As confidentially submitted to the Securities and Exchange Commission on May 14, 2021
Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ICOSAVAX, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

2836
(Primary Standard Industrial Classification Code Number)

82-3640549
(I.R.S. Employer Identification No.)

1616 Eastlake Avenue E., Suite 208
Seattle, Washington 98102
(206) 737-0085

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Adam Simpson
Chief Executive Officer
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(206) 737-0085

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "non-accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

☐ Large accelerated filer ☐ Accelerated filer ☐
☐ Non-accelerated filer ☐ Smaller reporting company ☒
☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

<table>
<thead>
<tr>
<th>Title of Each Class of Securities To Be Registered</th>
<th>Proposed Maximum Aggregate Offering Price (1)</th>
<th>Amount of Registration Fee (2)</th>
</tr>
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<tbody>
<tr>
<td>Common Stock, $0.0001 par value per share</td>
<td>$</td>
<td>$</td>
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(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes shares of common stock that the underwriters have the option to purchase.

(2) Calculated to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.
The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED , 2021

PRELIMINARY PROSPECTUS

We are offering shares of our common stock. This is the initial public offering of our common stock.

Prior to this offering, there has been no public market for our shares. We expect that the initial public offering price will be between $ and $ per share. We intend to apply to list our common stock on the Nasdaq Global Market under the symbol “ICVX.”

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of the material risks of investing in our common stock under the heading “Risk Factors” starting on page 11 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission approved or disapproved of the securities that may be offered under this prospectus, nor have any of these organizations determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

<table>
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<tr>
<th>PER SHARE</th>
<th>TOTAL</th>
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<tr>
<td>Public offering price</td>
<td>$</td>
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<tr>
<td>Underwriting discount (1)</td>
<td>$</td>
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<tr>
<td>Proceeds, before expenses, to us</td>
<td>$</td>
</tr>
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(1) We refer you to “Underwriting” beginning on page 169 of this prospectus for additional information regarding underwriting compensation.

Delivery of the shares of common stock is expected to be made on or about , 2021.

We have granted the underwriters an option for a period of 30 days to purchase an additional shares of our common stock. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $ , and the total proceeds to us, before expenses, will be $ .

Jefferies  Cowen  Evercore ISI  William Blair

The date of this prospectus is , 2021.
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Neither we nor the underwriters have authorized anyone to provide you with information other than that contained in this prospectus or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus or any free writing prospectus is accurate only as of its date, regardless of its time of delivery or of any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Through and including , 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery is in addition to a dealer’s obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

For investors outside of the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.
This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the sections titled “Risk Factors” and “Management's Discussion and Analysis of Financial Condition and Results of Operations,” and our financial statements and related notes included elsewhere in this prospectus, before making an investment decision. As used in this prospectus, unless the context otherwise requires, references to “we,” “us,” “our,” “the Company” and “Icosavax” refer to Icosavax, Inc.

Overview
We are a biopharmaceutical company leveraging our innovative virus-like particle (VLP) platform technology to develop vaccines against infectious diseases, with an initial focus on life-threatening respiratory diseases. Our VLP platform technology is designed to enable multivalent, particle-based display of complex viral antigens, which we believe will induce broad, robust, and durable protection against the specific viruses targeted. Our pipeline includes vaccine candidates targeting some of the most prevalent viral causes of pneumonia. We are developing these candidates for older adults, a patient population with high unmet need. Our lead vaccine candidate is IVX-A12, a bivalent combination of IVX-121, a vaccine candidate designed to target respiratory syncytial virus (RSV), and IVX-241, a vaccine candidate designed to target human metapneumovirus (hMPV). There are currently no vaccines approved for either RSV or hMPV, which are two of the leading causes of pneumonia in older adults. We plan to initiate a clinical trial of IVX-121 in , with topline data expected in . Assuming favorable results from the IVX-121 clinical trial and favorable preclinical data for IVX-241, we plan to initiate a clinical trial of our combination vaccine candidate, IVX-A12, in . Additionally, we are developing two severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccine candidates, IVX-411 and IVX-421, and expect to initiate a clinical trial of IVX-411 in , with proof-of-concept data expected in . We believe that our pipeline and platform can deliver a meaningful impact globally in preventing life-threatening infectious diseases.

Global Vaccine Market Opportunity
The global market for vaccines was over $50 billion in 2020, of which over $12.5 billion was from vaccines for influenza and pneumococcus, two of the leading causes of pneumonia. Lower respiratory infection, including pneumonia, is the leading cause of death and hospitalization from infections and the fourth highest cause of death globally. Older adults are particularly susceptible to respiratory pathogens and it is estimated that prior to COVID-19, lower respiratory infection caused over one million deaths globally in people over the age of 70 every year. RSV is estimated to cause 177,000 hospitalizations and 14,000 deaths in adults 65 years of age or older annually in the United States alone. Many of the viral causes of pneumonia have no approved vaccines, limited treatment options, and result in high morbidity and mortality in the older adult population. There are currently no marketed vaccines for RSV or hMPV, two of the leading causes of pneumonia.

Our Two-Component Computationally Designed VLP Technology
Our technology platform is based on the VLP approach to vaccine development. VLPs enable multivalent display of antigens in a manner that closely resembles viruses but contain no genetic material. Approved vaccines that are derived from naturally occurring VLPs have shown efficacy when formulated as combination vaccines, and have shown the ability to induce high and sustained levels (titers) of neutralizing antibodies (nAbs) in adults, which have generally been associated with protective immunity. However, VLPs engineered to display complex viral antigens have in general been difficult to develop or successfully manufacture at scale, limiting the pathogens that can be addressed by this approach.
Our vaccine technology is designed to enable the application of VLP-based vaccines against a broader array of pathogens than has been possible with naturally occurring VLPs and to overcome the manufacturing challenges experienced with these VLPs as well as other VLP technologies. Our licensed VLP technology encompasses VLPs formed from two protein components that are separately produced using traditional recombinant protein manufacturing techniques. The antigenic Component A consists of a trimeric protein that is genetically fused to the target antigen of interest and produced in eukaryotic cells. The second protein, Component B, is a pentameric structural protein that is produced by bacterial fermentation and is common across all candidates in our pipeline.

Using our VLP platform technology we engineer vaccine candidates comprised of self-assembling proteins that are designed to have the following potential benefits:

- **Robust, durable, and broad immune responses.** The icosahedral symmetry of our VLPs mimics viral geometry and is designed to allow for increased antigen density, which is known to trigger robust B cell responses. We believe that preclinical data support the potential of our platform to generate VLPs that induce high nAb levels, durable immunogenicity and cross-protection against related viral strains.

- **Potential to display complex heterologous antigens.** Our approach allows for the multivalent display of complex antigens that would not normally form into VLPs.

- **Highly scalable manufacturing and ease of purification.** Our two-component technology facilitates the use of standard, scalable recombinant protein methods for vaccine manufacturing and purification with well-established cell line and fermentation technologies.

- **Increased antigen stability.** Our VLPs are designed to confer increased stability to our vaccine candidates, which we believe will allow for improved storage and distribution.
Our Programs

Our initial focus is on developing vaccine candidates for viral causes of pneumonia in older adults. The following chart summarizes our current candidates.

<table>
<thead>
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<th>Target Indication</th>
<th>Antigens</th>
<th>Lead Candidate Selection</th>
<th>INI-Enabling Studies</th>
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<th>Phase 3</th>
<th>Commercial Rights</th>
<th>Anticipated Phase 1 initiation</th>
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<td>RSV/hMPV Bivalent</td>
<td>RSV</td>
<td>IVX-A12</td>
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<td>SARS-CoV-2</td>
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<td></td>
<td>Variant RBD</td>
<td>IVX-421</td>
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* IVX-121 RSV monovalent candidate development following Phase 1 to transition to evaluation as part of the IVX-A12 bivalent RSV/hMPV candidate

# Worldwide nonexclusive rights with exception of Korea, along with an option to convert to exclusive rights in North America and Europe

**IVX-A12 (RSV-hMPV vaccine candidate), a bivalent combination of IVX-121 (RSV vaccine candidate) and IVX-241 (hMPV vaccine candidate)**

Our lead vaccine candidate, IVX-A12, is a bivalent combination of IVX-121, which is designed to target RSV, and IVX-241, which is designed to target hMPV. IVX-121 and IVX-241 have been designed to display prefusion stabilized F antigens of RSV and hMPV, respectively. The F (fusion) proteins of these viruses are critical for viral entry. F proteins are also one of the main targets for nAbs and are a focus of most vaccine efforts for trimeric respiratory viruses such as RSV and hMPV. A prefusion stabilized form of the RSV F antigen, DS-Cav1, has been demonstrated in third party clinical trials to be a robust immunogen. An initial clinical trial with DS-Cav1 showed an induction of nAb titers much higher than had previously been seen with other vaccine approaches to RSV. We have incorporated DS-Cav1 into our VLP candidate IVX-121. Preclinical data with hMPV antigens provide support for the F antigen as a potential target for protective immunity, and we have incorporated a prefusion F antigen into our VLP candidate IVX-241. We believe that multivalent display of these prefusion F antigens on the surface of our VLPs has the potential to induce a robust nAb response capable of conferring protection against infection, which we plan to assess in clinical trials.

We plan to initiate clinical development of IVX-A12 with a clinical trial of IVX-121. We plan to file a clinical trial application (CTA) in Belgium for IVX-121 in and, thereafter, initiate a Phase 1/1b clinical trial to assess the safety and immunogenicity of IVX-121 in adults aged 18-45 and 60-70. We expect to report topline data from this trial in. Assuming favorable results, we plan to submit an investigational new drug application (IND) to the U.S. Food and Drug Administration (FDA) and, thereafter, initiate a Phase 1 clinical trial of IVX-A12 in to assess its safety and immunogenicity in adults aged 18-45 and 60-85. We believe that a bivalent VLP vaccine targeting RSV and hMPV is the optimal approach to prevent these two leading causes of pneumonia, neither of which has an approved vaccine to date.

**SARS-CoV-2**

In addition to RSV and hMPV, we are developing two SARS-CoV-2 VLP vaccine candidates, IVX-411 and IVX-421. IVX-411 is designed to present 60 copies of the receptor binding domain (RBD) protein from the SARS-CoV-2 virus strain first identified in China (original viral strain). IVX-421 has been designed with a similar structure and incorporates the key B.1.351 RBD mutations found in the variant strain first identified in South Africa (B.1.351 variant strain). The SARS-CoV-2 vaccine landscape is currently very crowded, with several vaccines having received Emergency Use Authorization (EUA) from the FDA and similar authorizations from other regulatory authorities, as well as additional vaccine candidates in development. However, we believe that given the global demand for SARS-CoV-2 vaccines, our vaccine candidates, if successfully developed and approved, may help address specific gaps in access, either as primary vaccines or as boosters to already
authorized vaccines. In October 2020, we announced a grant for $10 million, awarded by the Bill & Melinda Gates Foundation, a global non-profit dedicated to improving global health. We are using this grant to evaluate IVX-411 in an initial Phase 1/2 clinical trial where we plan to assess its safety and potential to induce a robust functional immune response against the original viral strain as well as emerging viral variants. We will also be evaluating the potential of IVX-411 to stimulate increased nAb titers in previously vaccinated individuals for its potential use as a booster vaccine. We plan to initiate the Phase 1/2 trial in . We will evaluate our plans for the clinical development of IVX-421 based on the initial results from this trial as well as the results of additional preclinical studies planned to evaluate IVX-421.

Our Strategy
Our goal is to utilize our VLP platform technology to develop vaccines against infectious diseases with an initial focus on life-threatening respiratory diseases. Key elements of our strategy include:

- advancing our combination RSV-hMPV VLP vaccine candidate, IVX-A12, through clinical development and regulatory approval for the prevention of respiratory disease and pneumonia in older adults;
- leveraging our VLP platform technology to pursue additional vaccine candidates in indications with high unmet need;
- building manufacturing scale-up capability early in the development process;
- further optimizing our VLP platform technology; and
- maximizing the value of our vaccine candidates through selective partnerships.

Our Team and Investors
We were formed in 2017 to advance the breakthrough VLP technology from the Institute for Protein Design at the University of Washington (UW IPD) with the goal to discover, develop, and commercialize vaccines against infectious diseases. We have assembled an experienced management team, board of directors, and scientific advisory board, who bring extensive industry experience to our company. Our scientific co-founders, Neil King and David Baker, are world leaders in protein design. The Chair of our Board of Directors, Tachi Yamada, is a leader in vaccine development, as the previous head of Global Health at the Bill & Melinda Gates Foundation as well as the previous Chief Medical and Scientific Officer at Takeda responsible for expanding their vaccine business unit. Our CEO, Adam Simpson, has over 20 years of experience in the biotechnology industry, and previously served as CEO of PvP Biologics, a company based on IPD recombinant protein technology, which was acquired by Takeda. Other members of our executive team have deep experience in discovering, developing, manufacturing, and commercializing pharmaceuticals, including vaccines. This includes having worked at major pharmaceutical companies such as GlaxoSmithKline, Novartis, and Takeda.

Since our inception we have raised over $150 million from leading investors in the life science and biotechnology industry, including Qiming Venture Partners USA, Adams Street Partners, RA Capital Management, Sanofi Ventures, ND Capital, Janus Henderson Investors, Perceptive Advisors, Viking Global Investors, Open Philanthropy, Cormorant Asset Management, Omega Funds, and Surveyor Capital (a Citadel company).

Summary of Risks Related to Our Business
Our ability to execute our business strategy is subject to numerous risks, as more fully described in “Risk Factors” immediately following this Prospectus Summary. These risks include, among others:

- We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.
- We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.
We are early in our development efforts and all of our development programs are still in preclinical development. If we are unable to successfully develop, obtain regulatory approval or ultimately commercialize vaccine candidates, or experience significant delays in doing so, our business will be materially harmed.

Our approach to the discovery and development of vaccine candidates is unproven, including our plan to pursue combination vaccine candidates using our VLP technology, and we do not know whether we will be able to develop any products of commercial value, or if competing approaches will limit the commercial value of our vaccine candidates.

Our business is highly dependent on the success of IVX-A12, which is in the early stages of development. If we are unable to obtain approval for IVX-A12 or effectively commercialize IVX-A12, our business would be significantly harmed.

Preclinical and clinical development involves a lengthy and expensive process with an uncertain outcome, and the results of preclinical studies and early clinical trials are not necessarily predictive of future results. We have not tested any of our vaccine candidates in clinical trials and our vaccine candidates may not have favorable results in clinical trials, if any, or receive regulatory approval on a timely basis, if at all.

Any difficulties or delays in the commencement or completion, or the termination or suspension, of our planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue or adversely affect our commercial prospects.

We rely on third parties to conduct many of our preclinical studies and will rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements or meet expected deadlines, our development programs and our ability to seek or obtain regulatory approval for or commercialize our vaccine candidates may be delayed.

We rely on third parties for the manufacture of our vaccine candidates for preclinical and clinical development and expect to continue to do so for the foreseeable future. This reliance on third parties increases the risk that we will not have sufficient quantities of our vaccine candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We face significant competition, and if our competitors develop technologies or vaccine candidates more rapidly than we do or their technologies are more effective, our business and our ability to develop and successfully commercialize products may be adversely affected.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our business is subject to risks arising from the COVID-19 pandemic and other epidemic diseases.

If we are unable to obtain and maintain patent protection for our vaccine candidates, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our vaccine candidates may be adversely affected.

We rely heavily on certain license agreements with the University of Washington (UW) and also depend on intellectual property licensed from other third parties, and these licensors may not always act in our best interest. If we fail to comply with our obligations under our intellectual property licenses, if the licenses are terminated, or if disputes regarding these licenses arise, we could lose significant rights that are important to our business.

Corporate Information
We were originally founded as a Delaware corporation on November 1, 2017. Our principal executive offices are located at 1616 Eastlake Avenue E., Suite 208, Seattle, Washington 98102, and our telephone number is (206) 737-0085. Our website address is www.icosavax.com. The information contained in, or accessible through, our website does not constitute part of this prospectus. We have included our website address as an inactive textual reference only.
We use our trademarks in this prospectus as well as trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). As an emerging growth company, we may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management's Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (Sarbanes-Oxley);
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, unless the SEC determines the new rules are necessary for protecting the public;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended (the Securities Act), which such fifth anniversary will occur in 2026. However, if certain events occur prior to the end of such five-year period, including if we become a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934 (the Exchange Act), our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in this prospectus and in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information in this prospectus and that we provide to our stockholders in the future may be different than what you might receive from other public reporting companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. We intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of Sarbanes-Oxley.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.
## THE OFFERING

| Common stock offered by us | shares. |
| Common stock to be outstanding immediately after this offering | shares (or shares if the underwriters exercise their option to purchase additional shares of common stock in full). |
| Option to purchase additional shares | The underwriters have a 30-day option to purchase up to a total of additional shares of our common stock. |
| Use of proceeds | We estimate that the net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares of common stock in full), based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds of this offering, together with our existing cash and restricted cash, to fund the continued development of IVX-A12, to fund ongoing development of our other vaccine candidates and for working capital and general corporate purposes. See the section titled “Use of Proceeds.” |
| Risk factors | See the section titled “Risk Factors” and other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our common stock. |
| Proposed Nasdaq Global Market symbol | ICVX |

The number of shares of our common stock to be outstanding after this offering set forth above is based on shares of our common stock outstanding as of March 31, 2021, including shares subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 89,908,215 shares of our common stock immediately prior to the closing of this offering, and excludes:

- shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock reserved for future issuance under our 2021 Incentive Plan (the 2021 Plan), which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan); and
- shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan (the ESPP), which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP).

Unless otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws, each of which will occur immediately prior to the closing of this offering;
- the automatic conversion of all outstanding shares of our convertible preferred stock into 89,908,215 shares of our common stock immediately prior to the closing of this offering;
- a 1-for-1 reverse stock split of our common stock to be effected before the closing of this offering;
- no exercise of the outstanding options described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.
The following tables summarize our financial data as of and for the periods indicated. We have derived the summary statements of operations and comprehensive loss data for the years ended December 31, 2019 and 2020 from our audited financial statements included elsewhere in this prospectus. We have derived the summary statements of operations and comprehensive loss data for the three months ended March 31, 2020 and 2021 and the summary balance sheet data as of March 31, 2021 from our unaudited interim condensed financial statements included elsewhere in this prospectus. Our unaudited interim condensed financial statements have been prepared on a basis consistent with our audited financial statements and, in the opinion of management, reflect all adjustments, consisting solely of normal recurring adjustments, necessary for the fair presentation of the financial information in those statements.

Our historical results are not necessarily indicative of the results that may be expected in the future. The following summary financial data should be read in conjunction with the section of this prospectus titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited financial statements and related notes included elsewhere in this prospectus.

<table>
<thead>
<tr>
<th>Statement of Operations and Comprehensive Loss Data:</th>
<th>YEAR ENDED DECEMBER 31,</th>
<th>THREE MONTHS ENDED MARCH 31,</th>
<th>(in thousands, except share and per share data)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2020</td>
<td>2020 (unaudited)</td>
</tr>
<tr>
<td>Grant revenue</td>
<td>$ —</td>
<td>$ 1,616</td>
<td></td>
</tr>
<tr>
<td>Operating expenses:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>$ 4,157</td>
<td>$ 17,667</td>
<td></td>
</tr>
<tr>
<td>General and administrative</td>
<td>$ 1,241</td>
<td>$ 2,659</td>
<td></td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>$ 5,398</td>
<td>$ 20,326</td>
<td></td>
</tr>
<tr>
<td>Loss from operations</td>
<td>(5,398)</td>
<td>(18,710)</td>
<td></td>
</tr>
<tr>
<td>Other income (expense):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in fair value of embedded derivative liability</td>
<td>—</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Interest and other income (expense)</td>
<td>$ 101</td>
<td>(331)</td>
<td></td>
</tr>
<tr>
<td>Total other income (expense)</td>
<td>$ 101</td>
<td>(44)</td>
<td></td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>(5,297)</td>
<td>(18,854)</td>
<td></td>
</tr>
<tr>
<td>Series 1 preferred stock dividends</td>
<td>—</td>
<td>(272)</td>
<td></td>
</tr>
<tr>
<td>Series 1 preferred stock extinguishment</td>
<td>(400)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Net loss attributable to common stockholders, basic and diluted (1)</td>
<td>$ (5,969)</td>
<td>(18,854)</td>
<td></td>
</tr>
<tr>
<td>Net loss per share attributable to common stockholders, basic and diluted (1)</td>
<td>$ (0.90)</td>
<td>$ (2.02)</td>
<td></td>
</tr>
<tr>
<td>Weighted-average shares of common stock outstanding, basic and diluted (1)</td>
<td>6,600,083</td>
<td>9,331,305</td>
<td></td>
</tr>
<tr>
<td>Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited) (2)</td>
<td></td>
<td></td>
<td>$ (0.44)</td>
</tr>
<tr>
<td>Pro forma weighted average common shares outstanding, basic and diluted (unaudited) (2)</td>
<td></td>
<td></td>
<td>42,557,462</td>
</tr>
</tbody>
</table>

(1) See Note 2 to our audited financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the basic and diluted net loss per share attributable to common stockholders and the number of shares used in the computation of the per share amounts.
The calculations for the unaudited pro forma net loss per share attributable to common stockholders, basic and diluted, excludes the $187,000 change in fair value of the embedded derivative liability and $417,000 of interest expense from the convertible notes, resulting in pro forma net loss per share attributable to common stockholders of $18.6 million for 2020. The unaudited pro forma weighted average common shares outstanding, basic and diluted, assume the conversion of all of our outstanding shares of preferred stock into 32,198,879 shares of our common stock, as if the conversion had occurred at the beginning of the period presented, or the issuance date, if later, and the conversion of our convertible notes into shares of our common stock, resulting in an additional 1,027,278 weighted average shares of our common stock.

### Balance Sheet Data:

<table>
<thead>
<tr>
<th></th>
<th>ACTUAL (unaudited)</th>
<th>PRO FORMA AS ADJUSTED (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Sheet Data:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and restricted cash</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Working capital (4)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Total liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convertible preferred stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulated deficit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total stockholders' deficit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(2) Gives effect to (i) the automatic conversion of all outstanding shares of convertible preferred stock into an aggregate of 89,908,215 shares of our common stock and the related reclassification of the convertible preferred stock to permanent equity in connection with the closing of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur immediately prior to the closing of this offering.

(3) Pro forma as adjusted balance sheet data is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, would increase (decrease) pro forma as adjusted cash and restricted cash, working capital, total assets and total stockholders’ deficit by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions. We may also increase or decrease the number of shares we are offering. A one million share increase (decrease) in the number of shares offered by us would increase or decrease pro forma as adjusted cash and restricted cash, working capital, total assets and total stockholders’ deficit by approximately $ million, assuming that the assumed initial offering price to the public remains the same, and after deducting estimated underwriting discounts and commissions.

(4) We define working capital as current assets less current liabilities. See our financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.
Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our financial statements and related notes included elsewhere in this prospectus and the section titled “Management's Discussion and Analysis of Financial Condition and Results of Operations”, before making an investment decision. If any of the following risks are realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See "Special Note Regarding Forward-Looking Statements."

Risks Related to Our Limited Operating History, Financial Position and Capital Requirements

We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.

Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We are a biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. We commenced operations in 2017, and, to date, we have focused primarily on organizing and staffing our company, business planning, raising capital, in-licensing intellectual property rights related to and developing our VLP platform technology, identifying vaccine candidates, establishing our intellectual property portfolio, process development for manufacturing, manufacturing our product candidates to support preclinical studies and clinical trials, and preparing for our ongoing and planned preclinical studies and clinical trials. Our approach to the discovery and development of vaccine candidates based on our VLP platform technology is unproven, and we do not know if any of our vaccine candidates will succeed in clinical development or become products of commercial value.

In addition, all of our vaccine candidates are in the preclinical stage. We have not yet commenced or completed any clinical trials, obtained regulatory approvals, manufactured a commercial-scale product or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Consequently, any predictions made about our future success or viability may not be as accurate as they would be if we had a history of successfully developing and commercializing vaccines.

We have incurred significant operating losses since our inception. We do not have any products approved for sale and have not generated any revenue since our inception. If our vaccine candidates are not successfully developed and approved, we may never generate any significant revenue. Our net losses were $5.3 million and $18.9 million for the years ended December 31, 2019 and December 31, 2020, respectively. As of December 31, 2020, we had an accumulated deficit of $27.1 million. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. All of our vaccine candidates will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase substantially as we continue our development of, seek regulatory approval for and potentially commercialize any of our vaccine candidates and seek to identify, assess, acquire, in-license or develop additional vaccine candidates.

To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical studies and clinical trials of our vaccine candidates, obtaining regulatory approval for these vaccine candidates, and manufacturing, marketing and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability. In addition, we have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently
encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical industry. Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when or if, we will be able to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable may have an adverse effect on the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our vaccine candidates or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.

The development of vaccine candidates is capital-intensive. We expect our expenses to increase in connection with our ongoing activities, particularly as we conduct our ongoing and planned preclinical studies and initiate clinical trials for our vaccine candidates, and seek regulatory approval for our current vaccine candidates and any future vaccine candidates we may develop. In addition, if we are able to progress our vaccine candidates through development and commercialization, we will need to make milestone payments to the licensors and other third parties from whom we have in-licensed or acquired our VLP platform technology or other technologies necessary for our vaccine candidates. If we obtain regulatory approval for any of our vaccine candidates, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. Because the outcome of any preclinical study or clinical trial is highly uncertain, we cannot reliably estimate the actual amounts necessary to successfully complete the development and commercialization of our vaccine candidates. Furthermore, following the completion of this offering, we expect to incur additional costs associated with operating as a public company.

Based on our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and restricted cash, will enable us to fund our operations for at least the next months from the date of this prospectus. In particular, we expect that the net proceeds from this offering and our existing cash will allow us to . We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. The net proceeds of this offering, together with our existing cash and restricted cash, will not be sufficient to complete development of IVX-A12, IVX-411, or any other vaccine candidate, and after this offering, we will require substantial capital in order to advance our current and future vaccine candidates through clinical trials, regulatory approval and commercialization. Accordingly, we will need to seek additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other capital sources, including potential collaborations, licenses, non-dilutive sources of financing, such as grants, and other similar arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop our vaccine candidates.

Our future capital requirements will depend on many factors, including, but not limited to:

- the initiation, type, number, scope, results, costs and timing of, our ongoing and planned preclinical studies and clinical trials of our vaccine candidates or other potential product candidates we may choose to pursue in the future, including any modifications to our preclinical or clinical development plans based on feedback that we may receive from regulatory authorities;
- the costs and timing of manufacturing for current or future product candidates, including commercial scale manufacturing, if any product candidate is approved;
- the costs, timing and outcome of regulatory reviews of current or future product candidates;
- any delays and cost increases that may result from the COVID-19 pandemic;
the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
the costs associated with hiring additional personnel and consultants as our business grows, including additional executive officers and clinical development personnel;
the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements;
the timing and amount of the milestone or other payments we must make to current and future licensors;
the costs and timing of establishing or securing sales and marketing capabilities if any current or future product candidates are approved;
our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
vaccine recipients’ willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors; and
costs associated with any products or technologies that we may in-license or acquire.

Further, identifying potential vaccine candidates and conducting preclinical studies and clinical trials is a time consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and commercialize our vaccine candidates. If approved, our vaccine candidates may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or vaccine candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses and other similar arrangements. In addition, though we may seek non-dilutive grant funding or collaborations to fund the continued development, preclinical studies and clinical trials of our Sars-CoV-2 vaccine candidates, we may not be successful in securing such funding in a sufficient amount, if at all. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Such restrictions could adversely impact our ability to conduct our operations and execute our business plan.

If we raise additional funds through future collaborations, licenses and other similar arrangements, we may be required to relinquish valuable rights to our future revenue streams, research programs, vaccine candidates or proprietary technology, or grant licenses on terms that may not be favorable to us and/or that may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed or on terms acceptable to us, we would be required to delay, limit, reduce, or terminate our product development or future commercialization efforts or grant rights to develop and market vaccine candidates that we might otherwise prefer to develop and market ourselves.
Risks Related to the Discovery, Development and Regulatory Approval of Our Vaccine Candidates

We are early in our development efforts and all of our development programs are still in preclinical development. If we are unable to successfully develop, obtain regulatory approval or ultimately commercialize vaccine candidates, or experience significant delays in doing so, our business will be materially harmed.

We are early in our development efforts and have only five vaccine candidates, IVX-121, IVX-241, IVX-411, IVX-421 and IVX-A12, in preclinical development. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our vaccine candidates. The success of our vaccine candidates will depend on several factors, including the following:

- successful completion of preclinical studies with favorable results, including toxicology and other studies designed to be compliant with good laboratory practices (GLP) and dose finding studies in animals;
- acceptance of INDs by the FDA, or of similar regulatory filings by comparable foreign regulatory authorities for the conduct of clinical trials of our vaccine candidates and our proposed design of future clinical trials;
- successful initiation and enrollment of clinical trials and completion of clinical trials with favorable results;
- demonstrating the safety, purity, immunogenicity and efficacy of our vaccine candidates to the satisfaction of applicable regulatory authorities;
- receipt of marketing approvals from applicable regulatory authorities, including approvals of biologics license applications (BLAs) from the FDA, and maintaining such approvals;
- making arrangements with our third-party manufacturers for, or establishing, commercial manufacturing capabilities;
- establishing sales, marketing and distribution capabilities and launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- establishing and maintaining patent and trade secret protection or regulatory exclusivity for our vaccine candidates;
- maintaining an acceptable safety profile of our products following approval; and
- maintaining and growing an organization of people who can develop and commercialize our products and technology.

In addition, our development plan for our IVX-A12 program targets the population of adults greater than 60 years of age. Our interactions and feedback from regulatory agencies could limit our target population to a subset of this population such as a more narrow age range or individuals without certain underlying health conditions common within this age range. These restrictions could negatively impact our ability to complete clinical trials along our planned timeline and could limit our commercial potential.

If we are unable to develop, obtain regulatory approval for, or, if approved, successfully commercialize our vaccine candidates, we may not be able to generate sufficient revenue to continue our business.

Our approach to the discovery and development of vaccine candidates is unproven, including our plan to pursue combination vaccine candidates using our VLP technology, and we do not know whether we will be able to develop any products of commercial value, or if competing approaches will limit the commercial value of our vaccine candidates.

The success of our business depends primarily upon our ability to identify, develop and commercialize our vaccine candidates based on our VLP platform technology. While there are a number of approved vaccines based on VLPs, we have not yet succeeded and may not succeed in demonstrating safety, purity, immunogenicity, and/or efficacy for any vaccine candidates based on our VLP platform technology in clinical trials or in obtaining marketing approval thereafter. Our lead vaccine candidate, IVX-A12, is in the late preclinical development stage, and we have not yet submitted an IND or commenced or completed any clinical trials for any of our vaccine candidates. In addition, while we believe our pipeline will yield multiple additional INDs for our development programs in the future, we may not be successful in our discovery efforts, and even if successful, we may not be able to submit INDs and have such INDs authorized to enable us to commence clinical trials on the timelines we expect, if at all. Our research methodology and VLP technology may be unsuccessful in identifying additional vaccine candidates, and any vaccine candidates may be shown to have harmful side effects or may have other characteristics that may necessitate additional clinical testing or make the vaccine candidates unmarketable or unlikely to receive marketing approval. If
any of these events occur, we may be forced to abandon our development efforts for a program or programs, which would have a material adverse effect on our business and could potentially cause us to cease operations. Further, because all of our vaccine candidates and development programs are based on our VLP platform, adverse developments with respect to one of our programs may have a significant adverse impact on the actual or perceived likelihood of success and value of our other programs.

In addition, we are in the process of developing combination candidates using our VLP technology, such as IVX-A12, which we have not tested in clinical trials. Combining multiple product candidates may result in immunologic interference between product candidates, which may reduce the immunogenicity of either or both of the combined product candidates. We will not be able to ascertain the degree of immunologic interference, if any, between any product candidates within any of our combined product candidates in humans until our Phase 2 clinical trials.

We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process based on our VLP platform technology or transferring that process to third-party manufacturers, which may prevent us from completing our clinical trials or commercializing our vaccine candidates on a timely or profitable basis, if at all. In addition, since we have not yet entered clinical development, we do not know the specific doses that may be effective in clinical trials or, if approved, commercially. Any delays in finding a suitable dose may delay our anticipated clinical development timelines.

In addition, the biotechnology and biopharmaceutical industries are characterized by rapidly advancing and often competing technologies. Our future success will depend in part on our ability to maintain a competitive position with our VLP platform technology. While we believe that clinical data has shown that VLPs may perform more effectively than soluble proteins, to our knowledge there are no published clinical trials conducting a head-to-head comparison. Further, some preclinical studies have suggested that soluble proteins may perform with equal or greater efficacy than VLPs. If we fail to develop VLP technology superior to soluble proteins, or if we otherwise fail to stay at the forefront of technological change in utilizing our VLP platform to create and develop vaccine candidates, we may be unable to compete effectively. Our competitors may render our VLP platform technology obsolete, or limit the commercial value of our vaccine candidates, through advances in existing technological approaches or the development of new or different approaches, potentially eliminating the advantages that we believe we derive from our scientific approach and technologies. By contrast, adverse effects using VLP technologies generally may negatively impact the actual or perceived value of our VLP platform technology and potential of our vaccine candidates. If any of these events occur, we may be forced to abandon our development efforts for our vaccine candidates, which would have a material adverse effect on our business and could potentially cause us to cease operations.

Our business is highly dependent on the success of IVX-A12, which is in the early stages of development. If we are unable to obtain approval for IVX-A12 or effectively commercialize IVX-A12, our business would be significantly harmed.

We have invested a significant portion of our efforts and financial resources in developing our lead candidate, IVX-A12, a bivalent combination of our vaccine candidates IVX-121 and IVX-241. To date, we have only conducted independent preclinical studies of IVX-121 and IVX-241. We have not commenced clinical testing of IVX-121 or IVX-241, nor have we initiated preclinical studies or clinical trials of the combination of these vaccine candidates in IVX-A12. Although IVX-121 and IVX-241 have produced successful results in animal studies, IVX-A12 may not demonstrate the same properties in humans and may interact with human biological systems in unforeseen, ineffective or harmful ways. Our business prospects are highly dependent on our ability to develop, obtain marketing approval for and successfully commercialize IVX-A12, which will require us to succeed in a range of challenging activities that are subject to numerous risks and uncertainties, including those described in this “Risk Factors” section. Many of these risks and uncertainties are beyond our control, including the clinical development and regulatory approval process; potential threats to our intellectual property rights; and the manufacturing, marketing and sales efforts of any current or future third-party contractors. Furthermore, given the early stage of development of IVX-A12, it will be years before we are potentially able to demonstrate the safety and efficacy of IVX-A12 sufficient to warrant marketing approval, and we may never be able to do so. If we are unable to develop, receive marketing approval for and successfully commercialize IVX-A12, or if we experience delays as a result of any of these factors or otherwise, our business would be significantly harmed.
Preclinical and clinical development involves a lengthy and expensive process with an uncertain outcome, and the results of preclinical studies and early clinical trials are not necessarily predictive of future results. We have not tested any of our vaccine candidates in clinical trials and our vaccine candidates may not have favorable results in clinical trials, if any, or receive regulatory approval on a timely basis, if at all.

Preclinical and clinical development is expensive and can take many years to complete, and its outcome is inherently uncertain. We cannot guarantee that any preclinical studies or clinical trials will be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the preclinical study or clinical trial process. Despite promising preclinical or clinical results, any vaccine candidate can unexpectedly fail at any stage of preclinical or clinical development. The historical failure rate for vaccine candidates in our industry is high, particularly in the early stages of development.

The results from preclinical studies or clinical trials of a vaccine candidate or a competitor’s vaccine candidate in the same class may not predict the results of later clinical trials of such vaccine candidate, and interim, topline, or preliminary results of a clinical trial are not necessarily indicative of final results. Vaccine candidates in later stages of clinical trials may fail to show the desired safety and efficacy characteristics despite having progressed through preclinical studies and initial clinical trials. While we have conducted certain preclinical studies of certain of our vaccine candidates, we do not know whether they or our other potential vaccine candidates will perform in future clinical trials as they have performed in these prior studies. Specifically, immunosenescence in older adults (our targeted population) cannot be fully replicated in preclinical studies, which increases the risk that the results at certain dose levels or formulations of our vaccine candidates tested in our preclinical models may not be predictive of results in clinical trials. In addition, formulations and adjuvants can behave differently in different species, so results of preclinical studies with specific formulations may not be replicated in clinical trials. Animals used in preclinical studies are often highly inbred, with homogenous genetic backgrounds that lead to results that are not replicable across diverse human populations. Preclinical models of infection that rely on host-pathogen interactions that do not normally occur in nature can generate misleading results as the pathogens are not well adapted to replicate and infect the animals used in the model, making it possible to protect against infection with weaker immune responses than would be required to provide protection in humans from the same pathogen. For these reasons and others, it is not uncommon to observe results in clinical trials that are unexpected based on preclinical studies and early clinical trials, many vaccine candidates fail in clinical trials despite very promising early results, and a number of companies in the biopharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier preclinical studies and clinical trials.

As a result, we cannot be certain that our ongoing and planned preclinical studies and clinical trials will be successful. Any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our vaccine candidates in those and other indications, which could have a material adverse effect on our business, financial condition and results of operations.

Any difficulties or delays in the commencement or completion, or the termination or suspension, of our planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue or adversely affect our commercial prospects.

Before obtaining marketing approval from regulatory authorities for the sale of our vaccine candidates, we must conduct extensive clinical trials to demonstrate the safety, purity, immunogenicity and efficacy of the vaccine candidates in humans. Before we can initiate clinical trials for our vaccine candidates, we must submit the results of preclinical studies to the FDA or comparable foreign regulatory authorities along with other information, including information about vaccine candidate chemistry, manufacturing and controls and our proposed clinical trial protocol, as part of an IND or similar regulatory filing required for authorization to proceed with clinical development. For example, our planned initiation of a clinical trial for IVX-121 is subject to our submission of a CTA (the regulatory filing in Belgium, where we plan to conduct a Phase 1/1b trial of IVX-121) and acceptance of such CTA by the FAMHP (the Belgian regulatory authority), and our planned initiation of a clinical trial for IVX-A12 is subject to our submission of an IND and the acceptance of such IND by the FDA. Acceptance by the FDA of our planned IND will be subject to the FDA’s agreement with our proposal to initiate clinical trials of IVX-A12 based upon data from our Phase 1 clinical trial of IVX-121 and preclinical data with respect to IVX-241 and IVX-231. If the FDA does not agree with this proposal, it may require us to conduct clinical evaluation of IVX-241 before progressing to clinical evaluation of IVX-A12. The FAMHP, FDA or comparable foreign regulatory authorities may require us to conduct
additional preclinical studies, or added clinical evaluation under any CTA, IND or similar regulatory filing, which may lead to delays and increase
the costs of our preclinical and clinical development programs. Moreover, even if we commence clinical trials, issues may arise that could cause
regulatory authorities to suspend or terminate such clinical trials. Any such delays in the commencement or completion of our ongoing and
planned clinical trials for our vaccine candidates could significantly affect our product development timelines and product development costs.

We do not know whether our planned clinical trials will begin on time or be completed on schedule, if at all. The commencement and completion
of clinical trials can be delayed for a number of reasons, including delays related to:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation or continuation of clinical
  trials;
- obtaining regulatory authorizations to commence a trial or reaching a consensus with regulatory authorities on trial design;
- the FDA or comparable foreign regulatory authorities disagreeing as to the implementation of our clinical trials;
- any failure or delay in reaching an agreement with contract research organizations (CROs) and clinical trial sites, the terms of which
  can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delays in identifying, recruiting and training suitable clinical investigators;
- obtaining approval from one or more institutional review boards (IRBs) or ethics committees at clinical trial sites;
- IRBs refusing to approve, suspending or terminating the trial at an investigational site, precluding enrollment of additional subjects, or
  withdrawing their approval of the trial;
- major changes or amendments to the clinical trial protocol;
- clinical sites deviating from the trial protocol or dropping out of a trial;
- failure by our CROs to perform in accordance with good clinical practice (GCP) requirements or applicable regulatory guidelines in
  other countries;
- manufacturing sufficient quantities of a vaccine candidate for use in clinical trials, which could be impacted by the COVID-19
  pandemic;
- subjects failing to enroll or remain in our trials at the rate we expect, or failing to return for post-treatment follow-up, including subjects
  failing to remain in our trials due to movement restrictions, heath reasons or otherwise resulting from the COVID-19 pandemic;
- individuals choosing an alternative vaccine for the indication for which we are developing our vaccine candidates, or participating in
  competing clinical trials;
- lack of adequate funding to continue the clinical trial;
- subjects experiencing severe or serious unexpected vaccine-related adverse effects;
- occurrence of vaccine-related serious adverse events in trials of other protein-based vaccine candidates conducted by other
  companies that could be considered similar to our vaccine candidates;
- selection of clinical endpoints that require prolonged periods of clinical observation or extended analysis of the resulting data;
- transfer of manufacturing processes to larger-scale facilities operated by a contract manufacturing organization (CMO), delays or
  failure by our CMOs or us to make any necessary changes to such manufacturing process, or failure of our CMOs to produce clinical
  trial materials in accordance with current good manufacturing (cGMP) regulations or other applicable requirements; and
- third parties being unwilling or unable to satisfy their contractual obligations to us in a timely manner.

In addition, disruptions caused by the COVID-19 pandemic may increase the likelihood that we encounter such difficulties or delays in initiating,
enrolling, conducting or completing our planned clinical trials. Specific COVID-19 or future pandemic-related mandates, such as mask-wearing
and limits to congregating, could also result in a diminished circulation of target respiratory viruses, which could result in challenges establishing
efficacy in our planned late-stage clinical trials that have endpoints specific to rates of infection in placebo- versus vaccine- treated groups.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being
conducted, by a Data Safety Monitoring Board for such trial or by the FDA or comparable
We may find it difficult to enroll subjects in our clinical trials. If we encounter difficulties enrolling subjects in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

Successful and timely completion of clinical trials will require that we identify and enroll a specified number of subjects for each of our clinical trials. We may not be able to initiate or continue clinical trials for our vaccine candidates if we are unable to identify and enroll a sufficient number of eligible subjects to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. Subject enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the subject population, the severity of the disease under investigation, the proximity of subjects to clinical sites, the eligibility and exclusion criteria for the trial, the design of the clinical trial, the ability to obtain and maintain informed consents, the risk that enrolled subjects will not complete a clinical trial, our ability to recruit clinical trial investigators with the appropriate competencies and experience, and competing clinical trials and clinicians’ and subjects’ perceptions as to the potential advantages and risks of the vaccine candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating as well as any vaccine candidates under development. For our planned Phase 1/2 trial in Australia of our SARS-CoV-2 candidate IVX-411, we intend to assess our product candidate as a booster vaccine following completion of an alternative licensed vaccine regimen. We are dependent on the ability to recruit subjects that have received a full vaccine regimen of an alternative vaccine and may be delayed if the vaccine rollout in Australia is slower than anticipated and we are therefore unable to recruit subjects at our projected pace. Additionally, across our anticipated clinical trials and target subjects, other pharmaceutical companies targeting these same diseases are recruiting clinical trial subjects from these target populations, which may make it more difficult to fully enroll our clinical trials.

In addition, the process of finding and diagnosing subjects may prove costly. The timing of our clinical trials depends, in part, on the speed at which we can recruit subjects to participate in our trials, as well as completion of required follow-up periods. The eligibility criteria of our clinical trials, once established, may further limit the pool of available trial participants. If subjects are unwilling or unable to participate in our trials for any reason, including the existence of concurrent clinical trials for similar target populations, negative perceptions of vaccines generally or of any of our vaccine candidates in particular, the availability of approved or authorized therapies, the effects of the COVID-19 pandemic, or the fact that enrolling in our trials would prevent subjects from taking a different vaccine, or we otherwise have difficulty enrolling a sufficient number of subjects, the timeline for recruiting subjects, conducting trials and obtaining regulatory approval of our vaccine candidates may be delayed. Our inability to enroll...
a specified number of subjects for any of our future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether. In addition, we rely on, and will continue to rely on, CROs and clinical trial sites to ensure proper and timely conduct of our preclinical studies and future clinical trials. Though we have entered into agreements governing their services, we will have limited influence over their actual performance.

We cannot assure you that our assumptions used in determining expected clinical trial timelines are correct or that we will not experience delays in enrollment, which would result in the delay of completion of such trials beyond our expected timelines.

If the incidence rates of infection for the specific pathogens we are targeting are smaller than we believe they are, our clinical development may be adversely affected, and our business may suffer.

Our projections of both the number of people who have respiratory diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our vaccine candidates, are based on our estimates. These estimates have been derived from a variety of sources, including scientific literature, epidemiologic surveys, and market research based on healthcare databases, and may prove to be incorrect or imprecise. In addition, precise incidence for all the respiratory conditions we aim to address with our vaccine candidates may vary from season to season, similar to influenza. Further, new trials or information may change the estimated incidence of these diseases. Our planned clinical trial sizes for later stage efficacy trials are based on our current estimates for rates of infection for the specific pathogens targeted by our vaccine candidates. If our estimates are incorrect, this may impact the number of subjects that need to be recruited for our clinical trials, may result in us having to repeat a clinical trial, or could impact the likelihood of success of our clinical development. In particular, the incidence rate of hMPV is uncertain. We are planning our own epidemiological assessment of hMPV and RSV infections in older adults prior to commencing our planned Phase 2b clinical trial to inform our determination of the size of the patient population to be enrolled in the trial. If the outcome of that assessment is a lower incidence rate than we are currently anticipating, we may need to plan for a larger Phase 2b clinical trial than we are currently planning for, which would result in increased clinical development costs.

Use of our vaccine candidates could be associated with adverse side effects, adverse events or other safety risks, which could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon a vaccine candidate, limit the commercial profile of an approved label or result in other significant negative consequences that could severely harm our business, prospects, operating results and financial condition.

As is the case with biopharmaceuticals generally, it is likely that there may be adverse side effects associated with our vaccine candidates’ use. We cannot provide assurance that our vaccine candidates will not have similar effects to other experimental or licensed vaccines as we have not evaluated any vaccine candidates in clinical trials.

We will monitor for expected and unexpected side effects in our clinical trials. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of expected or unexpected side effects. Vaccine-related side effects could affect subject recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. Undesirable side effects caused by our vaccine candidates when used alone or in combination with approved drugs, biologics or vaccines could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or lead to the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. Any of these occurrences may harm our business, financial condition and prospects significantly. For example, we plan to assess reactogenicity and immunogenicity of our RSV/hMPV bivalent candidate IVX-A12 when administered concurrently with a quadrivalent influenza vaccine in our planned Phase 2 clinical trial. This could lead to unanticipated side effects or interfere with the potential immunogenicity of IVX-A12. An inability to be dosed concurrently with a quadrivalent influenza vaccine could limit the commercial potential of IVX-A12.

Moreover, if our vaccine candidates are associated with undesirable side effects in clinical trials or have characteristics that are unexpected, we may elect to abandon their development or limit their development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective, which may limit the commercial expectations for the vaccine candidate if approved. We may also be required to modify our development and clinical trial plans based on findings after we commence clinical trials. Many compounds that initially showed promise in early-stage testing have later been found to cause side effects that prevented further development of the compound. In addition, regulatory authorities may draw different conclusions or require additional testing to confirm these determinations.
We will also monitor in our clinical trials for less common adverse events of special interest to regulatory authorities, such as enhanced respiratory disease after vaccination. It is possible that as we test our vaccine candidates in larger, longer and more extensive clinical trials, or if the use of these vaccine candidates becomes more widespread following regulatory approval, more illnesses, injuries, discomforts and other adverse events than were observed in earlier trials, as well as new conditions that did not occur or went undetected, may be discovered. If such side effects become known later in development or upon approval, if any, such findings may harm our business, financial condition and prospects significantly. In addition, if one or more of our vaccine candidates receives marketing approval, and we or others later identify undesirable side effects caused by such vaccine a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw, suspend or limit approvals of such vaccine or seek an injunction against its manufacture or distribution;
- we may be required to recall a vaccine or change the way such vaccine is administered to individuals;
- regulatory authorities may require additional warnings on the label, such as a “black box” warning or a contraindication;
- we may be required to implement a Risk Evaluation and Mitigation Strategy (REMS) or create a medication guide outlining the risks of such side effects for distribution to individuals;
- we may be required to change the way a vaccine is distributed or administered, conduct additional clinical trials or change the labeling of a vaccine or be required to conduct additional post-marketing studies or surveillance;
- we could be sued and held liable for harm caused to vaccine recipients;
- sales of the vaccine may decrease significantly or the vaccine could become less competitive; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular vaccine candidate, if approved, and could significantly harm our business, results of operations and prospects.

As an organization, we have never conducted any clinical trials, and may be unable to do so for any of our vaccine candidates. Our vaccine candidates are in the preclinical development stage and we will need to successfully initiate and complete our planned clinical trials in order to seek FDA or comparable foreign regulatory approval to market our vaccine candidates. Carrying out clinical trials and the submission of a successful BLA is a complicated process. We plan to conduct clinical trials for our vaccine candidates beginning in 2021, subject to receiving authorization to proceed with clinical trials under INDs or comparable applications submitted to foreign regulatory authorities. We have not previously conducted any clinical trials, have limited experience as a company in preparing, submitting and prosecuting regulatory filings and our company has not previously submitted an IND, BLA or other comparable foreign regulatory submission for any vaccine candidate. We also plan to conduct a number of clinical trials for multiple vaccine candidates in parallel over the next several years, which may be a difficult process to manage with our limited resources and which may divert the attention of management. In addition, through April 30, 2020 we have had limited interactions with only one regulatory authority outside the United States on our development and clinical trial plans. We have not had any discussions with the regulatory authority in Australia, where we plan to conduct a clinical trial for IVX-411, or more generally with the FDA. Therefore, we cannot be certain how many clinical trials of our vaccine candidates will be required or how such trials should be designed, or that we will not encounter material delays in our plans to commence clinical development. For example, we may be required to conduct additional preclinical studies of the individual vaccine candidates comprising our combination candidate, IVX-A12, prior to testing IVX-A12 in clinical trials. We may also be required to conduct clinical testing of our hMPV candidate IVX-241 prior to testing IVX-A12, which would cause a delay in the development of our IVX-A12 candidate. Consequently, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to regulatory submission and approval of any of our vaccine candidates. We may require more time and incur greater costs than our competitors and may not succeed in obtaining regulatory approvals of vaccine candidates that we develop. Failure to commence or complete, or delays in, our planned clinical trials, could prevent us from or delay us in submitting BLAs for and commercializing our vaccine candidates.
We have licensed the rights in our technology for a limited number of infectious diseases in certain jurisdictions, which may limit our ability to obtain regulatory approval, commercialize our vaccine candidates, or expand our pipeline to fully realize the commercial potential of our VLP platform.

We have a prescribed list of infectious disease applications for which we have obtained licenses from UW to develop vaccine candidates using our VLP technology platform. For certain infectious disease applications, such as SARS-CoV-2, these licenses may only be available to us in certain jurisdictions. Third parties may also have licensed or will license the same VLP technology from UW for use in infectious disease applications or jurisdictions where we do not have an exclusive license. Any adverse developments that occur during clinical trials related to these infectious disease applications conducted by third parties in other jurisdictions may result in delays, limitations or denials of regulatory approvals of our vaccine candidates, may cause regulators to require us to conduct additional clinical trials as a condition to marketing approval, may result in the withdrawal of any approvals of our vaccine candidates that we receive in the future, or may result in further restrictions on our ability to commercialize our vaccine candidates. Such adverse developments may also negatively impact the perception of our vaccine candidates, which may reduce the enrollment of subjects in our clinical trials or inhibit our ability to market our vaccine candidates in the future if approved. For example, SK Bioscience has initiated a Phase 1 clinical trial in South Korea for a vaccine candidate that is similar to IVX-411 and uses the same VLP technology that we have licensed from UW for our vaccine candidates, and adverse developments related to such clinical trial could negatively impact the development of IVX-411 and our other vaccine candidates.

In addition, the expansion of our pipeline to target additional infectious diseases for which we do not currently have a license will require us to seek additional licenses, which could increase our costs. Failure to acquire such licenses would reduce the infectious diseases that we may target with the vaccine candidates that we develop, which would prevent us from realizing the full potential of our VLP technology platform.

Our vaccine candidates are subject to extensive regulation and compliance, which is costly and time consuming, and such regulation and compliance may cause unanticipated delays or prevent the receipt of the required approvals and licenses to commercialize our vaccine candidates.

The clinical development, manufacturing, labeling, packaging, storage, record-keeping, advertising, promotion, import, export, marketing, distribution and adverse event reporting, including the submission of safety and other information, of our vaccine candidates are subject to extensive regulation by the FDA in the United States and by comparable foreign regulatory authorities in foreign markets. In the United States, we are not permitted to market our vaccine candidates until we receive regulatory approval from the FDA, which is referred to as licensure. The process of obtaining regulatory approval is expensive, often takes many years following the commencement of clinical trials and can vary substantially based upon the type, complexity and novelty of the vaccine candidates involved, as well as the target indications and populations. Approval policies or regulations may change, and the FDA has substantial discretion in the vaccine approval process, including the ability to delay, limit or deny approval of a vaccine candidate for many reasons. Despite the time and expense invested in clinical development of vaccine candidates, regulatory approval is never guaranteed. Neither we nor any current or future collaborator is permitted to market any of our vaccine candidates in the United States until we receive approval of a BLA from the FDA.

Prior to obtaining approval to commercialize a vaccine candidate in the United States or abroad, we or our collaborators must demonstrate with substantial evidence from adequate and well-controlled clinical trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that such vaccine candidates are safe, pure and potent for their intended uses. Results from preclinical studies and clinical trials can be interpreted in different ways. Even if we believe the preclinical or clinical data for our vaccine candidates are promising, such data may not be sufficient to support approval by the FDA and comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authorities, as the case may be, may also require us to conduct additional preclinical studies or clinical trials for our vaccine candidates either prior to approval or post-approval, or may object to elements of our clinical development program.
The FDA or comparable foreign regulatory authorities can delay, limit or deny approval of a vaccine candidate for many reasons, including:

- such authorities may disagree with the design or implementation of our current or future collaborators’ clinical trials;
- negative or ambiguous results from our clinical trials, or results may not otherwise meet the level of statistical significance required by the FDA or comparable foreign regulatory agencies for approval;
- serious and unexpected vaccine-related side effects may be experienced by participants in our clinical trials or by individuals using vaccines similar to our vaccine candidates;
- such authorities may not accept clinical data from trials that are conducted at clinical facilities or in countries where the standard of care is potentially different from those of their respective home countries;
- we or any of our current or future collaborators may be unable to demonstrate that a vaccine candidate is safe and effective, and that such vaccine candidate’s clinical and other benefits outweigh its safety risks;
- such authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- such authorities may not agree that the data collected from clinical trials of our vaccine candidates are acceptable or sufficient to support the submission of a BLA or other marketing application, and such authorities may impose requirements for additional preclinical studies or clinical trials;
- such authorities may disagree regarding the formulation, labeling and/or the specifications of our vaccine candidates;
- approval may be granted only for indications that are significantly more limited than what we apply for and/or be subject to other significant restrictions on distribution and use;
- such authorities may find deficiencies in the manufacturing processes, approval policies or facilities of our third-party manufacturers with which we or any of our future collaborators contract for clinical and commercial supplies;
- regulations of such authorities may significantly change in a manner rendering our or any of our potential future collaborators’ clinical data insufficient for approval; or
- such authorities may not accept a submission due to, among other reasons, the content or formatting of the submission.

Of the large number of vaccines and biologics in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects.

With respect to foreign markets, approval procedures vary among countries and, in addition to the foregoing risks, may involve additional product testing, administrative review periods and agreements with pricing authorities. In addition, events raising questions about the safety of certain marketed biopharmaceuticals may result in increased cautiousness by the FDA and comparable foreign regulatory authorities in reviewing new drugs based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals.

Further, the COVID-19 pandemic has created a more uncertain regulatory landscape that may adversely impact our ability to receive approvals for our vaccine candidates. For example, it is unclear how the increased population of individuals receiving SARS-CoV-2 vaccines will impact the approval processes of other vaccine candidates for SARS-CoV-2. In addition, there is a less clearly defined regulatory path for booster vaccines, which may be our target development path for our SARS-CoV-2 vaccine candidates. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us or any of our potential future collaborators from commercializing our vaccine candidates. We may expend our limited resources to pursue a particular vaccine candidate and fail to capitalize on vaccine candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on specific vaccine candidates, development programs and indications. We are also conducting and plan to conduct several clinical trials for multiple vaccine candidates in parallel over the next several years, which may make our decision as to which vaccine candidates to focus on more difficult. As a result, we may forgo or delay pursuit of opportunities with other vaccine candidates that
could have had greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products
or profitable market opportunities. Our spending on current and future research and development programs and vaccine candidates for specific
indications may not yield any commercially viable vaccine candidates. If we do not accurately evaluate the commercial potential or target market
for a particular vaccine candidate, we may relinquish valuable rights to that vaccine candidate through collaborations, licenses and other similar
arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such
vaccine candidate.

We may seek an EUA from the FDA or comparable emergency authorizations from foreign regulatory authorities with respect to
IVX-411 or IVX-421, and if we fail to obtain or maintain such authorizations, we may be required to pursue a more lengthy clinical
development process than we expect, and our business may be harmed.

We may seek an EUA from the FDA or comparable emergency authorizations with respect to our SARS-CoV-2 vaccine candidates, IVX-411 and
IVX-421. The FDA has the authority to issue an EUA during a public health emergency if it determines that, based on the totality of the scientific
evidence it is reasonable to believe that the product may be effective, that the known and potential benefits of the product outweigh the known
and potential risks, and that there are no adequate, approved, and available alternatives, and if other regulatory criteria are met. The FDA's
standards for granting an EUA are lower than for approving BLAs in accordance with traditional review procedures, and even if we seek and
obtain an EUA for one or more of our vaccine candidates, we cannot assure you that the FDA would approve a BLA for such vaccine candidate, if
such approval is required. Accordingly, even if we obtain an EUA for one or more of our vaccine candidates, we may be required to conduct
additional clinical trials before we are able to submit BLAs or comparable marketing applications for such vaccine candidates.

In addition, the FDA's policies regarding an EUA can change unexpectedly, and the FDA may revoke an EUA if the Secretary of Health and
Human Services determines that the underlying health emergency no longer exists or warrants such authorization, or if the FDA identifies safety
or efficacy concerns with the authorized product. We cannot predict how long any authorization, if obtained, will remain in place. The FDA's
policies regarding vaccines and other products used to diagnose, treat or mitigate COVID-19 remain in flux as the FDA responds to new and
evolving public health information and clinical evidence. Therefore, even if we obtain an EUA or other emergency authorizations for one or more
of our vaccine candidates, it is possible that such EUA or other authorizations may be revoked and we may be required to cease any
commercialization activities, which would adversely impact our business, financial condition and results of operations.

We plan to conduct certain of our clinical trials for our vaccine candidates outside of the United States. However, the FDA and other
foreign equivalents may not accept data from such trials, in which case our development plans will be delayed, which could materially
harm our business.

We plan to conduct one or more of our clinical trials for our vaccine candidates outside the United States, including a planned Phase 1/1b clinical
trial in Belgium of IVX-121 in adults aged 18-45 and 60-75 and a planned Phase 1/2 clinical trial of IVX-411 in Australia. Although the FDA may
accept data from clinical trials conducted outside the United States, acceptance of these data is subject to certain conditions imposed by the FDA.

Where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will not approve
the application on the basis of foreign data alone unless those data are applicable to the U.S. population and U.S. medical practice; the trials were
performed by clinical investigators of recognized competence; and the data are considered valid without the need for an on-site inspection by the
FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data from the clinical trial through an
appropriate means. For clinical trials that are conducted only at sites outside of the United States and not subject to an IND, the FDA requires the
clinical trial to have been conducted in accordance with GCPs, and the FDA must be able to validate the data from the clinical trial through an
on-site inspection if it deems such inspection necessary. For such trials not subject to an IND, the FDA generally does not provide advance
comment on the clinical protocols for the trials, and therefore there is an additional potential risk that the FDA could determine that the trial design
or protocol for a non-U.S. clinical trial was inadequate, which could require us to conduct additional clinical trials. There can be no assurance the
FDA will accept data from clinical trials conducted outside of the United States. If the FDA does not accept data from our clinical trials of our
vaccine candidates, it would likely result in the need for additional clinical trials, which would be costly and time consuming and delay or
permanently halt our development of our vaccine candidates.
Conducting clinical trials outside the United States also exposes us to additional risks, including risks associated with:

- additional foreign regulatory requirements;
- variability in expense due to foreign currency exchange fluctuations;
- compliance with foreign manufacturing, customs, shipment and storage requirements;
- cultural differences in medical practice and clinical research; and
- diminished protection of intellectual property in some countries.

**Interim, topline and preliminary data from our preclinical studies and clinical trials that we announce or publish from time to time may change as more subject data become available and are subject to audit and verification procedures that could result in material changes in the final data.**

From time to time, we may publicly disclose interim, preliminary or topline data from our preclinical studies and clinical trials, which are based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the interim, preliminary or topline results that we report may differ from future results of the same trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available.

In particular, we may disclose interim data from our preclinical studies and clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as subject enrollment continues and more clinical trial data become available. Adverse differences between interim data and final data could significantly harm our business prospects. Further, disclosure of interim data by us or by our competitors could result in volatility in the price of our common stock after this offering.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular vaccine candidate or product and the value of our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product, vaccine candidate or our business. If the interim, topline, or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our vaccine candidates may be harmed, which could harm our business, operating results, prospects or financial condition.

**Disruptions at the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire, retain or deploy key leadership and other personnel, or otherwise prevent new or modified products from being developed, approved or commercialized in a timely manner or at all, which could negatively impact our business.**

The ability of the FDA and other government agencies to review and approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory and policy changes, a government agency's ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the government agency's ability to perform routine functions. Average review times at the FDA and other government agencies have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for new biologics or modifications to approved biologics to be reviewed and/or approved by necessary government
agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities.

Separately, in response to the COVID-19 pandemic, on March 10, 2020, the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products. Subsequently, on March 18, 2020 the FDA temporarily postponed routine surveillance inspections of domestic manufacturing facilities. Subsequently, on July 10, 2020, the FDA announced its intention to resume certain on-site inspections of domestic manufacturing facilities subject to a risk-based prioritization system. The FDA intends to use this risk-based assessment system to identify the categories of regulatory activity that can occur within a given geographic area, ranging from mission-critical inspections to resumption of all regulatory activities. Additionally, on April 15, 2021, the FDA issued a guidance document in which the FDA described its plans to conduct voluntary remote interactive evaluations of certain drug manufacturing facilities and clinical research sites. According to the guidance, the FDA intends to request such remote interactive evaluations in situations where an in-person inspection would not be prioritized, deemed mission-critical, or where direct inspection is otherwise limited by travel restrictions, but where the FDA determines that remote evaluation would be appropriate. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Risks Related to Our Reliance on Third Parties

We rely on third parties to conduct many of our preclinical studies and will rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements or meet expected deadlines, our development programs and our ability to seek or obtain regulatory approval for or commercialize our vaccine candidates may be delayed.

We are dependent on third parties to conduct our preclinical studies and expect to rely on third parties for the conduct of our future clinical trials for our vaccine candidates, as well as any preclinical studies and clinical trials for our future vaccine candidates. Specifically, we have used and relied on, and intend to continue to use and rely on, medical institutions, clinical investigators, CROs and consultants to conduct our preclinical studies and intend to continue such reliance for our planned clinical trials, in each case in accordance with our clinical protocols and regulatory requirements. These CROs, investigators and other third parties play a significant role in the conduct and timing of these trials and subsequent collection and analysis of data. Though we carefully manage our relationships with our CROs, investigators and other third parties, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects. Further, we have and will have agreements governing the activities of our third-party contractors, we have limited influence over their actual performance. Nevertheless, we are responsible for ensuring that each of our preclinical studies and clinical trials are conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on our CROs and other third parties does not relieve us of our regulatory responsibilities. For example, toxicology studies of our vaccine candidates must be completed under GLP regulations and our or our CROs’ failure to comply with these regulations may delay our ability to initiate clinical trials. In addition, we and our CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our vaccine candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs or trial sites fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. Furthermore, our clinical trials must be conducted with vaccine candidates produced under CGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

There is no guarantee that any of our CROs, investigators or other third parties will devote adequate time and resources to our preclinical studies or clinical trials or perform as contractually required. If any of these third parties
fails to meet expected deadlines, adhere to our clinical protocols or meet regulatory requirements, or otherwise performs in a substandard manner, our clinical trials may be extended, delayed or terminated. In addition, many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting preclinical studies, clinical trials or other development activities that could harm our competitive position.

Principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection by the FDA of any BLA we submit. Any such delay or rejection could prevent us from commercializing our vaccine candidates.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach, and under other specified circumstances. If any of our relationships with these third parties terminate, we may not be able to enter into arrangements with alternative third parties on commercially reasonable terms or at all. Switching or adding additional CROs, investigators and other third parties involves additional cost and requires our management’s time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we work to carefully manage our relationships with our CROs, investigators and other third parties, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

We rely on third parties for the manufacture of our vaccine candidates for preclinical and clinical development and expect to continue to do so for the foreseeable future. This reliance on third parties increases the risk that we will not have sufficient quantities of our vaccine candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not own or operate manufacturing facilities and have no plans to develop our own clinical or commercial-scale manufacturing capabilities. We rely, and will continue to rely, on third parties for the manufacture of our vaccine candidates and related raw materials for preclinical and clinical development, as well as for commercial manufacture if any of our vaccine candidates receive marketing approval. The facilities used by third-party manufacturers to manufacture our vaccine candidates must be approved by the FDA and any comparable foreign regulatory authority pursuant to inspections that will be conducted after we submit an BLA to the FDA or any comparable submission to a foreign regulatory authority. We do not control the manufacturing process of, and are completely dependent on, third-party manufacturers for compliance with cGMP requirements for manufacture of products. In addition, we have no control over the ability of third-party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. Furthermore, the process of manufacturing biologics is complex and highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, other supply disruptions and higher costs. If microbial, viral or other contaminations are discovered at the facilities of our third-party manufacturers, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials, result in higher costs of drug product and adversely affect our business.

If our third-party manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or any comparable foreign regulatory authority, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. If the FDA or any comparable foreign regulatory authority does not approve these facilities for the manufacture of our vaccine candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our vaccine candidates, if approved. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, seizures or recalls of vaccine candidates or products, operating restrictions and criminal
prosecutions, any of which could significantly and adversely affect supplies of our products. Additionally, our third-party manufacturers may rely on single source suppliers for certain of the raw materials for our preclinical and clinical product supplies. If current or future suppliers are delayed or unable to supply sufficient raw materials to manufacture product for our preclinical studies and clinical trials, we may experience delays in our development efforts as materials are obtained or we locate and qualify new raw material manufacturers.

Our or a third party's failure to execute on our manufacturing requirements on commercially reasonable terms and in compliance with cGMP or other regulatory requirements could adversely affect our business in a number of ways, including:

- an inability to initiate clinical trials of our vaccine candidates under development;
- delay in submitting regulatory applications, or receiving marketing approvals, for our vaccine candidates;
- subjecting third-party manufacturing facilities or our potential future manufacturing facilities to additional inspections by regulatory authorities;
- requirements to cease development or to recall batches of our vaccine candidates; and
- in the event of approval to market and commercialize our vaccine candidates, an inability to meet commercial demands for our vaccine candidates or any other future vaccine candidates.

In addition, we may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- failure of third-party manufacturers to comply with regulatory requirements and maintain quality assurance;
- breach of the manufacturing agreement by the third party;
- failure to manufacture our product according to our specifications, our schedule, or at all;
- misappropriation of our proprietary information, including our trade secrets and know-how; and
- termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Our vaccine candidates and any products that we may develop may compete with other vaccine candidates and products for access to manufacturers and manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. In addition, the COVID-19 pandemic has reduced manufacturing capacity worldwide and limited access to materials needed to manufacture key components of our vaccine candidates. Further, certain of our in-license agreements require that vaccine products sold in the United States be manufactured in the United States, which limits the number of manufacturers available to us. Increased competition amongst developers to access manufacturers and materials could increase the costs of, or otherwise limit our ability to, manufacture our vaccine candidates.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval, and any related remedial measures may be costly or time consuming to implement. We do not currently have arrangements in place for redundant supply or a second source for all required raw materials used in the manufacture of our vaccine candidates. If our existing or future third-party manufacturers cannot perform as agreed, we may be required to replace such manufacturers and we may be unable to replace them on a timely basis or at all.

Our current and anticipated future dependence upon others for the manufacture of our vaccine candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

*We and our third-party manufacturers may face difficulty scaling up manufacturing capabilities which could delay our development timelines, or substantially increase our overall development costs.*

As part of our development strategy, we plan to initiate scale-up of manufacturing process development activities to enable incorporation of final process changes early in the overall development cycle. However, we may face significant challenges in this scale-up of manufacturing capabilities, including challenges with respect to large scale process development, analytical development and quality control testing, and manufacturing our vaccine candidates to our specifications and in a timely manner to support our preclinical and clinical trials. We may also face challenges in identifying and securing third-party manufacturers to support our manufacturing development activities.
and to produce sufficient quantities at an acceptable cost. Delays in establishing and scaling up our manufacturing process and in securing third-party manufacturers may materially delay or disrupt our development efforts, and increase our overall development costs.

**Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.**

Because we currently rely on third parties to manufacture our vaccine candidates and to perform quality testing, we must, at times, share our proprietary technology and confidential information, including trade secrets, with them. We seek to protect our proprietary technology, in part, by entering into confidentiality agreements, and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with our collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are intentionally or inadvertently incorporated into the technology of others or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets and despite our efforts to protect our trade secrets, a competitor's discovery of our proprietary technology and confidential information or other unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business, financial condition, results of operations and prospects.

**We may seek to enter into collaborations, licenses and other similar arrangements and may not be successful in doing so, and even if we are, we may relinquish valuable rights and may not realize the benefits of such relationships.**

We may seek to enter into collaborations, joint ventures, licenses and other similar arrangements for the development or commercialization of our vaccine candidates, due to capital costs required to develop or commercialize the vaccine candidate or manufacturing constraints. We may not be successful in our efforts to establish or maintain such collaborations for our vaccine candidates because our research and development pipeline may be insufficient, our vaccine candidates may be deemed to be at too early of a stage of development for collaborative effort or third parties may not view our vaccine candidates as having the requisite potential to demonstrate safety and efficacy or significant commercial opportunity. In addition, we face significant competition in seeking appropriate strategic partners, and the negotiation process can be time-consuming and complex. We may need to relinquish valuable rights to our future revenue streams, research programs, vaccine candidates or VLP platform, or grant licenses on terms that may not be favorable to us, as part of any such arrangement, and such arrangements may restrict us from entering into additional agreements with other potential collaborators. We cannot be certain that, following a collaboration, license or strategic transaction, we will achieve an economic benefit that justifies such transaction.

Even if we are successful in our efforts to establish such collaborations, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such collaborations if, for example, the development or approval of a vaccine candidate is delayed, the safety of a vaccine candidate is questioned or the sales of an approved vaccine candidate are unsatisfactory.

Collaborations involving our vaccine candidates would pose significant risks to us, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- we could grant exclusive rights to our collaborators that would prevent us from collaborating with others;
- collaborators may not pursue development and commercialization of any vaccine candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators’ strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a vaccine candidate, repeat or conduct new clinical trials or require a new formulation of a vaccine candidate for clinical testing;
collaborators could independently develop, or develop with third parties, vaccines that compete directly or indirectly with our vaccine candidates if the collaborators believe that competitive vaccines are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

− vaccine candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own vaccine candidates or drugs, which may cause collaborators to cease to devote resources to the commercialization of our vaccine candidates;
− a collaborator with marketing and distribution rights to one or more of our vaccine candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such vaccines;
− a collaborator’s sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings;
− disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays in or termination of the research, development or commercialization of vaccine candidates, might lead to additional responsibilities for us with respect to vaccine candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
− collaborators may not properly maintain or defend our or their intellectual property rights or may use our or their proprietary information in such a way as to invite litigation that could jeopardize or invalidate such intellectual property or proprietary information or expose us to potential litigation;
− collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
− collaborators may not provide us with timely and accurate information regarding development, regulatory or commercialization status or results, which could adversely impact our ability to manage our own development efforts, accurately forecast financial results or provide timely information to our stockholders regarding our out-licensed vaccine candidates;
− if a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated; and
− collaborations may be terminated, including for the convenience of the collaborator, and, if terminated, we may find it more difficult to enter into future collaborations or be required to raise additional capital to pursue further development or commercialization of the applicable vaccine candidates.

Any termination of collaborations we enter into in the future, or any delay in entering into collaborations related to our vaccine candidates, could delay the development and commercialization of our vaccine candidates and reduce their competitiveness if they reach the market, which could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Commercialization of Our Vaccine Candidates

Even if we receive regulatory approval for any vaccine candidate, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our vaccine candidates, if approved, could be subject to labeling and other restrictions on marketing or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our vaccine candidates, when and if any of them are approved.

Any regulatory approvals that we may receive for our vaccine candidates will require the submission of reports to regulatory authorities, subject us to surveillance to monitor the safety and efficacy of the product, may contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, and may include burdensome post-approval study or risk management requirements. For example, the FDA may require a REMS as a condition of approval of our vaccine candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our vaccine candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for our
products will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs and GCP requirements for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with our products, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary or mandatory product recalls;
- restrictions on product distribution or use, or requirements to conduct post-marketing studies or clinical trials;
- restrictions on our ability to conduct clinical trials, including full or partial clinical holds on ongoing or planned trials;
- fines, restitutions, disgorgement of profits or revenues, warning letters, untitled letters or holds on clinical trials;
- refusal by the FDA or other regulatory authorities to approve pending applications or supplements to approved applications submitted by us or suspension or revocation of approvals;
- warning letters, untitled letters, or adverse publicity requirements;
- product seizure or detention, or refusal to permit the import or export of our products; and
- injunctions or the imposition of civil or criminal penalties.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our vaccine candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity.

The FDA’s and other regulatory authorities’ policies may change and additional government regulations may be promulgated that could prevent, limit or delay marketing authorization of any product candidates we develop. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may be subject to enforcement action and we may not achieve or sustain profitability.

Our vaccine candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

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The Patient Protection and Affordable Care Act (as amended by the Health Care and Education Reconciliation Act, collectively, the ACA) includes a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA), which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a highly similar or “biosimilar” product may not be submitted to the FDA until four years following the date that the reference product was first approved by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first approved. During this 12-year period of exclusivity, the FDA may approve a full BLA for the competing product containing the sponsor’s own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. We believe that any of our vaccine candidates approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our vaccine candidates to be reference products for competing products, potentially creating the opportunity for competition sooner than anticipated.
The commercial success of our vaccine candidates will depend upon the degree of market acceptance of such vaccine candidates by healthcare providers, vaccine recipients, healthcare payors and others in the medical community.

Our vaccine candidates may not be commercially successful. Even if any of our vaccine candidates receive regulatory approval, they may not gain market acceptance among healthcare providers, individuals within our target population, healthcare payors, national immunization technical advisory groups (NITAGs) or the medical community. The commercial success of any of our current or future vaccine candidates will depend significantly on the broad adoption and use of the resulting product by these individuals and organizations for approved indications. The degree of market acceptance of our products will depend on a number of factors, including:

- demonstration of clinical efficacy and safety compared to other more-established products;
- the indications for which our vaccine candidates are approved;
- any anti-vaccine sentiments within our targeted patient population;
- the limitation of our targeted population and other limitations or warnings contained in any FDA-approved labeling;
- acceptance of a competing vaccine for the relevant indication by healthcare providers and their patients;
- acceptance of, and preference for, a therapeutic that treats the condition our vaccine targets, by healthcare providers and their patients;
- the pricing and cost-effectiveness of our products, as well as the cost of treatment with our products in relation to alternative treatments and therapies;
- our ability to obtain and maintain sufficient third-party coverage and adequate reimbursement from government healthcare programs, including Medicare and Medicaid, private health insurers and other third-party payors;
- receiving recommendations from U.S. Center for Disease Control's (CDC) Advisory Committee on Immunization Practices (ACIP), or other foreign NITAGs, for use, as well as placement of our vaccine candidates on national immunization programs, which may impact the likelihood of third-party coverage and extent of healthcare provider acceptance;
- the willingness of vaccine recipients to pay all, or a portion of, out-of-pocket costs associated with our products in the absence of sufficient third-party coverage and adequate reimbursement;
- any restrictions on the use of our products, and the prevalence and severity of any adverse effects;
- potential product liability claims;
- the timing of market introduction of our products as well as competitive drugs;
- the effectiveness of our or any of our current or potential future collaborators’ sales and marketing strategies; and
- unfavorable publicity relating to the product.

In the United States, the ACIP develops vaccine recommendations, and there are similar NITAG agencies in other jurisdictions around the world that develop vaccine recommendations. To develop its recommendations, the ACIP forms working groups that gather, analyze and prepare scientific information. The ACIP also considers many of the factors above, as well as myriad additional factors such as the value of vaccination for the target population regarding the outcomes, health economic data and implementation issues. The ACIP recommendations are also made within categories, such as in an age group or a specified risk group and vaccines that receive a preferred ACIP recommendation are generally widely adopted in the United States. We expect that other developers of RSV vaccine candidates that are in later stages of development will secure a recommendation from the ACIP. The failure of these developers to secure such an ACIP recommendation, or any limitations of any ACIP recommendations secured by these developers, may limit the market opportunity of our vaccine candidates or otherwise require us to seek an ACIP recommendation ourselves, which may cause us to expend additional time and/or resources. If any vaccine candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors or patients, we may not generate sufficient revenue from that product and may not become or remain profitable.
The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. If we are found or alleged to have improperly promoted off-label uses, we may become subject to significant liability. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription products. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product’s approved labeling. If any of our vaccine candidates are approved, and we are found to have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The government has also required companies to enter into consent decrees or imposed permanent injunctions under which specified promotional conduct is changed or curtailed. If we cannot successfully manage the promotion of our vaccine candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

The successful commercialization of our vaccine candidates, if approved, will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and favorable pricing policies. Failure to obtain or maintain coverage and adequate reimbursement for our products could limit our ability to market those products and decrease our ability to generate revenue. The availability of coverage and the adequacy of reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most vaccine recipients to be able to afford prescription medications such as our vaccine candidates, if approved. Our ability to achieve coverage and acceptable levels of reimbursement for our products by third-party payors will have an effect on our ability to successfully commercialize those products. Accordingly, we will need to successfully implement a coverage and reimbursement strategy for any approved vaccine candidate. Even if we obtain coverage for a given product by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that vaccine recipients find unacceptably high. We cannot be sure that coverage and reimbursement in the United States, the European Union or elsewhere will be available for any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

There is significant uncertainty related to third-party payor coverage and reimbursement of newly approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new vaccines will be covered. Some third-party payors may require pre-approval of coverage for new or innovative products before they will reimburse healthcare providers who use such products. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our vaccine candidates. In addition, certain ACA marketplace and other private payor plans are required to include coverage for certain preventative services, including vaccinations recommended by the ACIP and on the CDC's National Immunization Program, without cost share obligations (i.e., co-payments, deductibles or co-insurance) for plan members. Children through 18 years of age without other health insurance coverage may be eligible to receive such vaccinations free-of-charge through the CDC's Vaccines for Children program. For Medicare beneficiaries, vaccines may be covered for reimbursement under either the Part B program or Part D depending on several criteria, including the type of vaccine and the beneficiary's coverage eligibility. If our vaccine candidates, if approved, are reimbursed only under the Part D program, healthcare providers may be less willing to use our products because of the claims adjudication costs and time related to the claims adjudication process and collection of co-payment associated with the Part D program.

Obtaining and maintaining reimbursement status is time consuming, costly and uncertain. The Medicare and Medicaid programs increasingly are used as models for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs. However, no uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases at short notice, and we believe that changes in these rules and regulations are likely.
Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe and other countries has and will continue to put pressure on the pricing and usage of our products. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our products. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our products. We expect to experience pricing pressures in connection with the sale of any of our products due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

We face significant competition, and if our competitors develop technologies or vaccine candidates more rapidly than we do or their technologies are more effective, our business and our ability to develop and successfully commercialize products may be adversely affected.

The biotechnology and biopharmaceutical industries are characterized by rapid advancing technologies, intense competition and a strong emphasis on proprietary and novel products and vaccine candidates. We compete with (i) developers of vaccine candidates using technologies other than VLP technologies that target the same or similar infectious diseases targeted by our vaccine candidates and (ii) other developers of VLP technologies. Our competitors have developed, are developing or may develop products, vaccine candidates and processes competitive with our vaccine candidates. Any vaccine candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. We believe that a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we may attempt to develop vaccine candidates. In particular, there is intense competition in the VLP technology field and the RSV, hMPV and SARS-CoV-2 vaccine fields. Our competitors include larger and better funded pharmaceutical, biopharmaceutical, biotechnological and therapeutics companies. Moreover, we may also compete with universities and other research institutions who may be active in respiratory vaccine research and could be in direct competition with us. We also compete with these organizations to recruit management, scientists and clinical development personnel, which could negatively affect our level of expertise and our ability to execute our business plan. We will also face competition in establishing clinical trial sites, enrolling subjects for clinical trials and in identifying and in-licensing new vaccine candidates. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

A number of companies have initiated trials, announced plans to initiate trials, or completed trials, of non-VLP vaccine candidates targeting RSV, hMPV and SARS-CoV-2. For example, GlaxoSmithKline, Pfizer, Bavarian Nordic, Janssen, Moderna, Codagenix and Meissa are currently developing vaccines against RSV for use in older adults, and Moderna, Pfizer/BioNTech, AstraZeneca and Janssen, along with many other companies, are currently marketing SARS-CoV-2 vaccines. We also compete with companies that have developed VLP technologies targeting SARS-CoV-2 and may target RSV or hMPV in the future. These companies include SpyBiotech, VLP Therapeutics, VBI Vaccines, Medicago and Artes Biotechnology. To the extent these companies develop vaccines or vaccine candidates that provide or have the potential to provide comparable or better efficacy than our vaccine candidates, these efforts could create competition for subject recruitment into our trials and our commercial opportunity.

Many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we do. If we successfully obtain approval for any vaccine candidate, we will face competition based on many different factors, including the safety and effectiveness of our products, the ease with which our products can be administered, the extent to which vaccine recipients accept relatively new vaccines, the
timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, more convenient, less expensive or marketed and sold more effectively than any products we may develop. Competitive products approaches may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our vaccine candidates. We plan to pursue development of a combination RSV and hMPV vaccine candidate, and it takes significant manufacturing and development resources to develop combination candidates. Our competitors may have greater resources than we do, allowing them to advance combination candidates faster than we are able to or allowing them to advance additional combination vaccine candidates incorporating more pathogens in a single candidate. These combination candidates could limit the commercialization potential of our combination candidates. If we are unable to compete effectively, our opportunity to generate revenue from the sale of our products we may develop, if approved, could be adversely affected.

We currently have no marketing and sales organization and have no experience as a company in commercializing products, and we may need to invest significant resources to develop these capabilities. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our products, we may not be able to generate product revenue.

We have no internal sales, marketing or distribution capabilities, nor have we commercialized a product. If any of our vaccine candidates ultimately receives regulatory approval, we must build a marketing and sales organization with technical expertise and supporting distribution capabilities to commercialize each such product in major markets, which will be expensive and time consuming. Alternatively, we may need to collaborate with third parties that have direct sales forces and established distribution systems, in lieu of or to augment our own sales force and distribution systems. We have no prior experience as a company in the marketing, sale and distribution of biopharmaceutical products and there are significant risks involved in building and managing of a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We may not be able to enter into collaborations or hire consultants or external service providers to assist us in sales, marketing and distribution functions on acceptable financial terms, or at all. In addition, our product revenues and our profitability, if any, may be lower if we rely on third parties for these functions than if we were to market, sell and distribute any products that we develop ourselves. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we are not successful in commercializing our products, either on our own or through arrangements with one or more third parties, we may not be able to generate any future product revenue and we would incur significant additional losses.

Our future growth may depend, in part, on our ability to operate in foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future growth may depend, in part, on our ability to develop and commercialize our vaccine candidates in foreign markets. We are not permitted to market or promote any of our vaccine candidates before we receive regulatory approval from applicable regulatory authorities in foreign markets, and we may never receive such regulatory approvals for any of our vaccine candidates. To obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements regarding safety and efficacy and governing, among other things, clinical trials, commercial sales, pricing and distribution of our vaccine candidates. If we obtain regulatory approval of our vaccine candidates and ultimately commercialize our products in foreign markets, we would be subject to additional risks and uncertainties, including:

- different regulatory requirements for approval of drugs in foreign countries;
- reduced protection for intellectual property rights;
- the existence of additional third-party patent rights of potential relevance to our business;
- pricing pressure from vaccine procurement organizations;
- determinations by NITAGs not to include our vaccine products in immunization schedules for our target patient population, older adults;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
economic weakness, including inflation, or political instability in particular foreign economies and markets;

- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;

- compliance with export control and import laws and regulations;

- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;

- foreign reimbursement, pricing and insurance regimes;

- workforce uncertainty in countries where labor unrest is common;

- differing regulatory requirements with respect to manufacturing of vaccine products;

- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and

- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

We received a grant from the Bill & Melinda Gates Foundation, which subjects certain of our vaccine candidates to pricing and other restrictions.

On September 24, 2020, we entered into a grant agreement (the Grant Agreement) with the Bill & Melinda Gates Foundation (BMGF), pursuant to which BMGF awarded us a grant (the Grant) to help fund our development of a SARS-CoV-2 vaccine. We are using the Grant to develop IVX-411. The Grant Agreement, along with the Global Access and Price Commitment Agreement (the GACA), which we entered into with BMGF on February 17, 2021, subjects our SARS-CoV-2 vaccine candidates, including IVX-411, to certain pricing requirements in certain geographies, global access requirements and reporting and other covenants to ensure that such vaccine candidates are made available by us worldwide and on a nondiscriminatory basis. Such covenants may limit the prices we can charge for such vaccine candidates in low and middle income countries, and include a license to use certain of our proprietary technology related to such vaccine candidates for use in low and middle income countries if we do not comply with the Grant Agreement or GACA. Such price limitations or license, if invoked, could limit the prices we charge, or in some cases, restrict our control over the manufacturing and distribution of certain of our vaccine candidates targeting SARS-CoV-2, which could harm our ability to initiate or continue clinical trials of such vaccine candidates, adversely affect the development or commercialization of such vaccine candidates, or otherwise negatively impact our market position.

Risks Related to Our Business Operations and Industry

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing and cost of, and level of investment in, research, development, regulatory approval and commercialization activities relating to our vaccine candidates, which may change from time to time;

- coverage and reimbursement policies with respect to our vaccine candidates, if approved, and potential future drugs that compete with our products;

- the cost of manufacturing our vaccine candidates, which may vary depending on the quantity of production and the terms of our agreements with third-party manufacturers;

- expenditures that we may incur to acquire, develop or commercialize additional vaccine candidates and technologies;

- the level of demand for any approved products, which may vary significantly;

- future accounting pronouncements or changes in our accounting policies; and

- the timing and success or failure of preclinical studies or clinical trials for our vaccine candidates or competing vaccine candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners.
The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

**We are dependent on the services of our management and other clinical and scientific personnel, and if we are not able to retain these individuals or recruit additional management or clinical and scientific personnel, our business will suffer.**

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. We are highly dependent upon our senior management, as well as our senior scientists and other members of our management team. The loss of services of any of these individuals could delay or prevent the successful development of our product pipeline, initiation or completion of our preclinical studies and clinical trials or the commercialization of our vaccine candidates. Although we have executed employment agreements or offer letters with each member of our senior management team, these agreements are terminable at will with or without notice and, therefore, we may not be able to retain their services as expected. We do not currently maintain “key person” life insurance on the lives of our executives or any of our employees. This lack of insurance means that we may not have adequate compensation for the loss of the services of these individuals.

We will need to expand and effectively manage our managerial, operational, financial and other resources in order to successfully pursue our clinical development and commercialization efforts. We may not be successful in maintaining our unique company culture and continuing to attract or retain qualified management and scientific and clinical personnel in the future due to the intense competition for qualified personnel among biopharmaceutical, biotechnology and other businesses, particularly in the Seattle area. Our industry has experienced a high rate of turnover of management personnel in recent years. If we are not able to attract, integrate, retain and motivate necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

We may encounter difficulties in managing our growth and expanding our operations successfully.

We had 18 full-time employees as of April 30, 2021. As we continue development and pursue the potential commercialization of our vaccine candidates, as well as function as a public company, we will need to expand our financial, development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. In addition, we may need to expand our facilities, including laboratory operations, and may be unable to do so on commercially reasonable terms, or at all. Our future financial performance and our ability to develop and commercialize our vaccine candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively.

**We are subject to various U.S. federal, state and foreign healthcare laws and regulations, which could increase compliance costs, and our failure to comply with these laws and regulations could harm our results of operations and financial condition.**

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers expose us to broadly applicable foreign, federal and state fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute any products for which we obtain marketing approval. Such laws include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or providing any remuneration (including any kickback, bribe or certain rebates), directly or indirectly, overtly or covertly, in cash or in kind, in return for, either the referral
of an individual or the purchase, lease, or order, or arranging for or recommending the purchase, lease, or order of any good, facility, item or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it in order to have committed a violation;

- the federal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making or causing to be made a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act;

- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report annually to the Centers for Medicare & Medicaid Services (CMS), information related to payments and other “transfers of value” made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by such healthcare professionals and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding payments and transfers of value provided, as well as ownership and investment interests held, during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, anesthesiology assistants and certified nurse-midwives; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require biotechnology companies to comply with the biotechnology industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; some state laws that require biotechnology companies to report information on the pricing of certain drug products; and some state and local laws require the registration or pharmaceutical sales representatives.

Efforts to ensure that our current and future business arrangements with third parties will comply with applicable healthcare and privacy laws and regulations will involve ongoing substantial costs. It is possible that governmental authorities will conclude that our business practices, including consulting agreements with certain physicians who are paid in the form of stock or stock options as compensation for services provided to us, may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government funded healthcare programs, such as Medicare and Medicaid, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings and the curtailment or restructuring of our operations. Defending against any such actions can be costly, time-consuming and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. Further, if any of the physicians or other healthcare providers or
entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to significant criminal, civil or administrative sanctions, including exclusions from government funded healthcare program. 

Recently enacted legislation, future legislation and healthcare reform measures may increase the difficulty and cost for us to obtain marketing approval for and commercialize our vaccine candidates and may affect the prices we may set. 

In the United States and some foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system, including cost-containment measures that may reduce or limit coverage and reimbursement for newly approved drugs and affect our ability to profitably sell any vaccine candidates for which we obtain marketing approval. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare.

For example, in March 2010, the ACA was enacted in the United States. Among the provisions of the ACA of importance to our potential vaccine candidates, the ACA: established an annual, non-deductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; extended manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations; expanded eligibility criteria for Medicaid programs; expanded the entities eligible for discounts under the Public Health program; increases the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program; created a new Medicare Part D coverage gap discount program; established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending.

Since its enactment, there have been executive, judicial and Congressional challenges to certain aspects of the ACA. The U.S. Supreme Court is currently reviewing the constitutionality of the ACA in its entirety. Although the U.S. Supreme Court has not yet ruled, President Biden issued an executive order to initiate a special enrollment period from February 15, 2021 through August 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The executive order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how the Supreme Court ruling, other such litigation, and the healthcare reform measures of the Biden administration, future decisions, subsequent appeals, and other efforts to repeal and replace the ACA will impact the ACA or our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, resulted in reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through December 31, 2021, unless additional Congressional action is taken. In addition, on January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Further, there has been heightened governmental scrutiny in the United States of pharmaceutical pricing practices in light of the rising cost of prescription drugs. Such scrutiny has resulted in several recent congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient assistance programs, and reform government program reimbursement methodologies for products. At the federal level, the former Trump administration used several means to propose or implement drug pricing reform, including through federal budget proposals, executive orders and policy initiatives. It is unclear whether the Biden administration will work to reverse these measures or pursue similar policy initiatives. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.
At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Legally mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our vaccine candidates, if approved, or put pressure on our product pricing, which could negatively affect our business, results of operations, financial condition and prospects.

We expect that the ACA, these new laws and other healthcare reform measures that may be adopted in the future may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our vaccine candidates, if approved.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our products.

We face an inherent risk of product liability as a result of the clinical trials of our vaccine candidates and will face an even greater risk if we commercialize our vaccine candidates. For example, we may be sued if our vaccine candidates allegedly cause injury or are found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the vaccine candidate, negligence, strict liability and a breach of warranties. Claims may be brought against us by clinical trial participants, vaccine recipients or others using, administering or selling products that may be approved in the future. Claims could also be asserted under state consumer protection acts.

If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or cease the commercialization of our products. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- a diversion of our management's time and our resources;
- substantial monetary awards to trial participants or vaccine recipients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- significant negative financial impact;
- the inability to commercialize our vaccine candidates; and
- a decline in our stock price.

We currently hold $15 million of clinical trial liability insurance coverage. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our vaccine candidates. Insurance coverage is increasingly expensive. Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of our vaccine candidates. Although we will maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies will also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts
Our insurance policies are expensive and only protect us from some business risks, which will leave us exposed to significant uninsured liabilities. We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include property, general liability, employment benefits liability, business automobile, workers’ compensation, products liability, malicious invasion of our electronic systems, and clinical trials, and directors’ and officers’ employment practices and fiduciary liability insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

We and any of our potential future collaborators will be required to report to regulatory authorities if any of our approved products cause or contribute to adverse medical events, and any failure to do so would result in sanctions that would materially harm our business. If we or any of our potential future collaborators are successful in commercializing our products, the FDA and foreign regulatory authorities would require that we and such collaborators report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of our obligation to report would be triggered by the date we become aware of the adverse event as well as the nature of the event. We and any of our potential future collaborators or CROs may fail to report adverse events within the prescribed timeframe. If we or any of our current or potential future collaborators or CROs fail to comply with such reporting obligations, the FDA or a foreign regulatory authority could take action, including criminal prosecution, the imposition of civil monetary penalties, seizure of our products or delay in approval or clearance of future products.

We and our service providers may be subject to a variety of privacy and data security laws and contractual obligations, which could increase compliance costs and actual or perceived failure to comply with them could subject us to potentially significant fines or penalties and otherwise harm our business. Our internal computer systems, or those of any of our service providers, may fail or suffer security breaches, which could result in a material disruption of our product development programs. We and our service providers maintain and will maintain a large quantity of sensitive information, including confidential business and patient health information in connection with our preclinical studies and planned clinical trials, and are subject to laws and regulations governing the privacy and security of such information. The global data protection landscape is rapidly evolving, and we may be affected by or subject to new, amended or existing laws and regulations in the future, including as our operations continue to expand or if we operate in foreign jurisdictions. These laws and regulations may be subject to different interpretations, which adds to the complexity of processing personal data. Guidance on implementation and compliance practices are often updated or otherwise revised. This may create uncertainty in our business, affect our ability to operate in certain jurisdictions or to collect, store, transfer use and share personal information, necessitate the acceptance of more onerous obligations in our contracts, result in liability or impose additional costs on us. The cost of compliance with these laws, regulations and standards is high and is likely to increase in the future. Any failure or perceived failure by us to comply with federal, state or foreign laws or regulation, our internal policies and procedures or our contracts governing our processing of personal information could result in negative publicity, government investigations and enforcement actions, claims by third parties and damage to our reputation, any of which could have a material adverse effect on our operations, financial performance and business.

As our operations and business grow, we may become subject to or affected by new or additional data protection laws and regulations and face increased scrutiny or attention from regulatory authorities. In the United States, numerous federal and state laws and regulations, including health information privacy laws, data breach notification laws and consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act), that govern the collection, use, disclosure and protection of health-related and other personal information could apply to our operations or the operations of our collaborators and third-party providers. In addition, we may obtain health information from third parties (including research institutions from which we obtain clinical trial data) that are subject to privacy and security requirements under HIPAA. Depending on the facts and circumstances, we could be subject to significant penalties if we violate HIPAA.
In addition, certain state laws govern the privacy and security of health and other information in certain circumstances. These laws are evolving rapidly and may differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts. By way of example, the California Consumer Privacy Act (CCPA), which went into effect on January 1, 2020, gives California residents individual privacy rights to access and delete their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability and many similar laws have been proposed at the federal level and in other states. Further, the California Privacy Rights Act (CPRA) recently passed in California. The CPRA will impose additional data protection obligations on covered businesses, including additional consumer rights processes, limitations on data uses, new audit requirements for higher risk data, and opt outs for certain uses of sensitive data. It will also create a new California data protection agency authorized to issue substantive regulations and could result in increased privacy and information security enforcement. The majority of the provisions will go into effect on January 1, 2023, and additional compliance investment and potential business process changes may be required. Other states are exploring their own laws, which may or may not be similar to CCPA or the CPRA. In the event that we are subject to or affected by HIPAA, the CCPA, the CPRA or other domestic privacy and data protection laws, any liability from failure to comply with the requirements of these laws could adversely affect our financial condition.

There also are a wide variety of privacy laws in other countries that may impact our operations, now or in the future. For example, in Europe, the General Data Protection Regulation (GDPR) imposes stringent requirements regarding the collection, use, disclosure, transfer or other processing of personal data of individuals within the European Economic Area (EEA). Companies that must comply with the GDPR face increased compliance obligations and risk, including more robust regulatory enforcement of data protection requirements and potential fines for noncompliance of up to €20 million or 4% of the annual global revenues of the noncompliant company, whichever is greater. The GDPR also confers a private right of action in some circumstances on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the GDPR. Among other things, the GDPR requires the establishment of a lawful basis for the processing of data, imposes requirements relating to the consent of the individuals to whom the personal data relates, including detailed notices for clinical trial subjects and investigators, as well as requirements regarding the security of personal data and notification of data processing obligations to the competent national data processing authorities. In addition, the GDPR increases the scrutiny of transfers of personal data from clinical trial sites located in the EEA to the United States and other jurisdictions that the European Commission does not recognize as having “adequate” data protection laws. Recent legal developments in Europe have created complexity and uncertainty regarding transfers of personal data from the EEA to the United States. For example, on July 16, 2020, the Court of Justice of the European Union (CJEU) invalidated the EU-US Privacy Shield Framework (Privacy Shield) under which personal data could be transferred from the EEA to United States entities that had self-certified under the Privacy Shield scheme. While the CJEU upheld the adequacy of the standard contractual clauses (a standard form of contract approved by the European Commission as an adequate personal data transfer mechanism, and potential alternative to the Privacy Shield), it made clear that reliance on them alone may not necessarily be sufficient in all circumstances. Use of the standard contractual clauses must now be assessed on a case-by-case basis taking into account the legal regime applicable in the destination country, in particular applicable surveillance laws and rights of individuals and additional measures and/or contractual provisions may need to be put in place, however, the nature of these additional measures is currently uncertain.

Further, following the withdrawal of the United Kingdom from the European Union and the EEA and the end of the transition period, from January 1, 2021, we will have to comply with the GDPR and separately the GDPR as implemented in the United Kingdom, which, together with the amended UK Data Protection Act 2018, retains the GDPR in UK national law. The UK GDPR mirrors the fines under the GDPR and has the ability to fine up to the greater of €20 million/£17 million or 4% of global turnover. The relationship between the United Kingdom and the European Union and the EEA in relation to certain aspects of data protection law remains unclear, and it is unclear how United Kingdom data protection laws and regulations will develop in the medium to longer term, and how data transfers to and from the United Kingdom will be regulated in the long term. These changes will lead to additional costs and increase our overall risk exposure. Currently there is a four to six-month grace period agreed in the European Union and United Kingdom Trade and Cooperation Agreement, ending June 30, 2021 at the latest, whilst
the parties discuss an adequacy decision. The European Commission published a draft adequacy decision on February 19, 2021. If adopted, the decision will enable data transfers from European Union member states to the United Kingdom for a four-year period, subject to subsequent extensions.

In many jurisdictions, enforcement actions and consequences for noncompliance are rising. In the United States, these include enforcement actions in response to rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies. If we fail to follow these security standards, even if no personal information is compromised, we may incur significant fines or experience a significant increase in costs. Many state legislatures have adopted legislation that regulates how businesses operate online, including measures relating to privacy, data security and data breaches. Laws in all U.S. states require businesses to provide notice to customers whose personally identifiable information has been disclosed as a result of a data breach. The laws are not consistent, and compliance in the event of a widespread data breach is costly.

Compliance with U.S. and international data protection laws and regulations could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, update our data privacy and security policies and procedures, or in some cases, impact our ability to operate in certain jurisdictions. Failure by us or our collaborators and service providers to comply with U.S. and international data protection laws and regulations could result in government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business. Moreover, clinical trial subjects about whom we or our potential collaborators obtain information, as well as the providers who share this information with us, may contractually limit our ability to use and disclose the information. Claims that we have violated individuals’ privacy rights, failed to comply with data protection laws, or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend, could result in adverse publicity and adversely affect our business, financial condition, results of operations and prospects. Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, attacks upon information technology systems are increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives and expertise. These attacks can present meaningful risks to our operations, data and commercial information. As a result of the COVID-19 pandemic, we may also face increased cybersecurity risks due to our reliance on internet technology and the number of our employees who are working remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. Furthermore, because the techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. We may also experience security breaches that may remain undetected for an extended period. Any security breach or other incident, whether actual or perceived, could impact our reputation and/or operations, cause us to incur significant costs, including legal expenses, harm customer confidence, hurt our expansion into new markets, cause us to incur remediation costs, or cause us to lose existing customers. For example, the loss of clinical trial data from clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. We also rely on third parties to manufacture our vaccine candidates, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any actual or perceived disruption or security breach affects our systems (or those of our third-party collaborators, service providers, contractors or consultants) or were to result in a loss of or accidental, unlawful or unauthorized access to, use of, release of, or other processing of personally identifiable information, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, the further development and commercialization of our vaccine candidates could be delayed, and we could be subject to significant fines, penalties or liabilities for any noncompliance to certain privacy and security laws.

Further, despite the implementation of security measures, our internal technology systems (including infrastructure) and those of our current and any future CROs and other contractors, consultants and collaborators are vulnerable to damage from computer viruses, cybersecurity threats (such as denial-of-service attacks, cyber-attacks or cyber-intrusions over the Internet, hacking, phishing and other social engineering attacks), unauthorized access or use, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and

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cause interruptions in our operations or result in the unauthorized disclosure of or access to personally identifiable information or individually identifiable health information, it could result in a material disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other similar disruptions. We have also outsourced elements of our information technology infrastructure, and as a result a number of third-party vendors may or could have access to our confidential information. If our third-party vendors fail to protect their information technology systems and our confidential and proprietary information, we may be vulnerable to disruptions in service and unauthorized access to our confidential or proprietary information and we could incur liability and reputational damage. Some of the federal, state and foreign government requirements include obligations of companies to notify individuals of security breaches involving particular categories of personally identifiable information, which could result from breaches experienced by us or by our vendors, contractors, or organizations with which we have formed strategic relationships.

**Our business is subject to risks arising from the COVID-19 pandemic and other epidemic diseases.**

The current COVID-19 worldwide pandemic has presented substantial public health and economic challenges and is affecting our employees, clinical trial subjects, physicians and other healthcare providers, communities and business operations, as well as the U.S. and global economies and financial markets. International and U.S. governmental authorities in impacted regions have taken, and are continuing to take, actions in an effort to slow the spread of COVID-19, including issuing varying forms of “stay-at-home” orders, and restricting business functions outside of one’s home. In response, our administrative employees have worked remotely and we have limited the number of staff in our research and development laboratories. To date we have not experienced material disruptions in our business operations. However, while it is not possible at this time to estimate the impact that COVID-19 could have on our business in the future, particularly as we advance our vaccine candidates through clinical development, the continued spread of COVID-19 and the measures taken by the governmental authorities, and any future epidemic disease outbreaks, could disrupt the supply chain and the manufacture or shipment of drug substances and finished drug products for our vaccine candidates for use in our research, preclinical studies and clinical trials, delay, limit or prevent our employees and CROs from continuing research and development activities, impede our clinical trial initiation and recruitment and the ability of subjects to continue in clinical trials, impede testing, monitoring, data collection and analysis and other related activities, any of which could delay our preclinical studies and clinical trials and increase our development costs, and have a material adverse effect on our business, financial condition and results of operations. The COVID-19 pandemic and any future epidemic disease outbreak could also potentially further affect the business of the FDA or other regulatory authorities, which could result in delays in meetings related to planned clinical trials. The COVID-19 pandemic and mitigation measures have had and may continue to have, and any future epidemic disease outbreak may have, an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairing our ability to raise capital when needed. The extent to which the COVID-19 pandemic impacts our results will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact.

**Our business could be affected by litigation, government investigations and enforcement actions.**

We currently operate in a number of jurisdictions in a highly regulated industry and we could be subject to litigation, government investigation and enforcement actions on a variety of matters in the United States. or foreign jurisdictions, including, without limitation, intellectual property, regulatory, product liability, environmental, whistleblower, false claims, privacy, anti-kickback, anti-bribery, securities, commercial, employment and other claims and legal proceedings which may arise from conducting our business. Any determination that our operations or activities are not in compliance with existing laws or regulations could result in the imposition of fines, civil and criminal penalties, equitable remedies, including disgorgement, injunctive relief and/or other sanctions against us, and remediation of any such findings could have an adverse effect on our business operations. Legal proceedings, government investigations and enforcement actions can be expensive and time consuming. An adverse outcome resulting from any such proceeding, investigations or enforcement actions could result in significant damages awards, fines, penalties, exclusion from the federal healthcare programs, healthcare debarment, injunctive relief, product recalls, reputational damage and modifications of our business practices, which could have a material adverse effect on our business and results of operations.
Our employees and independent contractors, including principal investigators, CROs, consultants and vendors, may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees and independent contractors, including principal investigators, CROs, consultants and vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate: (i) the laws and regulations of the FDA and other similar regulatory requirements, including those laws that require the reporting of true, complete and accurate information to such authorities, (ii) manufacturing standards, including cGMP requirements, (iii) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and abroad or (iv) laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of intellectual property, products or technologies. Additional potential transactions that we may consider in the future include a variety of business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any future transactions could increase our near and long-term expenditures, result in potentially dilutive issuances of our equity securities, including our common stock, or the incurrence of debt, contingent liabilities, amortization expenses or acquired in-process research and development expenses, any of which could affect our financial condition, liquidity and results of operations. Future acquisitions may also require us to obtain additional financing, which may not be available on favorable terms or at all. These transactions may never be successful and may require significant time and attention of our management. In addition, the integration of any business that we may acquire in the future may disrupt our existing business and may be a complex, risky and costly endeavor for which we may never realize the full benefits of the acquisition. Accordingly, although there can be no assurance that we will undertake or successfully complete any additional transactions of the nature described above, any additional transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent protection for our vaccine candidates, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our vaccine candidates may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our therapeutic programs and other proprietary technologies we may develop. We seek to protect our proprietary position, in part, by exclusively licensing and filing company-owned patent applications in the United States and abroad relating to our vaccine candidates, VLP technology, manufacturing processes, and methods of use. If we or our principal licensor, UW, are unable to obtain or maintain patent protection, our business, financial condition, results of operations and prospects could be materially harmed.
Changes in either the patent laws or their interpretation in the United States and other jurisdictions may diminish our ability to protect our intellectual property, obtain, maintain and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our protection. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection against competitors or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and we or our licensors may not be able to file, prosecute or maintain all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, third party collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in any of our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. For example, many of the patent applications related to discoveries in the SARS-CoV-2 field have not yet published and could impact our freedom to operate using our technology in the SARS-CoV-2 space. This may result in us needing to obtain additional licenses, which could have a financial impact, or ceasing development of our candidates if not able to obtain additional necessary licenses.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our patent applications may not result in patents being issued which protect our vaccine candidates or proprietary technologies we may develop or which effectively prevent others from commercializing competitive technologies and products.

Moreover, the claim coverage in a patent application can be significantly reduced before the patent is granted. Even if our patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us or otherwise provide us with any competitive advantage. Any patents issuing from our patent applications may be challenged, narrowed, circumvented or invalidated by third parties. Our competitors or other third parties may avail themselves of safe harbors under the Drug Price Competition and Patent Term Restoration Act of 1984 (Hatch-Waxman Amendments) to conduct research and clinical trials. Consequently, we do not know whether our therapeutic programs and other proprietary technology will be protectable or remain protected by valid and enforceable patents. Even if a patent is granted, our competitors or other third parties may be able to circumvent the patent by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, financial condition, results of operations and prospects. In addition, given the amount of time required for the development, testing and regulatory review of our therapeutic programs and eventual vaccine candidates, patents protecting the vaccine candidates might expire before or shortly after such vaccine candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability and our patents may be challenged in the courts or patent offices in the United States and abroad. We may be subject to a third-party pre-issuance submission of prior art to the United States Patent and Trademark Office (USPTO) or become involved in opposition, derivation, revocation, reexamination, post-grant review, inter partes review, or other similar proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our patent rights, allow third parties to commercialize our therapeutic programs and other proprietary technologies we may develop and compete directly.
with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

Moreover, some of our owned and in-licensed patent rights may in the future be, co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patent rights, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of such patent rights in order to enforce such patent rights against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

We rely heavily on certain license agreements with UW and also depend on intellectual property licensed from other third parties, and these licensors may not always act in our best interest. If we fail to comply with our obligations under our intellectual property licenses, if the licenses are terminated, or if disputes regarding these licenses arise, we could lose significant rights that are important to our business.

We are dependent, in part, on patents, know-how and proprietary technology licensed from others. We are a party to a number of license agreements under which we are granted rights to intellectual property that are important to our business and we may enter into additional license agreements in the future. Our existing license agreements impose, and we expect that any future license agreements where we in-license intellectual property will impose on us, various development, regulatory and/or commercial diligence obligations, payment of milestones and/or royalties and other obligations. Specifically, we are party to various option and license agreements with UW including (i) an exclusive, worldwide, royalty-bearing, sublicensable license under certain UW patents to make, use, sell, offer to sell, import and otherwise exploit any product covered by the licensed patents or products for the prophylactic and/or therapeutic treatment of RSV, hMPV and four other infectious diseases, (ii) a non-exclusive, worldwide (excluding South Korea), sublicensable license under certain UW patents to make, use, sell, offer to sell, import or otherwise exploit any product covered under the licensed patents for the prophylactic and/or therapeutic treatments of SARS-CoV-2 infection with an option for an exclusive license in certain jurisdictions, and (iii) certain non-exclusive licenses to use certain know-how related to the foregoing. These licenses and, if exercised, options impose various diligence, milestone payment, royalty, and other obligations on us, and any future license agreements we enter into may do the same. In addition, we rely on in-licensing antigens from third parties other than UW to combine with our VLP platform. If we fail to comply with our obligations under these agreements, or we are subject to bankruptcy-related proceedings, the licensor may have the right to terminate the license, in which event we would not be able to develop or market the products covered by the license. In addition, we may need to obtain additional licenses from our existing licensors and others to advance our research or allow commercialization of vaccine candidates we may develop. It is possible that we may be unable to obtain any additional licenses at a reasonable cost or on reasonable terms, if at all. In either event, we may be required to expend significant time and resources to redesign our technology, vaccine candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected technology or vaccine candidates.

If we or our licensors fail to adequately protect our licensed intellectual property, our ability to commercialize vaccine candidates could suffer. We do not have complete control over the maintenance, prosecution and litigation of our in-licensed patents and patent applications and may have limited control over future intellectual property that may be in-licensed. For example, we cannot be certain that activities such as the maintenance and prosecution by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. It is possible that our licensors’ infringement proceedings or defense activities may be less vigorous than had we conducted them ourselves, or may not be conducted in accordance with our best interests. Furthermore, there may be certain limitations to our right to enforce certain exclusively licensed patents, including, for example, the requirement that we obtain the licensor’s consent prior to settling such lawsuits in a manner that would adversely affect the licensor’s rights, and a general prohibition on enforcement against non-profit entities.
In addition, the agreements under which we license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant patents, know-how and proprietary technology, or increase what we believe to be our financial or other obligations under the relevant agreement. Disputes that may arise between us and our licensors regarding intellectual property subject to a license agreement could include disputes regarding:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our vaccine candidates and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected technology or vaccine candidates. As a result, any termination of or disputes over our intellectual property licenses could result in the loss of our ability to develop and commercialize our vaccine candidates, or we could lose other significant rights, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Furthermore, our licensed patent rights are or may be subject to retained or reserved rights by the licensor or one or more third parties. For example, UW retained rights to conduct academic research for itself and other rights necessary for UW to comply with its obligations to BMGF, which funded in part the research resulting in certain of our licensed patent rights and technology under the UW agreements. With respect to our SARS-CoV-2 vaccine candidate, we granted BMGF a humanitarian license that allows BMGF to make our SARS-CoV-2 vaccine available to certain developing countries. Further, because our licensed patent rights allow the licensor to continue their research on the licensed technology, a licensor may develop new inventions that we may want to license in the future. Any such licenses provided to us will increase our costs. Alternatively, if a licensor does not provide us with a license, we may be limited in our ability to develop competitive vaccine candidates in the future. For additional information on our material license agreements, see “Business–Material Agreements.”

Intellectual property discovered through government funded programs may be subject to federal regulations such as “march-in” rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights and limit our ability to contract with non-U.S. manufacturers.

We have in-licensed certain patents and patent applications that were generated through the use of U.S. government funding or grants, and we may acquire or license in the future intellectual property rights that have been generated through the use of U.S. government funding or grants. Pursuant to the Bayh-Dole Act of 1980, the U.S. government has certain rights in inventions developed with government funding. These U.S. government rights include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right, under certain limited circumstances, to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third-party if it determines that: (1) adequate steps have not been taken to commercialize the invention; (2) government action is necessary to meet public health or safety needs; or (3) government action is necessary to meet requirements for public use under federal regulations (also referred to as “march-in rights”). If the U.S. government exercises its march-in rights in our current or future intellectual property rights that are generated through the use of U.S. government funding or grants, we could be forced to license or sublicense intellectual property developed by us or that we license on terms unfavorable to us, and there can be no assurance that we would receive compensation from the U.S. government for the exercise of such rights. The U.S. government also has the right to take title to these inventions if the grant recipient fails to disclose the invention to the government or fails to file an application to register the intellectual property within specified time limits. Intellectual property generated under a government funded program is also...
subject to certain reporting requirements, compliance with which may require us or the applicable licensor to expend substantial resources. In addition, the U.S. government requires that any products embodying any of these inventions or produced through the use of any of these inventions be manufactured substantially in the United States. This preference for U.S. industry may be waived by the federal agency that provided the funding if the owner or assignee of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. industry may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property. Any failure by us to comply with federal regulations regarding intellectual property rights that were developed through the use of U.S. government funding could have a material adverse effect on our business, financial condition, results of operations, and prospects.

For example, because the research resulting in certain of our licensed patent rights and technology under the UW agreements and the agreement with the National Institutes of Health was funded in whole or in part by the U.S. government, the U.S. government has certain rights to such patent rights and technology, including a non-exclusive license authorizing the government to use the invention for non-commercial purposes and march-in rights, and impose certain reporting and domestic manufacturing requirements. These rights may permit the U.S. government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions are and may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the government of such rights could harm our competitive position, business, financial condition, results of operations and prospects.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on our vaccine candidates and/or VLP technology in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our intellectual property and into the United States or other jurisdictions. Competitors may use our intellectual property in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. In addition, some jurisdictions, such as Europe, Japan and China, may have a higher standard for patentability than in the United States, including, for example, the requirement of claims having literal support in the original patent filing and the limitation on using supporting data that is not in the original patent filing. Under those heightened patentability requirements, we may not be able to obtain sufficient patent protection in certain jurisdictions even though the same or similar patent protection can be secured in the United States and other jurisdictions.

Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop.
Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Certain provisions of the Agreement on Trade-Related Aspects of Intellectual Property (TRIPS Agreement) limit the use of compulsory licenses by World Trade Organization (WTO) members. Several WTO members and various public interest advocates have proposed the WTO implement a waiver of such provision of the TRIPS Agreement so that members may improve the supply of COVID-19 vaccines without fear of trade retaliation. In May 2021, the United States Trade Representative announced that the Biden Administration “will actively participate in text-based negotiations at the World Trade Organization (WTO) needed to make that happen. Those negotiations will take time given the consensus-based nature of the institution and the complexity of the issues involved.” A waiver is unlikely to impact patent protection in the jurisdictions where we anticipate having the majority of our sales. Rather, with respect to our SARS-CoV-2 vaccine candidates, BMGF has retained or been granted rights in the jurisdictions where patent protection would be impacted. Nevertheless, the outcome of these negotiations is highly uncertain, and if the WTO agrees to waive provisions of the TRIPS Agreement relevant to our SARS-CoV-2 vaccine candidates, our business, financial condition, results of operations and prospects may be adversely affected.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our owned or licensed patents and applications. In certain circumstances, we rely on our licensors to pay these fees due to U.S. and non-U.S. patent agencies. The USPTO and various non-U.S. patent agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. We are also dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations, and prospects. The COVID-19 pandemic may impair our and our licensors’ ability to comply with these procedural, document submission, fee payment, and other requirements imposed by government patent agencies, which may materially and adversely affect our ability to obtain or maintain patent protection for our products and vaccine candidates.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act (the America Invents Act) enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we were the first to either (i) file any patent application.
related to our therapeutic programs and other proprietary technologies we may develop or (ii) invent any of the inventions claimed in our patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of patents issuing from those patent applications, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

Issued patents covering our vaccine candidates and VLP technology could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad.

If we initiated legal proceedings against a third party to enforce a patent covering our vaccine candidates or VLP technology, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may raise claims challenging the validity or enforceability of a patent before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, inter partes review, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation or amendment to our patents in such a way that they no longer cover our vaccine candidates or VLP technology. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our licensing partners and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our vaccine candidates. Such a loss of patent protection would have a material adverse impact on our business, financial condition, results of operations and prospects.

Patent terms may be inadequate to protect the competitive position of our vaccine candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional or international patent application filing date. Various extensions may be available, including by patent term adjustment (PTA) due to delays at the USPTO. Conversely, patent terms may be reduced by a terminal disclaimer that is necessary to overcome a double patenting rejection during patent prosecution. Such a terminal disclaimer could obviate any extension or adjustment that may be available. Irrespective of whether extensions are available, the life of a patent, and the protection it affords, is limited. Even if patents covering our vaccine candidates are obtained, once the patent has expired, we may be vulnerable to competition from competitive products, including generics or biosimilars. Given the amount of time
required for the development, testing and regulatory review of new vaccine candidates, patents protecting such vaccine candidates might expire before or shortly after such vaccine candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

**If we do not obtain patent term extension for our vaccine candidates, our business may be materially harmed.**

Depending upon the timing, duration and specifics of any FDA marketing approval of any vaccine candidate we have or may develop, one or more of our patents issuing from our U.S. patent applications may be eligible for limited patent term extension under the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended, and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. Similar patent term restoration provisions to compensate for commercialization delay caused by regulatory review are also available in certain foreign jurisdictions, such as in Europe under Supplemental Protection Certificate. However, we may not be granted an extension for various reasons, including failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or failing to satisfy other applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patent rights, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our vaccine candidates and other proprietary technologies we may develop. Litigation may be necessary to defend against these and other claims challenging inventorship or our patent rights, trade secrets or other intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our vaccine candidates and other proprietary technologies we may develop. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patent protection for our vaccine candidates and proprietary technologies, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology, and other proprietary information and to maintain our competitive position. We seek to protect these trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, third-party collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.
We may be subject to claims that third parties have an ownership interest in our trade secrets. For example, we may have disputes arise from conflicting obligations of our employees, consultants or others who are involved in developing our vaccine candidate. Litigation may be necessary to defend against these and other claims challenging ownership of our trade secrets. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable trade secret rights, such as exclusive ownership of, or right to use, trade secrets that are important to our therapeutic programs and other proprietary technologies we may develop. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our products and vaccine candidates.

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending patent application in the United States and abroad that is relevant to or necessary for the commercialization of our current and future products and vaccine candidates in any jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent’s prosecution history. Our interpretation of the relevance or the scope of a patent or a pending patent application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products or vaccine candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending patent application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, and our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products. Further, we may need to share our proprietary information, including trade secrets, with our current and future business partners, collaborators, contractors and others located in countries at heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.

Some of our employees, consultants and advisors are currently or were previously employed at universities, including UW, or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations and prospects.
Third-party claims of intellectual property infringement, misappropriation or other violations against us or our potential future collaborators could be expensive and time consuming and may prevent or delay the development and commercialization of our vaccine candidates and other proprietary technologies.

Our commercial success depends in part on our ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including inter partes review and post-grant review have also been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are commercializing or plan to commercialize our vaccine candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, and as we gain greater visibility and market exposure as a public company, the risk increases that our vaccine candidates, proprietary technologies and commercializing activities may give rise to claims of infringement of the patent rights of others. We cannot assure you that our vaccine candidates or proprietary technologies will not infringe existing or future patents owned by third parties. We may not be aware of patents that have already been issued for which a third party, such as a competitor in the fields in which we are developing our vaccine candidates, might accuse us of infringing. It is also possible that patents owned by third parties of which we are aware, but which we do not believe we infringe or that we believe we have valid defenses to any claims of patent infringement, could be found to be infringed by us. It is not unusual that corresponding patents issued in different countries have different scopes of coverage, such that in one country a third-party patent does not pose a material risk, but in another country, the corresponding third-party patent may pose a material risk to our vaccine candidates. As such, we monitor third-party patents in the relevant pharmaceutical markets. In addition, because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that we may infringe.

Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing the infringing products or technologies. In addition, we may be required to pay substantial damages, including treble damages and attorneys’ fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign our infringing products or technologies, which may be impossible or require substantial time and monetary expenditure. Further, we cannot predict whether any required license would be available at all or whether it would be available on commercially reasonable terms. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product or be forced to cease some aspect of our business operations as a result of actual or threatened patent infringement claims.

Even if resolved in our favor, the foregoing proceedings could be very expensive, particularly for a company of our size, and time-consuming. Such proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such proceedings adequately. Further, some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because of greater financial resources. Patent litigation and other proceedings may also absorb significant management time. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could impair our ability to compete in the marketplace. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition or results of operations.
If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our registered or unregistered trademarks or trade names may be opposed, challenged, infringed, circumvented, invalidated, cancelled, or declared generic or determined to be infringing on other marks. During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we are given an opportunity to respond to such rejections, we may be unable to overcome them. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, which may not survive such proceedings. Moreover, any name we may propose to use with our vaccine candidate in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. Similar requirements exist in Europe. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA or an equivalent administrative body in a foreign jurisdiction objects to any of our trademarks, which may not survive such proceedings. Furthermore, in many countries, owning and maintaining a trademark registration may not provide an adequate defense against a subsequent infringement claim asserted by the owner of a senior trademark.

We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or brand names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, domain names or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our vaccine candidates or utilize similar technology but that are not covered by the claims of the patents that we license or own;
- we might not have been the first to make the inventions covered by our current or future patent applications;
- we might not have been the first to file patent applications covering our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our current or future patent applications will not lead to issued patents;
- any patent issuing from our current or future patent applications may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;
- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file for patent protection in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent application covering such intellectual property.
Should any of the foregoing occur, it could adversely affect our business, financial condition, results of operations and prospects.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.

The growth of our business may depend in part on our ability to acquire, in-license or use third-party proprietary rights. For example, our vaccine candidates may require specific formulations to work effectively and efficiently, we may develop vaccine candidates containing our compounds and pre-existing pharmaceutical compounds, which could require us to obtain rights to use intellectual property held by third parties. For example, we may find from our preclinical or clinical trials that our vaccine candidates achieve improved efficacy through combination with proprietary adjuvants. We may not be able to achieve long-term access to these adjuvants or may be only able to do so under unfavorable terms. This could limit the effectiveness of our vaccine candidates if we are unable to obtain access to these adjuvants or could impact our potential profitability if we can only obtain access under unfavorable terms. In addition, with respect to any patents we may co-own with third parties, we may require licenses to such co-owners interest to such patents. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. In addition, we may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. Were that to happen, we may need to cease use of the compositions or methods covered by those third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on those intellectual property rights, which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license, it may be non-exclusive, which means that our competitors may also receive access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology.

Additionally, we may collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions provide us with an option to negotiate a license to any of the institution’s rights in technology resulting from the collaboration. Even if we hold such an option, we may be unable to negotiate a license from the institution within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies that may be more established or have greater resources than we do may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our vaccine candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. There can be no assurance that we will be able to successfully complete these types of negotiations and ultimately acquire the rights to the intellectual property surrounding the additional vaccine candidates that we may seek to develop or market. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of certain programs and our business financial condition, results of operations and prospects could suffer.

Risks Related to Our Common Stock, This Offering and Being a Public Company

There has been no public market for our common stock and an active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.

Prior to this offering, there has been no public market for our common stock. Although we intend to apply to list our common stock on the Nasdaq Global Market (Nasdaq), an active trading market for our common stock may never develop or be sustained following this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them.
or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses or technologies using our shares as consideration, which, in turn, could materially adversely affect our business.

The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.

Our stock price is likely to be volatile. The stock market in general and the market for stock of biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by these factors discussed in this “Risk Factors” section and many others, including:

- results of our preclinical studies and clinical trials, and the results of trials of our competitors or those of other companies in our market sector;
- our ability to enroll subjects in our future clinical trials;
- regulatory approval of our vaccine candidates, or limitations to specific label indications or target populations for its use, or changes or delays in the regulatory review process;
- regulatory developments in the United States and foreign countries;
- changes in the structure of healthcare payment systems;
- the success or failure of our efforts to develop, acquire or license additional vaccine candidates;
- innovations, clinical trial results, product approvals and other developments regarding our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- manufacturing, supply or distribution delays or shortages;
- any changes to our relationship with any manufacturers, suppliers, collaborators or other strategic partners;
- achievement of expected product sales and profitability;
- variations in our financial results or those of companies that are perceived to be similar to us;
- market conditions in the biopharmaceutical sector and issuance of securities analysts’ reports or recommendations;
- trading volume of our common stock;
- an inability to obtain additional funding;
- sales of our stock by insiders and stockholders;
- general economic, industry and market conditions other events or factors, many of which are beyond our control;
- additions or departures of key personnel;
- intellectual property, product liability or other litigation against us;
- changes in our capital structure, such as future issuances of securities and the incurrence of additional debt; and
- changes in accounting standards, policies, guidelines, interpretations or principles.

In addition, in the past, stockholders have initiated class action lawsuits against biopharmaceutical companies following periods of volatility in the market prices of these companies’ stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert our management’s attention and resources, which could have a material adverse effect on our business, financial condition and results of operations.

We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in “Use of Proceeds.” Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-and intermediate-term, interest-bearing...
obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline.

**You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase.**

The initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our outstanding common stock immediately after the completion of this offering. Purchasers of common stock in this offering will experience immediate dilution of approximately $ per share, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover of this prospectus. In the past, we issued options to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding options are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. For a further description of the dilution that you will experience immediately after this offering, see “Dilution.”

**After this offering, our executive officers, directors and principal stockholders, if they choose to act together, will continue to have the ability to significantly influence all matters submitted to stockholders for approval.**

Following the completion of this offering, our executive officers, directors and greater than 5% stockholders, in the aggregate, will own approximately % of our outstanding common stock (assuming no exercise of the underwriters’ option to purchase additional shares and no exercise of outstanding options or warrants). As a result, such persons, acting together, will have the ability to significantly influence all matters submitted to our board of directors or stockholders for approval, including the appointment of our management, the election and removal of directors and approval of any significant transaction, as well as our management and business affairs. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

**We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation, if any, in the price of our common stock.**

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

**Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.**

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could significantly reduce the market price of our common stock and impair our ability to raise adequate capital through the sale of additional equity securities.

Based on shares of common stock outstanding as of March 31, 2021, upon the closing of this offering, we will have outstanding a total of shares of common stock, assuming no exercise of the underwriters’ option to purchase additional shares and no exercise of outstanding options. Of these shares, only the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters’ option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, unless they are purchased by one of our affiliates.

Our directors and executive officers and holders of substantially all of our outstanding securities have entered into lock-up agreements with the underwriters pursuant to which they may not, with limited exceptions, for a period of 180 days from the date of this prospectus, offer, sell or otherwise transfer or dispose of any of our securities, without the prior written consent of Jefferies LLC, Cowen and Company LLC and Evercore Group, L.L.C. The underwriters may permit our officers, directors and other securityholders who are subject to the lock-up agreements to sell shares prior to the expiration of the lock-up agreements at any time in their sole discretion. See “Underwriting.” Sales of these shares, or perceptions that they will be sold, could cause the trading price of our common stock to decline.
After the lock-up agreements expire, up to an additional shares of common stock will be eligible for sale in the public market, of which shares are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act in each case based on shares of common stock outstanding as of March 31, 2021.

In addition, promptly following this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act registering the issuance of approximately shares of common stock subject to options or other equity awards issued or reserved for future issuance under our equity incentive plans. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up agreements described above and the restrictions of Rule 144 in the case of our affiliates. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of shares of our outstanding common stock, or approximately % of our total outstanding common stock based on shares outstanding as of March 31, 2021, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting and the lock-up agreements described above. See “Description of Capital Stock—Registration Rights.” Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

We are an emerging growth company and a smaller reporting company, and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act, and may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a “large accelerated filer”, as defined under the Exchange Act, our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley);
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, unless the U.S. Securities and Exchange Commission (SEC) determines the new rules are necessary for protecting the public;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We have taken advantage of reduced reporting burdens in this prospectus. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be reduced or more volatile. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of these accounting standards until they would otherwise
apply to private companies. We have elected to avail ourselves of this exemption and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect immediately prior to the consummation of this offering will contain provisions that could significantly reduce the value of our shares to a potential acquiror or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors, unless the board of directors grants such right to the stockholders, to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the required approval of at least 66-2/3% of the shares entitled to vote to remove a director for cause, and the prohibition on removal of directors without cause;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval;
- the required approval of at least 66-2/3% of the shares entitled to vote to adopt, amend or repeal our amended and restated bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- an exclusive forum provision providing that the Court of Chancery of the State of Delaware will be the exclusive forum for certain actions and proceedings;
- the requirement that a special meeting of stockholders may be called only by the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders’ meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror’s own slate of directors or otherwise attempting to obtain control of us.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction.
Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation and amended and restated bylaws will provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine; provided, that this provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, our amended and restated certificate of incorporation will also provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. These choice of forum provisions may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. By agreeing to this provision, however, stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. Furthermore, the enforceability of similar choice of forum provisions in other companies’ certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find the choice of forum provisions in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

General Risk Factors
We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Exchange Act, which will require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, Sarbanes-Oxley, as well as rules subsequently adopted by the SEC and Nasdaq to implement provisions of Sarbanes-Oxley, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted additional rules and regulations in these areas, such as mandatory “say on pay” voting requirements that will apply to us when we cease to be an emerging growth company. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.
We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws and anti-money laundering laws and regulations. Compliance with these legal standards could impair our ability to compete in domestic and international markets. We could face criminal liability and other serious consequences for violations, which could harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls and anti-corruption and anti-money laundering laws and regulations, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, CROs, contractors and other collaborators and partners from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties for clinical trials outside of the United States, to sell our products abroad once we enter a commercialization phase, and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, CROs, contractors and other collaborators and partners, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which we are predominantly self-insured. We rely on third-party manufacturers to produce our vaccine candidates. Our ability to obtain clinical supplies of our vaccine candidates could be disrupted if the operations of these suppliers were affected by a man-made or natural disaster or other business interruption. In addition, our corporate headquarters is located in Seattle, Washington, near earthquake faults and fire zones, and the ultimate impact on us of being located near earthquake faults and fire zones and being consolidated in a certain geographical area is unknown. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

We and any of our third-party manufacturers or suppliers may use potent chemical agents and hazardous materials, and any claims relating to improper handling, storage or disposal of these materials could be time consuming or costly.

We and any of our third-party manufacturers or suppliers and current or potential future collaborators will use biological materials, potent chemical agents and may use hazardous materials, including chemicals and biological agents and compounds that could be dangerous to human health and safety of the environment. Our operations and the operations of our third-party manufacturers and suppliers also produce hazardous waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our product development efforts. In addition, we cannot eliminate the risk of accidental injury or contamination from these materials or wastes. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. In the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended. Although we maintain workers’ compensation insurance for certain costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for toxic tort claims that may be asserted against us in connection with our storage or disposal of biologic, hazardous or radioactive materials.
In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations, which have tended to become more stringent over time. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions or liabilities, which could materially adversely affect our business, financial condition, results of operations and prospects.

**Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.**

The global credit and financial markets have recently experienced extreme volatility and disruptions, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive an economic downturn, which could directly affect our ability to attain our operating goals on schedule and on budget.

**Our ability to use net operating loss carryforwards and other tax attributes may be limited in connection with this offering or other ownership changes.**

We have incurred substantial losses during our history, do not expect to become profitable in the near future and may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire (if at all). At December 31, 2020, we had federal and state net operating loss (NOL) carryforwards of approximately $21.0 million and $2.2 million, respectively.

Under the Tax Cuts and Jobs Act (the Tax Act), federal NOL carryforwards generated in periods after December 31, 2017, may be carried forward indefinitely. The deductibility of federal NOL carryforwards, particularly for tax years beginning after December 31, 2020, may be limited. It is uncertain if and to what extent various states will conform to the Tax Act or the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act). In addition, our NOL carryforwards are subject to review and possible adjustment by the Internal Revenue Service (IRS), and state tax authorities. Under Section 382 of the Internal Revenue Code (the Code), our federal NOL carryforwards may be or become subject to an annual limitation in the event we have had or have in the future certain cumulative changes in the ownership of our company. An “ownership change” pursuant to Section 382 of the Code generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company’s stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. We have not yet determined the amount of the cumulative change in our ownership resulting from this offering or other transactions, or any resulting limitations on our ability to utilize our NOL carryforwards and other tax attributes. However, we believe that our ability to utilize our NOL carryforwards and other tax attributes to offset future taxable income or tax liabilities may be limited as a result of ownership changes, including potential changes in connection with this offering. If we earn taxable income, such limitations could result in increased future income tax liability to us and our future cash flows could be adversely affected. We have recorded a full valuation allowance related to our NOL carryforwards and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

**Changes in U.S. tax law may materially adversely affect our financial condition, results of operations and cash flows.**

On March 27, 2020, the CARES Act was signed into law to address the COVID-19 crisis. The CARES Act is an approximately $2 trillion emergency economic stimulus package that includes numerous U.S. federal income tax provisions, including the modification of: (i) NOL rules (as discussed above), (ii) the alternative minimum tax refund and (iii) business interest deduction limitations under Section 163(j) of the Code.

The Tax Act also significantly changed the U.S. federal income taxation of U.S. corporations. The Tax Act remains unclear in many respects and has been, and may continue to be, the subject of amendments and technical
corrections, as well as interpretations and implementing regulations by the IRS, which have lessened or increased certain adverse impacts of the Tax Act and may continue to do so in the future. In addition, it is unclear how these U.S. federal income tax changes will affect state and local taxation, which often uses federal taxable income as a starting point for computing state and local tax liabilities. We continue to work with our tax advisors and auditors to determine the full impact the Tax Act and the CARES Act will have on us.

Congress may enact additional legislation in connection with the COVID-19 pandemic, and as a result of changes in the U.S. presidential administration and control of the U.S. Senate, additional tax legislation may also be enacted, which could have an impact on our company. We urge our investors to consult with their legal and tax advisors with respect to the Tax Act, the CARES Act, and possible changes in U.S. tax law and the potential tax consequences of investing in our common stock.

If securities or industry analysts do not publish research or reports or publish unfavorable research or reports about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us, our business, our market or our competitors. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of our company, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our stock, our stock price would likely decline. If one or more of these analysts ceases to cover us or fails to regularly publish reports on us, interest in our stock could decrease, which could cause our stock price or trading volume to decline.

If we fail to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

Pursuant to Section 404 of Sarbanes-Oxley, our management will be required to report upon the effectiveness of our internal control over financial reporting beginning with the annual report for our fiscal year ending December 31, 2022. When we lose our status as an “emerging growth company” and do not otherwise qualify as a “smaller reporting company” with less than $100 million in annual revenue, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we may need to upgrade our information technology systems; implement additional financial and management controls, reporting systems and procedures; and hire additional accounting and finance staff. If we or, if required, our auditors are unable to conclude that our internal control over financial reporting is effective, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting once that firm begins its Section 404 reviews, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us, because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of our management's attention and resources, which could harm our business.
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, research and development plans, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and planned clinical trials for our vaccine candidates, the timing and likelihood of regulatory filings and approvals for our vaccine candidates, our ability to commercialize our vaccine candidates, if approved, the impact of COVID-19 on our business, the pricing and reimbursement of our vaccine candidates, if approved, the potential to develop future vaccine candidates, the potential benefits of strategic collaborations and our intent to enter into any strategic arrangements, the timing and likelihood of success, plans and objectives of management for future operations, and future results of anticipated product development efforts, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described under the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we undertake no obligation to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See the section titled "Where You Can Find More Information."

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to rely unduly upon them.
MARKET AND INDUSTRY DATA

We obtained the industry, market and competitive position data used throughout this prospectus from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies and publicly available information in addition to research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires. In addition, while we believe the industry, market and competitive position data included in this prospectus is reliable and based on reasonable assumptions, such data involve risks and uncertainties and are subject to change based on various factors, including those discussed in the section titled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.
USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately $\$ $ million (or approximately $\$ $ million if the underwriters exercise their option to purchase additional shares in full) from the sale of the shares of common stock offered by us in this offering, assuming an initial public offering price of $\$ $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $\$ $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately $\$ $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. A one million share increase (decrease) in the number of shares offered by us would increase (decrease) the net proceeds to us from this offering by approximately $\$ $ million, assuming that the assumed initial public offering price of $\$ $ per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We do not expect that a change in the initial public offering price or the number of shares by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may accelerate the time at which we will need to seek additional capital.

The principal purposes of this offering are to obtain additional capital to support our operations, to create a public market for our common stock and to facilitate our future access to the public equity markets. We intend to use the net proceeds from this offering, together with our existing cash and restricted cash, as follows:

- approximately $\$ $ to fund the continued development of IVX-A12, including completion of nonclinical studies, chemistry, manufacturing and controls (CMC) development and clinical development through a Phase 2b clinical trial, as well as manufacturing scale-up activities;
- approximately $\$ $ to fund ongoing development of our other vaccine candidates, including completion of a Phase 1/2 clinical trial of IVX-411 and potential expansion of our research pipeline; and
- the remainder for working capital and other general corporate purposes, including cross-program research and development activities.

We may also use a portion of the remaining net proceeds to in-license, acquire or invest in complementary businesses, technologies, products or assets, although we have no current agreements, commitments or understandings to do so.

Based on our current operating plan, we believe our existing cash and restricted cash, together with the estimated net proceeds from this offering, will be sufficient to meet our anticipated cash requirements through at least the next $\$ $ months. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we expect. The net proceeds of this offering, together with our existing cash and restricted cash, will not be sufficient to complete development of IVX-A12, IVX-411, or any other vaccine candidate, and after this offering, we will require substantial capital in order to advance our current and future vaccine candidates through clinical trials, regulatory approval and commercialization.

Our expected use of existing cash and restricted cash and our net proceeds from this offering represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. Predicting the costs necessary to develop vaccine candidates can be difficult and we will need substantial additional capital to complete our clinical development of any of our vaccine candidates. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress and costs of our development activities, the status of and results from clinical trials, as well as the status and results from our current and any future collaborations with third parties for our vaccine candidates, and any unforeseen cash needs.
Our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of those net proceeds. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. Pending these uses, we plan to invest these net proceeds in short-term, interest bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States.
DIVIDEND POLICY

We have never declared or paid, and do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.
CAPITALIZATION

The following table sets forth our cash and restricted cash and capitalization as of March 31, 2021:

- on an actual basis;
- on a pro forma basis, giving effect to (i) the automatic conversion of all outstanding shares of convertible preferred stock into an aggregate of 89,908,215 shares of our common stock and the related reclassification of the convertible preferred stock to permanent equity in connection with the closing of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur immediately prior to the closing of this offering; and
- on a pro forma as adjusted basis to reflect (i) the pro forma adjustments set forth above and (ii) our sale of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read the information in this table together with our financial statements and related notes included elsewhere in this prospectus and the sections titled "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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<th>AS OF MARCH 31, 2021</th>
<th>ACTUAL</th>
<th>PRO FORMA</th>
<th>PRO FORMA AS ADJUSTED (1)</th>
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<td>(unaudited, in thousands, except share and per share data)</td>
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<td>Cash and restricted cash</td>
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<td>Convertible preferred stock, par value $0.0001 per share, shares authorized, shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted Stockholders' (deficit) equity:</td>
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<td>Preferred stock, par value $0.0001 per share; no shares authorized, issued and outstanding, actual; shares authorized and no shares issued or outstanding pro forma and pro forma as adjusted</td>
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<td>Common stock, par value $0.0001 per share; shares authorized, shares issued and outstanding, actual; shares authorized pro forma and pro forma as adjusted; shares issued and outstanding, pro forma; and shares issued and outstanding, pro forma as adjusted Additional paid-in capital Accumulated deficit Total stockholders' (deficit) equity Total capitalization</td>
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(1) The pro forma as adjusted information set forth above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and restricted cash, additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. A one million share increase (decrease) in the number of shares offered by us at the assumed initial public offering price per share of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and restricted cash, additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
The table above is based on the number of shares of common stock outstanding as of March 31, 2021, which excludes:

- shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock reserved for future issuance under the 2021 Plan, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan); and
- shares of common stock reserved for future issuance under the ESPP, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP).
If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

As of March 31, 2021, our historical net tangible book value (deficit) was $\ldots$ million, or $\ldots$ per share of our common stock, based on shares of common stock outstanding as of such date. Our historical net tangible book value (deficit) per share represents the amount of our total tangible assets less total liabilities and convertible preferred stock, which is not included in our stockholders deficit, divided by the total number of shares of common stock outstanding at March 31, 2021.

After giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 89,908,215 shares of our common stock and the related reclassification of the carrying value of our convertible preferred stock to permanent equity, in connection with the closing of this offering, and assuming the occurrence of such conversion on March 31, 2021, our pro forma net tangible book value as of March 31, 2021 would have been approximately $\ldots$ million, or approximately $\ldots$ per share of our common stock.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after closing of this offering. After giving further effect to the sale of shares of our common stock that we are offering at the assumed initial public offering price of $\ldots$ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2021 would have been $\ldots$ million, or approximately $\ldots$ per share. This amount represents an immediate increase in pro forma net tangible book value of $\ldots$ per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $\ldots$ per share to new investors participating in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the assumed initial public offering price per share paid by new investors. The following table illustrates this dilution:

<table>
<thead>
<tr>
<th>Assumed initial public offering price per share</th>
<th>$\ldots$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical net tangible book value (deficit) per share at March 31, 2021</td>
<td>$\ldots$</td>
</tr>
<tr>
<td>Pro forma increase in historical net tangible book value (deficit) per share as of March 31, 2021 attributable to conversion of all outstanding shares of convertible preferred stock</td>
<td>$\ldots$</td>
</tr>
<tr>
<td>Pro forma net tangible book value per share as of March 31, 2021, before giving effect to this offering</td>
<td>$\ldots$</td>
</tr>
<tr>
<td>Increase in pro forma net tangible book value per share attributable to investors participating in this offering</td>
<td>$\ldots$</td>
</tr>
<tr>
<td>Pro forma as adjusted net tangible book value per share after this offering</td>
<td>$\ldots$</td>
</tr>
<tr>
<td>Dilution per share to new investors participating in this offering</td>
<td>$\ldots$</td>
</tr>
</tbody>
</table>

Each $1.00 increase (decrease) in the assumed initial public offering price of $\ldots$ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately $\ldots$, and dilution in pro forma net tangible book value per share to new investors by approximately $\ldots$, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated
underwriting discounts and commissions and the estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase of one million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value per share after this offering by approximately $ and decrease the dilution to investors participating in this offering by approximately $ per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. Similarly, a decrease of one million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease our pro forma as adjusted net tangible book value per share after this offering by approximately $ and increase the dilution to investors participating in this offering by approximately $ per share, assuming the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us.

If the underwriters exercise their option to purchase up to additional shares of our common stock in full in this offering, the pro forma as adjusted net tangible book value per share would be $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution per share to new investors would be $ per share, in each case assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus.

To the extent that outstanding options with an exercise price per share that is less than the pro forma as adjusted net tangible book value per share are exercised, new investors will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The following table summarizes, on a pro forma as adjusted basis as of March 31, 2021, the number of shares of common stock purchased or to be purchased from us, the total consideration paid or to be paid to us in cash and the average price per share paid by existing stockholders for shares issued prior to this offering and the price to be paid by new investors in this offering. The calculation below is based on the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table below shows, investors participating in this offering will pay an average price per share substantially higher than our existing stockholders paid.

<table>
<thead>
<tr>
<th>SHARES PURCHASED</th>
<th>TOTAL CONSIDERATION</th>
<th>WEIGHTED-AVERAGE PRICE PER SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER</td>
<td>PERCENT</td>
<td>AMOUNT</td>
</tr>
<tr>
<td>Existing stockholders</td>
<td>%</td>
<td>$</td>
</tr>
<tr>
<td>Investors participating in this offering</td>
<td>100.0%</td>
<td>$</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each $1.00 increase in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase total consideration paid by new investors, total consideration paid by all stockholders and the average price per share paid by all stockholders by $ million, $ million and $, respectively, while each $1.00 decrease in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would decrease total consideration paid by new investors, total consideration paid by all stockholders and the average price per share paid by all stockholders by $ million, $ million and $, respectively, and
assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a one million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by investors participating in this offering, total consideration paid by all stockholders and the average price per share paid by all stockholders by approximately $ million, $ million and $ , respectively, assuming the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The foregoing tables and calculations exclude:

- shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, at a weighted-average exercise price of $ per share;
- shares of common stock reserved for future issuance under the 2021 Plan, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan); and
- shares of common stock reserved for future issuance under the ESPP, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP).
SELECTED FINANCIAL DATA

The following tables set forth our selected historical financial data as of, and for the periods ended on, the dates indicated. We have derived the selected statements of operations and comprehensive loss data for the years ended December 31, 2019 and 2020 and the selected balance sheet data as of December 31, 2019 and 2020 from our audited financial statements included elsewhere in this prospectus. We have derived the selected statements of operations and comprehensive loss data for the three months ended March 31, 2020 and 2021 and the selected balance sheet data as of March 31, 2021 from our unaudited interim condensed financial statements included elsewhere in this prospectus. Our unaudited interim condensed financial statements have been prepared on a basis consistent with our audited financial statements and, in the opinion of management, reflect all adjustments, consisting solely of normal recurring adjustments, necessary for the fair presentation of the financial information in those statements.

You should read these data together with our financial statements and related notes included elsewhere in this prospectus and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our historical results for any prior period are not necessarily indicative of our future results.

<table>
<thead>
<tr>
<th>Statement of Operations and Comprehensive Loss Data:</th>
<th>YEAR ENDED DECEMBER 31, 2019</th>
<th>2020</th>
<th>THREE MONTHS ENDED MARCH 31, (unaudited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant revenue</td>
<td>—</td>
<td>$1,616</td>
<td></td>
</tr>
<tr>
<td>Operating expenses:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>$4,157</td>
<td>$17,667</td>
<td></td>
</tr>
<tr>
<td>General and administrative</td>
<td>1,241</td>
<td>2,659</td>
<td></td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>5,398</td>
<td>20,326</td>
<td></td>
</tr>
<tr>
<td>Loss from operations</td>
<td>(5,398)</td>
<td>(18,710)</td>
<td></td>
</tr>
<tr>
<td>Other income (expense):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in fair value of embedded derivative liability</td>
<td>—</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Interest and other income (expense)</td>
<td>101</td>
<td>(331)</td>
<td></td>
</tr>
<tr>
<td>Total other income (expense)</td>
<td>101</td>
<td>(144)</td>
<td></td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>$ (5,297)</td>
<td>(18,854)</td>
<td></td>
</tr>
<tr>
<td>Series 1 preferred stock dividends</td>
<td>(272)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series 1 preferred stock extinguishment</td>
<td>(400)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net loss attributable to common stockholders, basic and diluted</td>
<td>$ (5,969)</td>
<td>(18,854)</td>
<td></td>
</tr>
<tr>
<td>Net loss per share attributable to common stockholders, basic and diluted (1)</td>
<td>$ (0.90)</td>
<td>$ (2.02)</td>
<td></td>
</tr>
<tr>
<td>Weighted-average shares of common stock outstanding, basic and diluted (1)</td>
<td>6,600,083</td>
<td>9,331,305</td>
<td></td>
</tr>
<tr>
<td>Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited) (2)</td>
<td>$ (0.44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro forma weighted average common shares outstanding, basic and diluted (unaudited) (2)</td>
<td>42,557,462</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) See Note 2 to our audited financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the basic and diluted net loss per share attributable to common stockholders and the number of shares used in the computation of the per share amounts.
The calculations for the unaudited pro forma net loss per share attributable to common stockholders, basic and diluted, excludes the $187,000 change in fair value of the embedded derivative liability and $417,000 of interest expense from the convertible notes, resulting in pro forma net loss per share attributable to common stockholders of $18.6 million for 2020. The unaudited pro forma weighted average common shares outstanding, basic and diluted, assume the conversion of all our outstanding shares of preferred stock into 32,198,879 shares of our common stock, as if the conversion had occurred at the beginning of the period presented, or the issuance date, if later, and the conversion of our convertible notes into shares of our common stock, resulting in an additional 1,027,278 weighted average shares of our common stock.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and restricted cash</td>
<td>$23,079</td>
<td>$15,498</td>
<td>$</td>
</tr>
<tr>
<td>Working capital (1)</td>
<td>22,065</td>
<td>10,326</td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td>23,288</td>
<td>16,170</td>
<td></td>
</tr>
<tr>
<td>Long-term convertible promissory note</td>
<td>—</td>
<td>—</td>
<td>4,947</td>
</tr>
<tr>
<td>Embedded derivative liability</td>
<td>—</td>
<td>—</td>
<td>1,604</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>1,469</td>
<td>12,811</td>
<td></td>
</tr>
<tr>
<td>Convertible preferred stock</td>
<td>30,062</td>
<td>30,062</td>
<td></td>
</tr>
<tr>
<td>Total stockholders’ deficit</td>
<td>(8,243)</td>
<td>(26,703)</td>
<td></td>
</tr>
</tbody>
</table>

(1) Working capital is defined as current assets less current liabilities. See our financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.
The following discussion and analysis should be read in conjunction with our financial statements and related notes included elsewhere in this prospectus. This discussion and analysis and other parts of this prospectus contain forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties and assumptions, such as statements regarding our plans, objectives, expectations, intentions and projections. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set forth in the section titled “Risk Factors” and elsewhere in this prospectus. You should carefully read the “Risk Factors” section of this prospectus to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section titled “Special Note Regarding Forward-Looking Statements.”

Overview
We are a biopharmaceutical company leveraging our innovative VLP platform technology to develop vaccines against infectious diseases, with an initial focus on life-threatening respiratory diseases. Our VLP platform technology is designed to enable multivalent, particle-based display of complex viral antigens, which we believe will induce broad, robust, and durable protection against the specific virus targeted. Our pipeline includes vaccine candidates targeting some of the most prevalent viral causes of pneumonia. We are developing these candidates for older adults, a patient population with high unmet need. Our lead vaccine candidate is IVX-A12, a bivalent combination of IVX-121, a vaccine candidate designed to target RSV, and IVX-241, a vaccine candidate designed to target hMPV. There are currently no vaccines approved for either RSV or hMPV, which are two of the leading causes of pneumonia in older adults. We plan to initiate a clinical trial of IVX-121 in [Year], with topline data expected in [Year 2]. Assuming favorable results from the IVX-121 clinical trial and favorable preclinical data for IVX-241, we plan to initiate a clinical trial of our combination vaccine candidate, IVX-A12, in [Year]. Additionally, we are developing two SARS-CoV-2 vaccine candidates, IVX-411 and IVX-421, and expect to initiate a clinical trial of IVX-411 in [Year], with proof-of-concept data expected in [Year 2].

We commenced our operations in 2017 and have devoted substantially all of our resources to date to organizing and staffing our company, business planning, raising capital, in-licensing intellectual property rights, developing vaccine candidates, scaling up manufacturing of vaccine candidates, and preparing for our ongoing and planned preclinical studies and clinical trials. Our operations to date have been funded primarily through the sale and issuance of convertible promissory notes and our convertible preferred stock. From our inception through December 31, 2020, we had raised a total of $36.2 million to fund our operations, comprised of gross proceeds from the sale and issuance of convertible promissory notes and our convertible preferred stock. As of December 31, 2020, we had cash of $13.1 million and restricted cash of $2.4 million, which does not include gross proceeds of $21.1 million and $93.0 million received in February 2021 and March 2021 from the sale of shares of our Series A-1 and Series B-1 convertible preferred stock, respectively.

We have incurred significant operating losses since inception. Our net losses for the years ended December 31, 2019 and 2020 were $5.3 million and $18.9 million, respectively. As of December 31, 2020, we had an accumulated deficit of $27.1 million. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical development activities, other research and development activities and capital expenditures. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate our expenses will increase substantially as we seek to advance our vaccine candidates through preclinical and clinical development, expand our research and development activities, develop new vaccine candidates, complete clinical trials, seek regulatory approval and, if we receive regulatory approval, commercialize our products, as well as hire additional personnel, protect our intellectual property, and, following this offering, incur additional costs associated with being a public company.

Based on our current operating plan, we believe that the estimated net proceeds from this offering, together with our existing cash and restricted cash, will be sufficient to fund our operations through at least the next 18 months. We have never generated any revenue from product sales and do not expect to generate any revenues from product sales.
sales unless and until we successfully complete development of and obtain regulatory approval for our vaccine candidates, which will not be for several years, if ever. As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from sales of our vaccine candidates, if ever, we expect to finance our cash needs through equity offerings, or debt financings or other capital sources, including potential collaborations, licenses, and other similar arrangements. However, we may not be able to raise additional funds or enter into such other arrangements when needed or on favorable terms, or at all. If we are unable to raise additional capital or enter into such arrangements when needed, we could be forced to delay, limit, reduce or terminate our research and development programs or future commercialization efforts, or grant rights to develop and market our vaccine candidates to third parties where we might otherwise prefer to develop and market such vaccine candidates ourselves.

The global COVID-19 pandemic continues to evolve, and we will continue to monitor the COVID-19 situation closely. The extent of the impact of the COVID-19 pandemic on our business, operations and clinical development timelines and plans remains uncertain, and will depend on certain developments, including its impact on our clinical trial enrollment, trial sites, manufacturers, CROs and other third parties with whom we do business, as well as its impact on regulatory authorities and our key scientific and management personnel. The ultimate impact of the COVID-19 pandemic, including the impact of new variants of the virus that causes COVID-19, or a similar health epidemic is highly uncertain and subject to change. To the extent possible, we are conducting business as usual, with necessary or advisable modifications to employee travel and most of our non-lab-based employees working remotely. We will continue to actively monitor the evolving situation related to COVID-19 and may take further actions that alter our operations, including those that may be required by federal, state or local authorities, or that we determine are in the best interests of our employees and other third parties with whom we do business. At this point, the extent to which the COVID-19 pandemic may affect our business, operations and development timelines and plans, including the resulting impact on our expenditures and capital needs, remains uncertain and is subject to change.

Components of Results of Operations

Grant Revenue
To date, we have not generated any revenues from the commercial sale of approved products, and we do not expect to generate revenues from the commercial sale of our vaccine candidates for at least the foreseeable future, if ever. For the years ended December 31, 2020 revenue was derived from the Grant Agreement we entered into in September 2020 with BMGF, under which we were awarded a grant totaling up to $10.0 million, in support of our development of a SARS-CoV2 vaccine. Unless terminated earlier by BMGF, the Grant Agreement will continue in effect until March 31, 2022. We do not currently expect future grant revenues to be a material source of funding.

Operating Expenses

Research and Development
Research and development expenses consist primarily of external and internal costs related to the development of vaccine candidates. Research and development expenses are recognized as incurred and payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods or services are received.

External costs include:

- expenses incurred in connection with research, laboratory consumables and preclinical studies;
- expenses incurred in connection with conducting clinical trials and site payments for time and pass-through expenses and expenses incurred under agreements with CROs, other vendors, or service providers engaged to conduct our trials;
- expenses incurred in connection with manufacturing of our vaccine candidates and related intermediates under agreements with contract development and manufacturing organizations or other service providers;
- the cost of consultants engaged in research and development related services and the cost to manufacture vaccine candidates for use in our preclinical studies and clinical trials;
costs related to regulatory compliance; and

the cost of annual license fees and milestone payments under our license agreements.

Internal costs include:

employee-related expenses, including salaries, related benefits, travel and stock-based compensation expenses for employees engaged in research and development functions; and

facilities, depreciation and other expenses, which include allocated expenses for rent and maintenance of facilities, insurance and supplies.

Research and development activities are central to our business model. There are numerous factors associated with the successful development and regulatory approval of any of our vaccine candidates, including future trial design and various regulatory requirements, as well as the safety and efficacy of our vaccine candidates, which cannot be determined with accuracy at this time. We may never succeed in obtaining regulatory approval for any of our vaccine candidates. Vaccine candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of any of our vaccine candidates. In addition, we cannot forecast which vaccine candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements. However, we expect that our research and development expenses will increase substantially in connection with our planned preclinical and clinical development activities in the near term and in the future.

Our future development costs may vary significantly based on factors such as:

- the number and scope of preclinical and regulatory filing-enabling studies;
- the number of trials required for approval;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of patients that participate in the trials;
- the number of doses evaluated in the trials;
- the costs and timing of manufacturing our vaccine candidates;
- the drop-out or discontinuation rates of clinical trial subjects;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of subject participation in the trials and follow-up;
- the phase of development of the vaccine candidate;
- the impact of any interruptions to our operations or to those of the third parties with whom we work due to the ongoing COVID-19 pandemic; and
- the efficacy and safety profile of the vaccine candidate.

General and Administrative

General and administrative expenses consist of personnel-related costs, including salaries, payroll taxes, employee benefits, and stock-based compensation charges for personnel in executive, finance and other administrative functions. Other significant costs include facility-related costs, legal fees relating to intellectual property and corporate matters, professional fees for accounting and consulting services, and insurance costs. We anticipate that our general and administrative expenses will increase substantially for the foreseeable future to support our continued research and development activities, pre-commercial preparation activities for our vaccine candidates, and, if any vaccine candidate receives marketing approval, commercialization activities. Following the completion of this offering, we also anticipate increased expenses related to audit, legal, regulatory, and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums, and investor relations costs associated with operating as a public company.
Change in Fair Value of Embedded Derivative Liability

We issued a convertible promissory note in August 2020. We bifurcated certain features that were required to be accounted separately for as a single embedded derivative. The initial fair value of this derivative was recorded as a liability, and as a reduction to the carrying value of the convertible promissory note. We adjusted the carrying value of the embedded derivative liability to its estimated fair value at each reporting date, with any related changes in fair value recorded as an increase or decrease in the fair value of embedded derivative liability in other income in our statements of operations and comprehensive loss. The convertible promissory note converted into 2,805,850 shares of our Series B-2 convertible preferred stock in March 2021.

Prior to the conversion of the convertible promissory note into our Series B-2 convertible preferred stock in March 2021, the fair value of the derivative liability was estimated using a scenario-based analysis comparing the probability-weighted present value of the convertible promissory note payoff at maturity with and without the bifurcated features, considering possible outcomes available to the noteholders, including various financing dissolution scenarios.

Interest Income

Interest income consists of interest income earned on interest bearing demand accounts.

Interest Expense

Interest expense consisted of interest on our outstanding convertible promissory note at a per annum interest rate of 6.0% and non-cash interest expense related to discount amortization prior to its conversion into shares of our Series B-2 convertible preferred stock in March 2021.

Results of Operations

Comparison of the Years Ended December 31, 2019 and 2020

The following table summarizes our results of operations for the years ended December 31, 2019 and 2020 (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>YEAR ENDED DECEMBER 31</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Revenue</td>
<td>$—</td>
<td>$1,616</td>
</tr>
<tr>
<td>Operating expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>20,326</td>
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<td>(18,710)</td>
</tr>
<tr>
<td>Other income (expense):</td>
<td></td>
<td></td>
</tr>
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</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>$(5,297)</td>
<td>$(18,854)</td>
</tr>
</tbody>
</table>

Research and Development Expenses

Research and development expenses were $4.2 million for the year ended December 31, 2019, compared to $17.7 million for the year ended December 31, 2020. The increase of $13.5 million was primarily due to a $11.3 million increase in direct costs related to non-clinical development and manufacturing, a $2.1 million increase in personnel related expenses due to increased headcount to support our development activities, and a $0.1 million increase related to stock-based compensation expense. The $11.3 million increase for direct costs primarily related to development of IVX-121 and IVX-411, including completion of nonclinical immunogenicity studies and GLP toxicology studies, bioanalytical assay development, as well as process development and cGMP manufacturing of drug substance intermediates, drug substance, and drug product to support upcoming clinical trials.
We track outsourced development, outsourced personnel costs and other external research and development costs of specific programs. We do not track our internal research and development costs on a program-by-program basis. Research and development expenses are summarized by program in the table below (in thousands):

<table>
<thead>
<tr>
<th>Program</th>
<th>YEAR ENDED DECEMBER 31</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>IVX-121</td>
<td>$2,132</td>
<td>$11,168</td>
</tr>
<tr>
<td>IVX-411</td>
<td>—</td>
<td>1,415</td>
</tr>
<tr>
<td>Unallocated research and development expense</td>
<td>2,025</td>
<td>5,084</td>
</tr>
<tr>
<td>Total research and development expense</td>
<td>$4,157</td>
<td>$17,667</td>
</tr>
</tbody>
</table>

**General and Administrative Expenses**

General and administrative expenses were $1.2 million for the year ended December 31, 2019, compared to $2.6 million for the year ended December 31, 2020. The increase of $1.4 million consisted of increased personnel-related expenses of $0.9 million, increased legal fees of $0.2 million related to corporate and intellectual property matters, increased other operating expenses including expenses for facility- and employee-related costs of $0.2 million, and increased stock-based compensation expense of $0.1 million.

**Other Income (Expense)**

Other income (expense) was income of $0.1 million for the year ended December 31, 2019, compared to expense of $0.1 million for the year ended December 31, 2020. The increase of $0.2 million in expense for the year ended December 31, 2020 was the result of an increase in interest expense of $0.4 million, partially offset by $0.2 million of income recognized on the change in fair value of embedded derivative liability in 2020.

**Liquidity and Capital Resources**

We have incurred significant operating losses since our inception and anticipate we will continue to incur significant operating losses for the foreseeable future as we continue to develop our current and future vaccine candidates and may never become profitable. As of December 31, 2020, we had been financed primarily through net proceeds of approximately $35.9 million from the sale of our equity securities and convertible promissory notes. Additionally, we may receive up to $10.0 million under the Grant Agreement. As of December 31, 2020, we had cash of $13.1 million, restricted cash of $2.4 million and an accumulated deficit of $27.1 million.

In February 2021, we received gross proceeds of $21.1 million from the second closing of our Series A-1 convertible preferred stock financing, in which we sold 21,944,784 shares of Series A convertible preferred stock at a price of $0.9615 per share.

In March 2021, we received gross proceeds of $93.0 million from the sale of 32,958,612 shares of our Series B-1 convertible preferred stock at a price $2.82172 per share.

**Funding Requirements**

Based on our current operating plan, without giving effect to the anticipated net proceeds from this offering, we believe that our existing cash and restricted cash will be sufficient to meet our anticipated operating expenses and capital expenditures through at least 12 months following the date of this prospectus. Further, based on our current operating plan, we believe that our existing cash and restricted cash, together with the estimated net proceeds from this offering, will be sufficient to meet our anticipated operating expenses and capital expenditures through at least . In particular, we expect the net proceeds from this offering will allow us to complete . However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of testing vaccine candidates in clinical trials is costly, and the timing of progress and expenses in these trials is uncertain.

Our future capital requirements will depend on many factors, including:

- the initiation, type, number, scope, results, costs and timing of, our ongoing and planned clinical trials and preclinical studies or clinical trials of other potential vaccine candidates we may choose to pursue in the future, including feedback received from regulatory authorities;
the costs and timing of manufacturing for current or future vaccine candidates, including commercial scale manufacturing if any vaccine candidate is approved;

- the costs, timing and outcome of regulatory review of current or future vaccine candidates;

- any delays and cost increases that may result from the COVID-19 pandemic;

- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;

- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;

- the costs associated with hiring additional personnel and consultants as our business grows, including additional executive officers and clinical development personnel;

- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements;

- the timing and amount of the milestone or other payments we must make to current and future licensors;

- the costs and timing of establishing or securing sales and marketing capabilities if current or future vaccine candidate is approved;

- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;

- patients’ willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors; and

- costs associated with any products or technologies that we may in-license or acquire.

The net proceeds of this offering, together with our existing cash and restricted cash, will not be sufficient to complete development of IVX-A12, IVX-411, IVX-421 or any other vaccine candidate. Accordingly, we will be required to obtain further funding to achieve our business objectives.

Until such time, if ever, as we can generate substantial product revenues to support our cost structure, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potential collaborations, licenses, and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise funds through collaborations, or other similar arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or vaccine candidates or grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market our vaccine candidates to third parties where we might otherwise prefer to develop and market such vaccine candidates ourselves.

**Cash Flows**

The following table sets forth a summary of the net cash flow activity for each of the periods set forth below (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Net cash provided by (used in):</td>
<td></td>
</tr>
<tr>
<td>Operating activities</td>
<td>$(4,569)</td>
</tr>
<tr>
<td>Investing activities</td>
<td>—</td>
</tr>
<tr>
<td>Financing activities</td>
<td>26,742</td>
</tr>
<tr>
<td>Net increase (decrease) in cash</td>
<td>$22,173</td>
</tr>
</tbody>
</table>
Operating Activities
We have incurred significant operating losses since inception. Net cash used in operating activities for the year ended December 31, 2019 was $4.6 million consisting primarily of our net loss incurred during the period of $5.3 million adjusted for $0.1 million of non-cash charges and $0.6 million for net changes in operating assets and liabilities. Non-cash charges consisted of $0.1 million in stock-based compensation expense.

Net change in operating assets and liabilities related to a $0.7 million increase in accounts payable and accrued and other current liabilities, partially offset by a $0.1 million increase in prepaid and other current assets in support of the growth in our operating activities.

Net cash used in operating activities for the year ended December 31, 2020 was $14.2 million, consisting primarily of our net loss incurred during the period of $18.8 million adjusted for $0.5 million of non-cash charges, and $4.1 million for net changes in operating assets and liabilities. Non-cash charges consisted primarily of $0.4 million non-cash interest expense and $0.3 million in stock-based compensation, which were partially offset by $0.2 million of non-cash income recognized related to the change in fair value of the embedded derivative liability. The net change in operating assets and liabilities consisted of a $2.2 million increase in accounts payable and accrued and other current liabilities and $2.4 million increase in deferred revenue, partially offset by a $0.5 million increase in prepaid and other current assets in support of the growth in our operating activities.

Investing Activities
We did not use cash in investing activities for the year ended December 31, 2019. Net cash used in investing activities for the year ended December 31, 2020 was less than $0.1 million, for purchases of property and equipment.

Financing Activities
Net cash provided by financing activities for the year ended December 31, 2019 was $26.7 million consisting of $0.6 million in proceeds related to the issuance of Series 1 convertible preferred stock in January 2019, $25.9 million in proceeds related to the issuance of Series A-1 convertible preferred stock in August 2019 and $0.2 million proceeds from early exercises of stock options.

Net cash provided by financing activities for the year ended December 31, 2020 was $6.6 million, consisting of $6.4 million related to issuance of a convertible promissory note in August 2020, and $0.2 million proceeds from early exercises of stock options.

Contractual Obligations and Commitments
We had no contractual obligations and commitments as of December 31, 2020.

Under our license agreements, we have milestone payment obligations that are contingent upon the achievement of specified development, regulatory, and commercial sales milestones and are required to make certain royalty payments in connection with the sale of products developed under the agreements. As of December 31, 2020, we are unable to estimate the timing or likelihood of achieving the milestones or making future product sales and, therefore, any related payments are not reflected as contractual obligations herein. See the descriptions of these agreements provided below and in the section of this prospectus titled “Business—Material Agreements” for additional information on these license agreements.

We enter into contracts in the normal course of business for contract research services, contract manufacturing services, professional services and other services and products for operating purposes. These contracts generally provide for termination after a notice period, and, therefore, are cancelable contracts and not included as contractual obligations herein.

License Agreement with the National Institutes of Health
On June 28, 2018, we entered into a non-exclusive patent license agreement (NIH Agreement) with the National Institutes of Health, represented by National Institute of Allergy and Infectious Disease (NIAID). The NIH Agreement was amended in September 2018 and September 2020. Under the NIH Agreement, we obtained a non-exclusive, worldwide, royalty-bearing, sublicensable license under certain NIAID patent rights, and transfer of know-how and biological materials for use in adjuvanted or non-adjuvanted vaccines for the prevention, cure, or treatment of RSV and metapneumovirus infection in humans.
Under the NIH Agreement, we are required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. In consideration of the rights granted to us under the NIH Agreement, we paid a licensing fee upon execution of the NIH Agreement in the low six figures, amendment issue fees in the high five figures, and will pay annual minimum royalty payments starting in the second year after the initial sale of each licensed product which can be credited against any earned royalties due for sales made in the year. There are milestone payments due upon the completion of certain development, regulatory, and commercial milestones for the licensed products in the future. We are obligated to pay aggregate potential milestone payments of up to $2.1 million with respect to future development and regulatory based milestones, and up to $6.5 million with respect to future sales milestones following commercialization. Additionally, we have agreed to pay a tiered royalty of a low single digit percentage on net sales of all products applicable to the license. Additional royalties would be due in connection with sublicenses. Our royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.

The NIH Agreement will terminate upon the last expiration of the patent rights or we may terminate the entirety of the agreement upon discontinuation of development or sales of licensed products and provision of written notice thereof to NIH.

During the years ended December 31, 2019 and 2020, we paid $37,500 and $50,000, respectively, in fees associated with the license, which were recorded as research and development expenses.

License Agreements with University of Washington

On June 29, 2018, we entered into an exclusive license agreement with UW (the UW License Agreement) for an exclusive license to covered intellectual property, a non-exclusive, worldwide license to use licensed know-how, and rights to sublicense for computationally designed nanoparticles and vaccines. The UW License Agreement was amended in July 2019 and again in November 2020. Our rights and obligations under the UW License Agreement are subject to certain U.S. government rights, certain global access commitment rights for humanitarian purposes to BMGF, certain rights to Howard Hughes Medical Institute, and certain other limited rights retained by UW.

We issued 799,045 shares of common stock on August 1, 2018 in exchange for the UW License Agreement’s exclusive license. The shares issued were recorded at their estimated fair value, which is de minimis, with the related expense classified as research and development in 2018.

Under the UW License Agreement, we are required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. In consideration of the rights granted to us under the UW License Agreement, we are required to pay an annual maintenance fee in the mid four figures. Additionally, we are required to pay minimum annual royalties following the first year after commercial sale of each licensed product. There are milestone payments due upon the completion of certain development, regulatory, and commercial milestones for licensed products in the future. The aggregate potential milestone payments for future development, regulatory, and sales-based milestones are $1.35 million per indication, up to a maximum of $6.75 million in total milestone payments. Additionally, we have agreed to pay a royalty of a low single digit percentage on net sales of all licensed products. Additional royalties would be due in connection with sublicenses and additional sales milestones. Our royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.

The UW License Agreement will terminate when all licensed rights have been terminated and all obligations due to UW have been fulfilled, or we may terminate the entirety of the agreement upon written notice thereof to UW.

During the year ended December 31, 2019, we paid $78,000 in fees associated with the license, which were expensed as incurred.

During the year ended December 31, 2020, we paid $5,000 in fees associated with the license, which were expensed as incurred.

On July 2, 2020, we entered into a non-exclusive license agreement with respect to specified intellectual property with options for exclusivity in North America and Europe subject to the performance of certain development milestones, with UW (the Option and License Agreement). Under the Option and License Agreement we also
received a non-exclusive, worldwide (excluding South Korea) license to use specific know-how, and rights to sublicense for computationally designed nanoparticles and vaccines. The Option and License Agreement was amended in August 2020 and in May 2021. Our rights and obligations under the Option and License Agreement are subject to certain U.S. government rights, certain global access commitment rights for humanitarian purposes to BMGF, certain rights to Howard Hughes Medical Institute, and certain other limited rights retained by the UW.

Under the Option and License Agreement, we are required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. We have agreed to pay a royalty of a low single digit percentage on net sales of all products applicable to the license. However, we will not be required to pay royalties on net sales of any licensed product under the Option and License Agreement if we are required to pay royalties on net sales under the UW License Agreement. Additional royalties would be due in connection with sublicenses and milestones. Our royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.

The Option and License Agreement will terminate when all licensed rights have been terminated and all obligations due to the UW have been fulfilled, or we may terminate the entirety of the agreement upon written notice thereof to the UW.

During the year ended December 31, 2020, we reimbursed the UW for patent expenses under the UW License Agreement and the Option and License Agreement of $139,000, which were expensed as incurred.

During the years ended December 31, 2019 and 2020, we did not incur any other fees or make any payments associated with the Option and License Agreement.

Critical Accounting Policies and Significant Judgments and Estimates

Our financial statements are prepared in accordance with generally accepted accounting principles in the United States (GAAP). The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, costs, and expenses and the disclosure of contingent assets and liabilities in our financial statements and accompanying notes. We base our estimates and assumptions on historical experience and other factors that we believe to be reasonable under the circumstances. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience, known trends and events, and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies are the most critical for fully understanding and evaluating our financial condition and results of operations.

Grant revenue
Our current revenue consists of revenue under the Grant Agreement with BMGF. We are reimbursed for certain costs that support development activities, including our regulatory filing preparations for and planned first-in-human Phase 1/2 clinical trial of a SARS-CoV-2 vaccine candidate. The Grant Agreement does not provide a direct economic benefit to BMGF. Rather, we entered into an agreement with BMGF to make a certain amount of any resulting vaccine available and accessible at affordable pricing to people in certain low- and middle-income countries. We assessed this cost reimbursement agreement to determine if the agreement should be accounted for as an exchange transaction or a contribution. Such an agreement is accounted for as a contribution if the resource provider does not receive commensurate value in return for the assets transferred. Contributions are recognized as grant revenue when all donor-imposed conditions have been met.

Accrued Research and Development Expenses
We are required to estimate our obligations for expenses incurred under contracts with vendors, consultants and CROs, in connection with conducting research and development activities. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment flows that do not match the
periods over which materials or services are provided under such contracts. We reflect research and development expenses in our financial statements by recognizing those expenses in the periods in which services and efforts are expended. We account for these expenses according to the progress of the preclinical study or clinical trial as measured by the timing of various aspects of the study, trial or related activities. We determine accrual estimates through review of the underlying contracts along with preparation of financial models taking into account discussions with research and other key personnel as to the progress of studies or trials, or other services being conducted. During the course of a study or trial, we adjust our rate of expense recognition if actual results differ from our estimates.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

**Fair Value of Embedded Derivative Liability and Convertible Promissory Note**

We adjusted the carrying value of the embedded derivative liability that was bifurcated from our convertible promissory note to the estimated fair value at each reporting date, with any related increases or decreases in the fair value recorded as change in fair value of embedded derivative liability within other income in the statements of operations. There were significant judgments and estimates inherent in the determination of the fair value of these liabilities. If we had made different assumptions including, among others, those related to the timing and probability of various financing scenarios, discount rates, volatilities and exit valuations, the carrying values of our embedded derivative liability and convertible promissory note, and our net loss and net loss per share of common stock could have been significantly different.

**Stock-Based Compensation Expense**

Stock-based compensation expense represents the cost of the grant date fair value of employee, officer, director and non-employee stock options. We estimate the fair value of stock options on the date of grant using the Black-Scholes option pricing model and recognize the expense over the requisite service period of the awards, which is generally the vesting period, on a straight-line basis. We account for forfeitures when they occur and reverse any compensation cost previously recognized for awards for which the requisite service has not been completed, in the period that the award is forfeited.

The Black-Scholes option pricing model uses inputs which are highly subjective assumptions, including the fair value of the underlying common stock, expected term of the option before exercise, expected volatility of our common stock, risk-free interest rate and expected dividend.

See Note 8 to our financial statements included elsewhere in this prospectus for more information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options. Certain of such assumptions involve inherent uncertainties and the application of significant judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our stock-based compensation could be materially different.

We recorded stock-based compensation expense of $0.1 million for the year ended December 31, 2019, compared to $0.3 million for the year ended December 31, 2020. As of December 31, 2020, there was $0.7 million of total unrecognized stock-based compensation expense related to unvested stock options which we expect to recognize over a remaining weighted-average period of 2.8 years. We expect to continue to grant stock options and other equity-based awards in the future, and to the extent that we do, our stock-based compensation expense recognized in future periods will likely increase.

The intrinsic value of all outstanding options as of December 31, 2020 was $ million, based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), of which approximately $ million was related to vested options and approximately $ million was related to unvested options.
Common Stock Valuation

We are required to estimate the fair value of the common stock underlying our stock-based awards when performing fair value calculations using the Black-Scholes option pricing model. Because our common stock is not currently publicly traded, the fair value of the common stock underlying our stock-based awards has been determined on each grant date by our board of directors, with input from management, considering our most recently available third-party valuation of common shares. All options to purchase shares of our common stock are intended to be granted with an exercise price per share no less than the fair value per share of our common stock underlying those options on the date of grant, based on the information known to us on the date of grant.

Our determination of the value of our common stock was performed using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants (AICPA), Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation (AICPA Practice Aid). In addition, our board of directors considered various objective and subjective factors to determine the fair value of our common stock, including:

- valuations of our common stock performed by independent third-party valuation specialists;
- the anticipated capital structure that will directly impact the value of the currently outstanding securities;
- our results of operations and our financial position;
- the status of our research and development efforts;
- the composition of, and changes to, our management team and board of directors;
- the lack of liquidity of our common stock as a private company;
- our stage of development and business strategy and the material risks related to our business and industry;
- external market conditions affecting the life sciences and biotechnology industry sectors;
- U.S. and global economic conditions;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an IPO or a sale of our company, given prevailing market conditions; and
- the market value and volatility of comparable companies.

The AICPA Practice Aid prescribes several valuation approaches for setting the value of an enterprise, such as the cost, income and market approaches and the back-solve method, and various methodologies for allocating the value of an enterprise to its common stock. The cost approach establishes the value of an enterprise based on the cost of reproducing or replacing the property less depreciation and functional or economic obsolescence, if present. The income approach establishes the value of an enterprise based on the present value of future cash flows that are reasonably reflective of our future operations, discounting to the present value with an appropriate risk adjusted discount rate or capitalization rate. The market approach is based on the assumption that the value of an asset is equal to the value of a substitute asset with the same characteristics. The back-solve method assigns an implied enterprise value based on the most recent round of funding or investment and allows for the incorporation of the implied future benefits and risks of the investment decision assigned by an outside investor. In determining a fair value for our common stock, we estimated the enterprise value of our business using either the market approach or back-solve method.

In accordance with the AICPA Practice Aid, we considered the various methods for allocating the enterprise value to determine the fair value of our common stock at the valuation date. Under the option pricing method (OPM), shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The value of the common stock is inferred by analyzing these options. The probability weighted expected return method (PWERM) is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

Based on our early stage of development and other relevant factors, we determined that an OPM was the most appropriate method for allocating our enterprise value to determine the estimated fair value of our common stock for valuations performed prior to April 30, 2021. For valuations performed after this date, we used the PWERM method.
to determine the estimated fair value of our common stock. In determining the estimated fair value of our common stock, our board of directors also considered the fact that our stockholders could not freely trade our common stock in the public markets. Accordingly, we applied discounts to reflect the lack of marketability of our common stock based on the weighted-average expected time to liquidity.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates include assumptions regarding our future operating performance, the time to completing an IPO or other liquidity event and the determination of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per share of common stock could have been significantly different.

Following the closing of this offering, the fair value of our common stock will be equal to the closing price of our common stock as reported on the date of the grant.

Income Taxes
We are subject to corporate U.S. federal and state income taxation. As of December 31, 2019 and 2020, we had federal net operating loss carryforwards of $7.0 million and $21.0 million, respectively, and state net operating loss carryforwards of $0.5 million, and $2.2 million, respectively. As a result of the Tax Cuts and Jobs Act of 2017, for U.S. income tax purposes, net operating losses generated after January 1, 2018 will be carried forward indefinitely. As of December 31, 2020, we had research and development tax credit carryforwards of approximately $1.0 million, which begin to expire in 2037. Additionally, as of December 31, 2020, we had state research and development credit carryforwards of approximately $45,000, which carryforward indefinitely.

Utilization of the net operating loss carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. This annual limitation may result in the expiration of net operating losses and credits before utilization. We have not performed an analysis to determine the limitation of our net operating loss carryforwards.

We estimate our income tax provision, including deferred tax assets and liabilities, based on management’s judgment. We record a valuation allowance to reduce our deferred tax assets to the amounts that are more likely than not to be realized. We consider future taxable income, ongoing tax planning strategies and our historical financial performance in assessing the need for a valuation allowance. If we expect to realize deferred tax assets for which we have previously recorded a valuation allowance, we will reduce the valuation allowance in the period in which such determination is first made.

We record liabilities related to uncertain tax positions in accordance with the guidance that clarifies the accounting for uncertainty in income taxes recognized in an enterprise’s financial statements by prescribing a minimum recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

**JOBS Act and Smaller Reporting Company**

As an emerging growth company under the JOBS Act, we can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. We intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of Sarbanes-Oxley.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (iii) the first day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of the prior year, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.
We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Recent Accounting Pronouncements
See Note 2 to our financial statements included elsewhere in this prospectus for recent accounting pronouncements.

Off-Balance Sheet Arrangements
During the periods presented we did not have, nor do we currently have, any off-balance sheet arrangements as defined under SEC rules.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk
Our cash and restricted cash consist of cash in readily available checking accounts and money market funds. As a result, the fair value of our portfolio is relatively insensitive to interest rate changes.

Effects of Inflation
Inflation generally affects us by increasing our cost of labor and research and development contract costs. We do not believe inflation has had a material effect on our results of operations during the periods presented in our financial statements included elsewhere in this prospectus.
Overview
We are a biopharmaceutical company leveraging our innovative virus-like particle (VLP) platform technology to develop vaccines against infectious diseases, with an initial focus on life-threatening respiratory diseases. Our VLP platform technology is designed to enable multivalent, particle-based display of complex viral antigens, which we believe will induce broad, robust, and durable protection against the specific viruses targeted. Our pipeline includes vaccine candidates targeting some of the most prevalent viral causes of pneumonia. We are developing these candidates for older adults, a patient population with high unmet need. Our lead vaccine candidate is IVX-A12, a bivalent combination of IVX-121, a vaccine candidate designed to target respiratory syncytial virus (RSV), and IVX-241, a vaccine candidate designed to target human metapneumovirus (hMPV). There are currently no vaccines approved for either RSV or hMPV, which are two of the leading causes of pneumonia in older adults. We plan to initiate a clinical trial of IVX-121 in , with topline data expected in . Assuming favorable results from the IVX-121 clinical trial and favorable preclinical data for IVX-241, we plan to initiate a clinical trial of our combination vaccine candidate, IVX-A12, in . Additionally, we are developing two severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccine candidates, IVX-411 and IVX-421, and expect to initiate a clinical trial of IVX-411 in , with proof-of-concept data expected in .

Global Vaccine Market Opportunity
The global market for vaccines was over $50 billion in 2020, of which over $12.5 billion was from vaccines for influenza and pneumococcus, two of the leading causes of pneumonia. Lower respiratory infection, including pneumonia, is the leading cause of death and hospitalization from infections and the fourth highest cause of death globally. Older adults are particularly susceptible to respiratory pathogens and it is estimated that prior to COVID-19, lower respiratory infection caused over one million deaths globally in people over the age of 70 every year. RSV is estimated to cause 177,000 hospitalizations and 14,000 deaths in adults 65 years of age or older annually in the United States alone. Many of the viral causes of pneumonia have no approved vaccines, limited treatment options, and result in high morbidity and mortality in the older adult population. There are currently no marketed vaccines for RSV or hMPV, two of the leading causes of pneumonia.

VLP Technology
Our technology platform is based on the VLP approach to vaccine development, which we believe has been validated through the regulatory approvals and commercial success of third-party VLP vaccines and has several benefits. Naturally occurring VLPs have shown the ability to induce high and sustained levels (titers) of neutralizing antibodies (nAbs) in both older and younger adults, which have generally been associated with protective immunity. In addition, we believe VLPs can be used in combination vaccines as VLPs enable multivalent display of antigens in a manner that closely resembles viruses but contain no genetic material. However, VLPs engineered to display complex viral antigens have in general been difficult to develop or successfully manufacture at scale, limiting the pathogens that can be addressed by this approach.

Our vaccine technology is designed to enable the application of VLP-based vaccines against a broader array of pathogens than has been possible with naturally occurring VLPs and to overcome the manufacturing challenges experienced with these VLPs as well as other VLP technologies. Our licensed VLP technology utilizes a two-component computationally designed protein structure that self-assembles without interfering with the structure of the displayed antigens. The individual protein components are expressed and purified using traditional recombinant protein techniques, which we believe will allow us to manufacture our VLP vaccine candidates more efficiently at scale.

Our initial focus is on the development of vaccines to prevent respiratory disease and pneumonia caused by viral pathogens in older adults. We believe there is a need for effective vaccines to combat infections in older adults, who are generally less able to mount an immune response against pathogens compared to other age groups due to the gradual deterioration of the immune system as adults age, also called immunosenescence. Immunosenescence causes older adults to be more susceptible to severe symptoms and death from infections and results in a weaker response to vaccination with conventional vaccines. For RSV, hMPV, and SARS-CoV-2 there is a strong correlation
between nAb levels and increased protection against disease. For this reason, vaccines able to induce the highest nAb titers will likely be the most protective against infection, particularly in older adults. We believe that VLP vaccines may provide an optimal approach for driving this robust antibody response. In addition, we believe our platform has the potential to address the global need for thermostable, low-cost, and readily manufacturable vaccines. We are working on SARS-CoV-2 vaccine candidates to help meet this need in the near term, and plan to evaluate the potential to combine this vaccine candidate with others to develop a combination vaccine candidate in the medium-to-long term.

Our Programs

Our initial focus is on developing vaccine candidate for viral causes of pneumonia in older adults. The following chart summarizes our current programs.

<table>
<thead>
<tr>
<th>Target</th>
<th>Induction</th>
<th>Antigen Description</th>
<th>Lead Candidate Selection</th>
<th>IND Enabling Studies</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Commercial Rights</th>
<th>Anticipated Phase 1 Initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSV/hMPV Bivalent</td>
<td></td>
<td></td>
<td>IVX-121</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSV/hMPV Bivalent</td>
<td></td>
<td></td>
<td>IVX-A12</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SARS-CoV-2</td>
<td></td>
<td></td>
<td>IVX-411</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARS-CoV-2</td>
<td></td>
<td></td>
<td>IVX-421</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* IVX-121 RSV monovalent candidate development following Phase 1 to transition to evaluation as part of the IVX-A12 bivalent RSV/hMPV candidate

**IVX-A12 (RSV-hMPV vaccine candidate), a bivalent combination of IVX-121 (RSV vaccine candidate) and IVX-241 (hMPV vaccine candidate)**

Our lead vaccine candidate, IVX-A12, is a bivalent combination of IVX-121, which is designed to target RSV, and IVX-241, which is designed to target hMPV. Both IVX-121 and IVX-241 have been designed to display prefusion stabilized F antigens of RSV and hMPV, respectively. The F (fusion) proteins of these viruses are critical for viral entry. F proteins are also one of the main targets for nAbs and are a focus of most vaccine efforts for respiratory viruses such as RSV and hMPV. A prefusion stabilized form of the RSV F antigen, DS-Cav1, has been demonstrated in third-party clinical trials to be a robust immunogen. An initial clinical trial with DS-Cav1 showed an induction of nAb titers much higher than had previously been seen with other vaccine approaches to RSV. We have incorporated DS-Cav1 into our VLP candidate IVX-121. Preclinical data with hMPV antigens provide support for the F antigen as a potential target for protective immunity, and we have incorporated a prefusion F antigen into our VLP candidate IVX-241. We believe that multivalent display of these prefusion F antigens on the surface of our VLPs has the potential to induce a robust nAb response capable of conferring protection against infection, which we plan to assess in clinical trials.

We plan to initiate clinical development of IVX-A12 with a clinical trial of IVX-121. We plan to file a clinical trial application (CTA) in Belgium for IVX-121 in and, thereafter, initiate a Phase 1/1b clinical trial to assess the safety and immunogenicity of IVX-121 in adults aged 18-45 and 60-75. We expect to report topline data from this trial in. Assuming favorable results, we plan to submit an investigational new drug application (IND) to the U.S. Food and Drug Administration (FDA) and, thereafter, initiate a Phase 1 clinical trial of IVX-A12 to assess its safety and immunogenicity in adults aged 18-45 and 60-85. We believe that a bivalent VLP vaccine targeting RSV and hMPV is the optimal approach to prevent these two leading causes of pneumonia, neither of which has an approved vaccine to date.

**SARS-CoV-2**

In addition to RSV and hMPV, we are developing two SARS-CoV-2 VLP vaccine candidates, IVX-411 and IVX-421. IVX-411 is designed to present 60 copies of the receptor binding domain (RBD) protein from the SARS-CoV-2 virus strain first identified in China (original viral strain). IVX-421 has been designed with a similar structure and
The key B.1.351 RBD mutations found in the variant strain first identified in South Africa (B.1.351 variant strain). The SARS-CoV-2 vaccine landscape is currently very crowded, with several vaccines having received Emergency Use Authorization (EUA) from the FDA and similar authorizations from other regulatory authorities, as well as additional vaccine candidates in development. However, we believe that given the global demand for SARS-CoV-2 vaccines, our vaccine candidates, if successfully developed and approved, may help address specific gaps in access, either as primary vaccines or as boosters to already authorized vaccines. In October 2020, we announced a grant for $10 million, awarded by the Bill & Melinda Gates Foundation (BMGF), a global non-profit dedicated to improving global health. We are using this grant to evaluate IVX-411 in an initial Phase 1/2 clinical trial where we plan to assess its safety and potential to induce a robust functional immune response against the original viral strain as well as emerging viral variants. We will also be evaluating the potential of IVX-411 to stimulate increased nAb titers in previously vaccinated individuals for its potential use as a booster vaccine. We plan to initiate the Phase 1/2 trial in . We will evaluate our plans for the clinical development of IVX-421 based on the initial results from this trial as well as the results of additional preclinical studies planned to evaluate IVX-421.

Our Team and Investors
We were formed in 2017 to advance the breakthrough VLP technology from the Institute for Protein Design at the University of Washington (UW IPD) with the goal to discover, develop, and commercialize vaccines against infectious diseases. We have assembled an experienced management team, board of directors, and scientific advisory board, who bring extensive industry experience to our company. Our scientific co-founders, Neil King and David Baker, are world leaders in protein design. The Chair of our Board of Directors, Tachi Yamada, is a leader in vaccine development, as the previous head of Global Health at BMGF as well as the previous Chief Medical and Scientific Officer at Takeda responsible for expanding their vaccine business unit. Our CEO, Adam Simpson, has over 20 years of experience in the biotechnology industry, and previously served as CEO of PvP Biologics, a company based on IPD recombinant protein technology, which was acquired by Takeda. Other members of our executive team have deep experience in discovering, developing, manufacturing, and commercializing pharmaceuticals, including vaccines. This includes having worked at major pharmaceutical companies such as GlaxoSmithKline, Novartis, and Takeda.

Since our inception we have raised over $150 million from leading investors in the life science and biotechnology industry, including Qiming Venture Partners USA, Adams Street Partners, RA Capital Management, Sanofi Ventures, ND Capital, Janus Henderson Investors, Perceptive Advisors, Viking Global Investors, Open Philanthropy, Cormorant Asset Management, Omega Funds, and Surveyor Capital (a Citadel company).

Our Strategy
Our goal is to utilize our VLP platform technology to develop vaccines against infectious diseases with an initial focus on life-threatening respiratory diseases. Key elements of our strategy include:

- **Advancing our combination RSV-hMPV VLP vaccine candidate, IVX-A12, through clinical development and regulatory approval for the prevention of respiratory disease and pneumonia in older adults.** We plan to file a CTA in Belgium for our RSV VLP vaccine candidate, IVX-121, in and, thereafter, initiate a Phase 1/1b clinical trial to assess the safety and immunogenicity of IVX-121 in adults aged 18-45 and 60-75. We expect to report topline data from this trial in . Assuming favorable results, we plan to combine IVX-121 with our hMPV VLP vaccine candidate, IVX-241, to produce our bivalent vaccine candidate, IVX-A12, and to advance this combination vaccine candidate into clinical development. We plan to submit an IND to the FDA for IVX-A12 in and, thereafter, initiate a Phase 1 clinical trial of IVX-A12 to assess the safety and immunogenicity of IVX-A12 in adults aged 18-45 and 60-85. We believe that a bivalent RSV and hMPV targeted VLP vaccine has the potential to provide an optimal approach to preventing these two leading causes of pneumonia, neither of which has an approved vaccine.

- **Leveraging our VLP platform technology to pursue additional vaccine candidates in indications with high unmet need.** We believe our VLP vaccine technology has broad applicability beyond RSV and hMPV. We plan to initiate a Phase 1/2 clinical trial evaluating IVX-411 in healthy adults aged 18-69 in . In addition, we plan to evaluate other VLP candidates for indications with high unmet need.

- **Building manufacturing scale-up capability early in the development process:** For all of our programs, we plan to identify and contract with large-scale commercial contract development and manufacturing
organizations early in the development process. We plan to initiate scale-up of manufacturing process development activities immediately following commencement of clinical trials to enable incorporation of manufacturing process changes early in development. We believe that this will lower manufacturing risk for our programs as well as accelerate our timelines to regulatory approval.

- **Further optimizing our VLP platform technology.** We intend to invest in process enhancements that we believe could enable a more rapid development of future vaccine candidates. As part of this plan, we intend to evaluate alternative manufacturing processes that we believe could reduce time from candidate selection to availability of clinical trial material.

- **Maximizing the value of our vaccine candidates through selective partnerships.** As we continue to build and advance our vaccine candidate pipeline, we may explore on a candidate-by-candidate basis partnerships or strategic collaborations to accelerate development or commercialization in key regions with third parties who have complementary capabilities that allow us to enhance the value of our pipeline.

### Vaccine Market Overview

The global vaccine market was estimated to be over $50 billion in 2020 and was anticipated to grow to over $100 billion by 2027. Recombinant, conjugate and subunit vaccines, which include VLP-based vaccines, make up over 50% of this market. Prior to the COVID-19 pandemic, the global vaccine market was expected to grow rapidly at a compound annual growth rate of 10% between 2019 and 2027. The increased awareness of infectious diseases and importance of vaccines driven by the COVID-19 pandemic is likely to increase vaccine utilization further, particularly for respiratory viruses.

Pneumococcal and influenza vaccines are important vaccines in the current respiratory vaccine market. Both are recommended for immunization by healthcare policy makers in the United States and other major markets. The global pneumococcal market was estimated to be around $8 billion in 2020 and is projected to grow to around $13.5 billion in 2030. The influenza market size is challenging to estimate due to the number of marketed vaccines worldwide but was estimated to be around $4.5 billion in 2020 and is projected to grow to around $8 billion by 2027. Older adults make up a significant proportion of these sales. Uptake of both influenza and pneumococcal vaccines in adults over the age of 65 is about 70% in the United States, and it is estimated that approximately 20% of the flu doses administered in the United States are to people over the age of 65. Pneumovax23, a pneumococcal vaccine with uptake primarily in the older adult population, had 2020 sales of $1.1 billion.

Vaccines are designed to prevent disease by providing a safe exposure to key components of pathogens capable of inducing protective immunity. Infants and young children have typically not been exposed to many pathogens and have limited immunity following the disappearance of maternal antibodies. As infants grow into adults the immune system becomes stronger and more capable of fighting off several pathogens that cause disease, owing to both vaccines and natural exposure to infections as children. However, as adults age their immune system becomes weaker and less capable of mounting an effective immune response. This phenomenon is called immunosenescence, and it leaves older adults more susceptible to disease than younger adults. Recently, several vaccines have been approved or recommended specifically for use in older adults and we believe that novel approaches to vaccine development will continue to drive the market for prevention of disease in this population.
Benefit of Combination Vaccines

We plan to utilize our innovative VLP platform technology to develop and deliver combination vaccine products, initially targeting respiratory pathogens in older adults. Combination vaccines have had commercial success in both pediatric and young adult populations with significant patient access and market penetration. This is because combination vaccines can be developed to protect against diverse pathogens or multiple strains or variants of the same pathogen with a single product while having the potential to reduce the number of injections and simplifying the immunization schedule.

We predict that as more vaccines targeting the older adult community are developed, combination vaccines will become the preferred approach for older adults, similar to what has occurred with pediatric and young adult vaccines. We believe an early focus on combination vaccine candidates against respiratory viruses in older adults will give us a competitive advantage over monovalent vaccine candidates in development.

Potential Benefits of VLP Vaccines

There are a number of highly effective vaccines on the market (e.g., Gardasil, Cervarix) and vaccines in development (e.g., TAK-214) that are based on VLPs. In these instances, the vaccines contain proteins from the target pathogen that naturally self-assemble into VLPs and are capable of inducing a protective immune response. Data from third-party preclinical studies and clinical trials suggest that VLPs are capable of inducing a robust and durable immune response, that, in some cases, was superior to soluble antigens.

The robust response to VLPs is due to their interaction with a number of aspects of both the innate and adaptive arms of the immune system, which are responsible for driving immediate and lasting immune responses, respectively. The innate immune system involves a diverse set of cells, including dendritic cells, mast cells, eosinophils, basophils, neutrophils and macrophages, all of which generate a rapid response to pathogens or other foreign bodies. The adaptive immune system is a second line of defense that is specific to a pathogen or antigen and is triggered when antigen presenting cells (APCs) from the innate immune system activate and recruit cells from the adaptive immune system. The adaptive immune system is composed of T cells and B cells which can form immunologic memory and therefore be activated upon reintroduction of the initial antigen or pathogen.

As illustrated in the figure below, VLPs induce robust immune responses through (1) improved uptake and presentation of VLP-based antigens by APCs that “instruct” T cells on pathogenic threats, (2) efficient trafficking of VLPs to the lymph nodes, a critical site for adaptive immune responses, (3) enhanced cellular crosstalk between APCs, T cells and B cells and (4) the potential of multivalent, VLP-based antigens to effectively cross-link and stimulate antigen receptors on B cells, which mature into short-lived plasma cells, long-lived plasma cells and memory B cells following exposure to antigens. Compared to soluble antigens, the observed strength of B cell receptor cross-linking by multivalent, VLP-based vaccines is thought to increase the induction of long-lived plasma.
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1. Improved antigen uptake and presentation by APCs
2. Efficient trafficking to lymph nodes
3. Enhanced cellular crosstalk
4. Strong cross-linking to B cell receptors

We believe there are a number of other potential advantages to VLP-based vaccines. VLPs are non-replicating and non-infectious, which we believe has the potential to make them safer to use in all populations. In addition, since they do not replicate, they have the potential to stimulate immune responses even in the presence of pre-existing immunity, which has limited the utility of some viral vector-based vaccine platforms. VLPs have also been observed to induce robust nAb levels in older adults, despite immunosenescence. VLPs have also been effective in the development of combination vaccines. For example, the Gardasil and Cervarix vaccines for use against HPV, among others, incorporate combinations of VLPs targeting different viral strains. For Gardasil, the initial formulation contained four VLPs, and serotype coverage was expanded through the inclusion of five additional HPV type VLPs in a second-generation product, showing the feasibility of expanding VLP formulations. Gardasil/Gardasil-9 generated $4 billion in 2020 worldwide sales. In addition, the Takeda norovirus VLP candidate TAK-214, a combination of two VLPs targeting different norovirus genotypes, has successfully completed Phase 2 clinical trials. Evaluation of nAb titers induced by TAK-214 showed no difference between the response seen in adults aged 22-48 and adults aged 60 and over.

Limitations of Current VLP Technologies

The major drawback of naturally occurring VLPs is that they often cannot be engineered to display other complex antigen targets or manufactured at commercially relevant scale. Since not all pathogens have protective antigens that naturally form VLPs, this limits the specific pathogens that can be targeted with this approach. Several developers have, and are currently, utilizing various other approaches to develop and manufacture VLP-based vaccines. One approach is to use antigens from viruses that naturally form VLPs (e.g., tobacco mosaic virus and HBV) as scaffolds for viral antigens that fail to form VLPs on their own. There are also naturally occurring proteins that self-assemble into particles (e.g., bacterial protein ferritin or lumazine synthase) that can be used as scaffolds for presenting heterologous antigens. The main limitation of the natural scaffold-based approaches is that the structure is fixed resulting in limitations on the size and nature of the antigens that can be incorporated into these particles. Another approach is to use an enveloped VLP that buds from the host cell and contains cellular lipids that make up the lipoprotein envelope. Although this allows for incorporation of complex heterologous antigens, enveloped VLPs can be challenging to purify, with concerns about viral contamination as well as host-cell proteins being carried through to the enveloped VLP, particularly when mammalian expression systems are used. In addition, enveloped VLPs have historically had poor yields, scalability, and stability challenges. To date, none of these alternative VLP technologies have reached the market.

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Our Solution—Two-Component Computationally Designed VLP Technology

We believe that our two-component VLP platform technology, licensed from the University of Washington (UW), retains the benefits of the naturally occurring VLPs while potentially overcoming the constraints and limitations seen in other VLP technologies to date. Our platform stems from technology developed by researchers at the UW IPD, who pioneered a computationally designed VLP system with potential to address a wide range of vaccine targets. The UW IPD used computational design and empirical testing to develop hundreds of self-assembling two-component protein-based VLP scaffolds.

Our licensed VLP technology encompasses VLPs formed from two protein components that are separately produced using traditional recombinant protein manufacturing techniques. The antigenic Component A consists of a trimeric protein that is genetically fused to the target antigen of interest and produced in eukaryotic cells. The second protein, Component B, is a pentameric structural protein that is produced by bacterial fermentation.

We are focusing our current development efforts on a single VLP scaffold, which allows for the same Component B to be shared across multiple vaccine candidates featuring different antigens presented on Component A, as illustrated in the graphic below.

Component A and Component B are expressed and purified separately prior to assembly. Upon mixture, the two protein components self-assemble into an icosahedral VLP displaying 20 copies of a trimeric antigen, such as RSV or hMPV, or 60 copies of a monomeric antigen, such as the RBD antigen in the SARS-CoV-2 vaccine candidate, as illustrated below.
Using our VLP platform technology we engineer vaccine candidates comprised of self-assembling proteins that are designed to have the following potential benefits:

- **Robust, durable, and broad immune responses.** The icosahedral symmetry of our VLPs mimics viral geometry and is designed to allow for increased antigen density, which is known to trigger robust B cell responses. We believe that preclinical data support the potential of our platform to generate VLPs that induce high nAb levels, durable immunogenicity and cross-protection against related viral strains.

- **Potential to display complex heterologous antigens.** Our approach allows for the multivalent display of complex antigens that would not normally form into VLPs.

- **Highly scalable manufacturing and ease of purification.** Our two-component technology facilitates the use of standard, scalable recombinant protein methods for vaccine manufacturing and purification with well-established cell line and fermentation technologies.

- **Increased antigen stability.** Our VLPs are designed to confer increased stability to our vaccine candidates, which we believe will allow for improved storage and distribution.

### Our Programs

Our current development efforts are focused on addressing the unmet need for safe and effective vaccines against leading causes of lower respiratory infections (LRIs), including pneumonia, in older adults. LRIs are the fourth leading cause of death worldwide, with mortality increasing with age and existing conditions. LRIs lead to over one million deaths worldwide per year in people over 70 years of age and pneumonia is the most common LRI. Many of the viruses found to be associated with pneumonia and LRIs have no approved vaccines, including RSV and hMPV.

We have developed each of our vaccine candidates using a robust selection process to identify what we believe is the best antigen. Our selection process includes screening for expression, protein conformation, stability, VLP assembly competence, and evaluation of immunogenicity in multiple animal models, including those that have been previously infected with the pathogen (i.e., primed). We in-license antigens where we believe that others’ discoveries may be optimally suited for our technology. We also develop our own antigens in-house.

**IVX-A12—Our Combination RSV-hMPV VLP Vaccine Development Program**

Our lead development program, IVX-A12, combines two VLP vaccine candidates, IVX-121 and IVX-241, into a single combination vaccine. IVX-121 is an RSV vaccine candidate for which we plan to commence a Phase 1 clinical trial in . IVX-241 is an hMPV vaccine candidate in preclinical development, which we plan to combine with IVX-121 to form IVX-A12, which we plan to advance into a Phase 1 clinical trial in .
Marketed vaccines for pneumococcus and influenza, two major causes of pneumonia, have an estimated combined annual 2020 global revenue of $13 billion. RSV and hMPV are also highly prevalent respiratory pathogens that occur seasonally. The largest epidemiological study assessing prevalence of RSV and hMPV that compared with influenza and pneumococcal in adults was the EPIC study published in 2015. Based on this study, the two most common pathogens causing pneumonia in adults after human rhinovirus, influenza pneumococcus and influenza were RSV and hMPV, which were found in 8% and 11%, respectively, of U.S. adults hospitalized for community acquired pneumonia where any pathogen was detected, as shown below.

**Top 5 Pathogens Detected in Adults Hospitalized with Community-Acquired Pneumonia (EPIC Study*)**

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>% of pathogens detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human rhinovirus</td>
<td>25%</td>
</tr>
<tr>
<td>Influenza A/B</td>
<td>16%</td>
</tr>
<tr>
<td>S. pneumoniae</td>
<td>15%</td>
</tr>
<tr>
<td>Human metapneumovirus (hMPV)</td>
<td>12%</td>
</tr>
<tr>
<td>Respiratory syncytial virus (RSV)</td>
<td>7%</td>
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</tbody>
</table>

* EPIC study data from supplementary information published in Jain et al., 2015

In addition, recent data show that both morbidity and mortality in U.S. adults hospitalized with viral pneumonia is higher with both RSV (16.1% likelihood of ICU admission and 5.2% likelihood of death) and hMPV (16.5% likelihood of ICU admission and 3.9% likelihood of death) than with influenza (11.5% likelihood of ICU admission and 3.3% likelihood of death). Given these data, a combined RSV-hMPV vaccine could address a substantial unmet medical need.

**IVX-121—RSV VLP Vaccine Candidate**

**Overview of RSV**

RSV is an RNA virus that replicates in the nose and lungs and is a major viral cause of LRI worldwide. There are two major subtypes of RSV, A and B, which may co-circulate in a single RSV season. Re-infection is common, and all older adults are expected to have been exposed to RSV and have RSV-specific antibodies. The most common symptoms are cough, fatigue, dyspnea, congestion, wheezing, and fever.

**High Neutralizing Antibody Titers Correlate with Reduced Risk of Infection and Disease**

There is substantial data correlating high nAb titers with protection against RSV. Published preclinical data, natural history studies, human challenge studies, and clinical data all demonstrate reduced risk of infection and disease when higher nAb titers are present. Published natural history studies have demonstrated that once partial protection is achieved, every additional doubling in RSV nAb titer may be associated with an 22-25% decrease in RSV-associated hospitalization. Data from a Phase 2 clinical trial conducted by Sanofi that followed 1,180 subjects aged 65 or older with cardiopulmonary disease over two years at U.S. sites provided additional support that...
increasing titers correlate with a reduced risk of respiratory illness. As illustrated in the figure below, a doubling of RSV nAb titer was observed to be correlated with a reduced risk of acute respiratory infections (ARIs). Based on these and similar findings, we have designed IVX-121 to increase the magnitude, quality, and durability of the nAb response.

![Graph based on data published in Falsey et al., 2008](image)

**Prefusion RSV-F Protein-Based Vaccines May Generate Higher Neutralizing Antibody Titers than Postfusion Vaccines**

RSV contains several glycoproteins that are important for different functions of the virus, including the surface fusion protein F (RSV-F). RSV-F is a highly conserved glycoprotein that contains the majority of the neutralizing epitopes, specific regions of antigens that bind protective antibodies. We believe RSV-F was validated as a target for protection by the clinical efficacy and approval of Synagis, a monoclonal antibody used to protect against serious lower respiratory tract disease caused by RSV in children at high risk of RSV disease, and RSV-F is the focus of most RSV vaccine development efforts. RSV-F is critical for fusion of the virus with the host cell membrane and the conformation of RSV-F changes significantly between the prefusion or postfusion state. nAbs that bind to prefusion F can block viral entry into cells, thereby reducing viral replication and the severity of RSV-related disease.

The RSV-F protein naturally shifts to the postfusion state and vaccine developers initially focused on vaccines containing the postfusion conformation. These vaccine candidates induced approximately two- to four-fold increases in nAb titers, which was not a sufficient increase in nAb titers to protect a large enough portion of the trial participants to justify continued development.

Data now show that the majority of the nAbs against RSV-F in human sera are directed against the prefusion conformation, and that prefusion directed antibodies have greater neutralizing activity than antibodies directed against the postfusion protein. Researchers at the National Institutes of Health (NIH) developed an antigen called DS-Cav1, a prefusion stabilized form of RSV-F that has elicited high titers of nAbs against RSV in mice and nonhuman primates. The NIH conducted an initial Phase 1 trial of DS-Cav1 that showed the antigen induced high nAb titers in humans, much higher than had been seen with postfusion F antigens tested by other developers, as further described below. Although DS-Cav1 provided proof-of-concept for prefusion RSV F antigens, DS-Cav1 is not fully stabilized in the prefusion conformation and converts over time to a postfusion structure, which has limited its commercial viability.
We have in-licensed the prefusion RSV-F antigen DS-Cav1 and related technology from the NIH and have incorporated the DS-Cav1 antigen assessed in the NIH Phase 1 trial onto our VLP scaffold. IVX-121 has been designed to display 20 copies of DS-Cav1 as a novel two-component VLP, as shown on the right of the figure below.

Clinical Proof-of-Concept of RSV Prefusion Vaccine from the NIH

The NIH conducted a Phase 1 proof-of-concept trial of DS-Cav1 in healthy volunteers to evaluate dose, safety, tolerability and immunogenicity of the stabilized RSV prefusion subunit protein vaccine alone or with aluminum hydroxide (alum), a commonly used aluminum salt adjuvant. Adjuvants can be used to induce a stronger immune response in people vaccinated. Aluminum salts are a widely used adjuvant in human vaccines and pose a low safety risk to humans based on hundreds of studies conducted to date with aluminum salt adjuvanted vaccines. In the NIH trial, 90 healthy adult subjects 18-50 years of age were vaccinated with formulations of DS-Cav1 with or without alum at dose levels of 50, 150, or 500 micrograms of prefusion antigen. Subjects received intramuscular vaccinations at day 0 and at week 12. Published interim results following dosing of the first 40 subjects with 50 or 150 micrograms with or without alum demonstrated that, as of a cutoff date of December 13, 2017, immunization resulted in a 7 to 15-fold increase in nAb titers from baseline against RSV/A, as illustrated in the figure on the right below. Although NIH’s trial did not include a head-to-head comparison against other RSV vaccine candidates, the increase in nAb titers from baseline observed in this trial was higher than the ~1.5 to 4-fold rises observed with previous RSV-F protein-based vaccine candidates. As an example, in Novavax’s Phase 1 clinical trial of an RSV-F candidate in adults aged 18-49, a 1.5 to 2.4-fold rise across non-adjuvanted or aluminum salt (Adjuphos) adjuvanted groups was observed over a similar time period, as illustrated in the figure on the left below. We believe the NIH data supported the hypothesis that stabilizing the prefusion structure has the potential to improve the functional immune response against the RSV F antigen. Neutralizing titers against the important viral subtype RSV/B were also increased ~4 to 9-fold in the NIH trial, indicating comparative increases in breadth of the humoral response. The aluminum salt adjuvants showed limited effect in both the NIH and Novavax trials.

We believe that multivalent, particle-based display of the DS-Cav1 antigen has the potential to improve antigen presentation and B cell receptor cross-linking as has been observed with other VLPs. In addition, we have observed that the fusion of DS-Cav1 to the assembly domain of Component A of the VLP further stabilizes the prefusion structure of RSV-F so that the prefusion conformation is maintained under normal storage conditions.

Clinical Proof-of-Concept of RSV Prefusion Vaccine from the NIH

The NIH conducted a Phase 1 proof-of-concept trial of DS-Cav1 in healthy volunteers to evaluate dose, safety, tolerability and immunogenicity of the stabilized RSV prefusion subunit protein vaccine alone or with aluminum hydroxide (alum), a commonly used aluminum salt adjuvant. Adjuvants can be used to induce a stronger immune response in people vaccinated. Aluminum salts are a widely used adjuvant in human vaccines and pose a low safety risk to humans based on hundreds of studies conducted to date with aluminum salt adjuvanted vaccines. In the NIH trial, 90 healthy adult subjects 18-50 years of age were vaccinated with formulations of DS-Cav1 with or without alum at dose levels of 50, 150, or 500 micrograms of prefusion antigen. Subjects received intramuscular vaccinations at day 0 and at week 12. Published interim results following dosing of the first 40 subjects with 50 or 150 micrograms with or without alum demonstrated that, as of a cutoff date of December 13, 2017, immunization resulted in a 7 to 15-fold increase in nAb titers from baseline against RSV/A, as illustrated in the figure on the right below. Although NIH’s trial did not include a head-to-head comparison against other RSV vaccine candidates, the increase in nAb titers from baseline observed in this trial was higher than the ~1.5 to 4-fold rises observed with previous RSV-F protein-based vaccine candidates. As an example, in Novavax’s Phase 1 clinical trial of an RSV-F candidate in adults aged 18-49, a 1.5 to 2.4-fold rise across non-adjuvanted or aluminum salt (Adjuphos) adjuvanted groups was observed over a similar time period, as illustrated in the figure on the left below. We believe the NIH data supported the hypothesis that stabilizing the prefusion structure has the potential to improve the functional immune response against the RSV F antigen. Neutralizing titers against the important viral subtype RSV/B were also increased ~4 to 9-fold in the NIH trial, indicating comparative increases in breadth of the humoral response. The aluminum salt adjuvants showed limited effect in both the NIH and Novavax trials.

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Prefusion F Protein Stability

In preclinical studies, we have observed that the fusion of DS-Cav1 to Component A further stabilized the prefusion conformation and the resultant assembled VLP was very stable at two to eight degrees Celsius, which is a typical temperature range for vaccine storage. In comparison, long-term storage of DS-Cav1 at four degrees Celsius resulted in a shift away from the prefusion stabilized structure as measured by reduction of prefusion specific antibody binding, including D25 binding, by 102 days.

Preclinical Results

We have completed several preclinical studies of IVX-121 and precursor candidates in animal models of RSV infection. As all adults are expected to have been exposed to RSV, we believe the most relevant animal models are those that use animals that are first infected with RSV prior to vaccination. In these models, animals’ immune systems are given prior exposure to the virus (i.e., primed), similar to what would be expected in human adults.

**IVX-121 Preclinical Data in RSV-Primed Models.** To evaluate the ability of IVX-121 to stimulate immune responses in animals with pre-existing immunity, BALB/c mice were infected with RSV and allowed to recover over a 3-month period. To reduce experimental variability, animals were randomized into groups based on their Day 28 RSV/A neutralizing titers. Animals were evaluated for pre-boost baseline titers on Day 91 and then immunized with either IVX-121 or soluble DS-Cav1 vaccine formulations, with or without Alhydrogel, a commonly used aluminum-based adjuvant. Ten days after the immunization blood was collected for assessment of nAb titers.

To account for variability in the immune response of individual animals to RSV infection, it is necessary to evaluate the relative rise in nAb titers over baseline in each animal. Dose levels of IVX-121 were matched with dose levels of DS-Cav1 meaning a 0.1 microgram dose of IVX-121 would have 0.1 micrograms of DS-Cav1 in the VLP preparation.

As shown in the figure below, IVX-121 induced strong nAb responses that were statistically superior to DS-Cav1 at the 0.1 microgram dose (p<0.05) using both parametric (t-test) and non-parametric tests (Wilcoxon test). The maximum increase in nAb titers (>15x) for the aqueous IVX-121 formulation was seen at the 0.3 microgram dose level, which was higher than the increase observed with the equivalent dose of DS-Cav1, although the results were not statistically significant. At the 1 microgram dose IVX-121 and soluble DS-Cav1 induced similar increases in nAb titers. Use of Alhydrogel did not significantly increase the immune response to IVX-121 in RSV-primed mice (not shown).
Neutralizing Antibodies Generated by IVX-121 vs. Soluble DS-Cav1 in RSV-primed Mice

![Graph showing neutralizing antibody titers](image)

^SEM = standard error of log2 transformed fold rise in nAb titers

*p = 0.011 (t-test); p = 0.024 (Wilcoxon test)

A p-value is the probability that the reported result was achieved purely by chance, such that a p-value of less than or equal to 0.05 means that there is a less than or equal to 5% probability that the difference between the control group and the treatment group is purely due to chance. A p-value of 0.05 or less typically represents a statistically significant result. The FDA's evidentiary standard of efficacy when evaluating the results of a clinical trial generally relies on a p-value of less than or equal to 0.05.

In addition, to assess the cellular immune response to IVX-121 splenocytes from individual mice were collected and analyzed in an IFN-gamma ELISpot assay following stimulation with F-specific peptide. As compared to a saline control group, IVX-121 treated mice showed an increase in IFN-gamma positive CD4+ T cells, which suggests a boosted cellular immune response induced by IVX-121.

Preclinical Data in RSV-naïve Animals. Studies performed at the UW IPD on a precursor VLP-based antigen to IVX-121, DS-Cav1-I53-50, showed superiority of the multivalent, VLP presentation of DS-Cav1 over the soluble antigen. The preclinical studies with DS-Cav1-I53-50 in both naïve (non-primed) mice and naïve non-human primates, demonstrated a ~10-fold increase in neutralizing titers over the soluble DS-Cav1 antigen. In the mouse study, DS-Cav1 and DS-Cav1-I53-50 were formulated with the oil-in-water adjuvant Addavax and a 5 mcg DS-Cav1 dose equivalent was utilized for all groups. A statistically significant difference in nAbs titers induced by DS-Cav1-I53-50 and DS-Cav1 was observed (p<0.01). In the primate study, DS-Cav1 and DS-Cav1-I53-50 were formulated with the oil-in-water adjuvant SWE and a 50 mcg DS-Cav1 equivalent dose was given to both groups. A statistically significant difference in nAbs titers induced by DS-Cav1-I53-50 and DS-Cav1 was observed (p<0.05). In a subset of the primates, bone marrow was collected to assess level of induction of antigen-specific long-lived plasma cells (LLPCs), an early marker of a potential durable immune response. Primates immunized with the DS-Cav1-I53-50 VLPs showed a non-significant, but numerical increase in antigen-specific LLPC induction in bone marrow and spleen compared with animals immunized with soluble DS-Cav1. A separate non-human primate study evaluated the potential impact of Adjuphos, an aluminum salt adjuvant different from the one we plan to use in the clinic, on the IVX-121 formulation. The formulation of IVX-121 using Adjuphos induced similar levels of nAb titers to DS-Cav1 formulated with Adjuphos. The specific aluminum salt adjuvant we plan to utilize in clinical testing is Alhydrogel. Preclinical data in naïve mice suggest this adjuvant could yield improved nAb titers in naïve animals.
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**IVX-121 Preclinical Safety Studies.** We have completed a toxicology study to support regulatory submissions and entry into Phase 1 trials in Europe. The toxicology study evaluated both injection site and systemic reactions to the vaccine candidate. No adverse effects were seen following administration of the anticipated maximum human dose of IVX-121 (250ug +/- Alhydrogel), with minor injection site reactivity comparable to animals receiving saline control. The only histological finding that differed from the saline control was a modest increase in the spleens of animals receiving IVX-121, consistent with the induction of a robust immune response.

**IVX-241 hMPV VLP Vaccine Candidate**

**Overview of hMPV**

hMPV is an RNA virus that is related to the RSV virus. hMPV was first identified in 2001, though it was likely in circulation for at least 50 years prior to discovery. Infection with hMPV brings a similar symptomatic profile as RSV with the most common symptoms being cough, wheezing, dyspnea, congestion and fatigue. Similar to RSV, there are two genetic lineages of hMPV, hMPV/A and hMPV/B, which show a high degree of sequence homology and co-circulate with varying annual prevalence of each strain. The hMPV virus has several highly conserved viral proteins including a fusion protein (F). Preclinical studies have demonstrated that immunization with the F protein is capable of inducing nAbs and protecting against viral challenge in animal models. Vaccination with an F protein from one lineage has been shown to result in nAb titers capable of protection against both hMPV strains, though titers against the heterologous strain are often lower. The F protein of hMPV has both prefusion and postfusion conformations, similar to RSV F.

RSV, hMPV, and influenza seasons show high seasonal overlap and hMPV is underdiagnosed and often mistaken for RSV or influenza given the similarity in clinical presentation. As diagnostic tools improve, hMPV is being increasingly recognized as a major contributor to ARI and LRI. There are currently no FDA-approved antivirals or vaccines to treat or prevent hMPV.

**hMPV Antigen Selection and Immunogenicity Results**

Expression of the hMPV F protein has been shown to be challenging and efforts have been made to introduce modifications within the protein to improve expression and stabilize the prefusion structure. We evaluated a number of potential candidate antigens for compatibility with our two-component VLP platform and selected IVX-241 with another candidate, IVX-231, that continues to be evaluated as an alternative. IVX-241 incorporates an F antigen from hMPV/A and IVX-231 incorporates a prefusion F antigen from hMPV/B. Both were selected based on key criteria, including: high expression, prefusion conformation, monodispersity, VLP stability, and high nAb titers following VLP administration in rodent studies.
We performed head-to-head testing of the immunogenicity of IVX-231 and IVX-241, formulated with the oil-in-water adjuvant Addavax, in naïve mice to evaluate the quality of the antigens based on nAb titers induced by each antigen against hMPV/A. While both IVX-231 and IVX-241 induced high nAb titers against hMPV/A, IVX-241 nAb titers against the hMPV/A strain were statistically superior to those generated by IVX-231 (p<0.01) and appeared to be higher than the single human control sera included as a positive control, as shown below.

** We selected IVX-241 as the lead candidate for inclusion in IVX-A12 based on its ability to induce high nAb titers as well as its improved thermostability and monodispersity compared to IVX-231, physical characteristics we believe are important for further development.

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We plan to evaluate both unadjuvanted and Alhydrogel-adjuvanted IVX-121 formulations in our Phase 1 first-in-human trial. However, based on the NIH and our own preclinical studies, we may not see a significant enhancement in the nAb titers induced by Alhydrogel. For this reason, in parallel with the clinical assessment of IVX-121, we also plan to assess an oil-in-water adjuvant in our planned clinical trial of IVX-411 and in preclinical studies with our combination candidate IVX-A12. Based on the IVX-121 and IVX-411 clinical data as well as preclinical data to be generated with respect to IVX-121, IVX-241 and related candidates, and different formulations of IVX-A12, we will determine whether to investigate an Alhydrogel-adjuvanted formulation or an oil-in-water adjuvanted formulation, in addition to a non-adjuvanted formulation for the planned Phase 1 clinical trial of IVX-A12.

IVX-121 Phase 1/1b and IVX-121 Phase 1b Revaccination Trial

Our plan for the clinical development of IVX-A12 is to first assess safety and immunogenicity of the RSV monovalent VLP candidate IVX-121 in an initial Phase 1/1b trial, to be conducted in Belgium. This first-in-human trial with IVX-121 will be a randomized, observer-blind, placebo-controlled multi-center Phase 1/1b trial designed to evaluate the safety and immunogenicity of three dose levels of non-adjuvanted and Alhydrogel-adjuvanted IVX-121 in two adult cohorts: 18-45 years of age (Phase 1 first-in-human) and 60-75 years of age (Phase 1b). The maximum total number of subjects to be enrolled across the Phase 1 and Phase 1b parts of the trial is 90 adults 18-45 years of age and 217 older adults 60-75 years of age, respectively. Subjects will be evaluated for safety and persistence of antibody response for six months following a single intramuscular administration of either IVX-121 or placebo.

A schema of the planned Phase 1/1b trial is given in the table below:

<table>
<thead>
<tr>
<th>STUDY ARM</th>
<th>VLP DOSE</th>
<th>ALHYDROGEL</th>
<th>PHASE 1: ADULTS AGED 18-45 N=90</th>
<th>PHASE 1B: ADULTS AGED 60-75 N=217</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>N/A (placebo)</td>
<td>-</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>B</td>
<td>Low</td>
<td>-</td>
<td>15</td>
<td>31</td>
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<tr>
<td>C</td>
<td>Low</td>
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<td>15</td>
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<tr>
<td>E</td>
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<td>High</td>
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<tr>
<td>G</td>
<td>High</td>
<td>+</td>
<td>15</td>
<td>31</td>
</tr>
</tbody>
</table>

We plan for subjects who complete the Phase 1b part of the trial to be eligible to enroll into a Phase 1b revaccination trial, which we expect will start more than six months after first dosing. We plan to follow eligible subjects for an additional six months to monitor serious adverse events (SAEs) and evaluate persistence of antibodies. At the end of the six-month observation period (approximately 12 months after first dosing), we plan to re-administer subjects with a single dose of IVX-121 and follow those subjects for an additional six months to evaluate safety and immune responses to the booster dose. We plan to monitor subjects for solicited adverse events, unsolicited adverse events, and SAEs throughout the 28-day treatment period following revaccination.

We expect to conduct an interim analysis of the data obtained in older adults from the Phase 1b part of the trial to inform the IVX-121 dose level and formulation to be assessed in the initial IVX-A12 combination Phase 1 trial. If there is no clear immunologic benefit of the Alhydrogel formulation over the non-adjuvanted formulation, we will not continue to develop an Alhydrogel formulation in the combination IVX-A12 program. We are also currently evaluating an oil-in-water adjuvant in preclinical studies and may assess an oil-in-water formulation in initial IVX-A12 clinical trial(s) pending outcome of the IVX-121 clinical trial, our planned clinical trial of IVX-411 and preclinical evaluation of IVX-121, IVX-241 and related candidates and different formulations of IVX-A12.
IVX-A12 Phase 1 Trial
Following the interim analysis of the IVX-121 Phase 1b data, we plan to submit an IND to the FDA for the IVX-A12 combination program. We plan to include this interim data in an IND that we plan to submit to the FDA in .

The planned goal of the planned Phase 1 trial of IVX-A12 will be to assess safety and immunogenicity of varying doses of IVX-A12, with and without adjuvant, in healthy adults aged 18-49 and 60-85 years of age. The adjuvant to be assessed will depend on preclinical data on IVX-A12 as well as clinical data on IVX-121 and IVX-411. In the planned trial, IVX-A12 will be given with a fixed IVX-121 dose and one of three dose levels of IVX-241 VLP formulated with constant adjuvant content. We expect this design will enable evaluation of the immune responses to both individual components of IVX-A12 to see if the combination of VLPs increases the reactogenicity or leads to immune interference (i.e., imbalanced immune responses to component VLPs). Our plan is to proceed dosing with cohorts receiving one- and two-dose regimens as well as formulations with or without adjuvant. We expect to follow subjects for seven months from initial dosing. Our plan is to only evaluate the combination candidate IVX-A12 in this trial, with no evaluation of IVX-241 as a monovalent candidate. We plan to confirm if the FDA agrees with the acceptability of this approach through pre-IND feedback that we expect to receive from the FDA in .

IVX-A12 Phase 2 Factorial and Dose-Finding Trial
Following completion of the IVX-A12 Phase 1 clinical trial, we plan to initiate a Phase 2 factorial and dose-finding trial in adults 60 years of age or older. We plan to select a one- or two-dose regimen for evaluation in the Phase 2 trial based on data from the IVX-A12 Phase 1 trial. Our planned Phase 2 trial will be a two-part trial. The planned Part 1 will evaluate different combinations of varying concentrations of hMPV and RSV VLPs to assess for immunologic interference between the VLPs in IVX-A12. The planned Part 2 will evaluate a subset of formulations pending an interim readout from Part 1, to guide final dose selection for a subsequent Phase 2b trial. In both parts of the trial, we plan to assess safety and immunogenicity for different combinations of varying concentrations of hMPV and RSV VLPs in older adults to identify a formulation to move forward into the planned Phase 2b clinical trial. In the dose-finding part of the trial, we plan to also evaluate concomitant administration of commercially available quadrivalent influenza vaccine.

IVX-A12 Phase 2 Extension Trial
We plan to monitor subjects from the Phase 2 dose-finding trial annually for 3-5 years following completion of the trial to assess duration of antibody persistence and long term safety.

IVX-A12 Phase 2b Proof of Concept Efficacy Trial
We intend to conduct a Phase 2b randomized observer-blind placebo-controlled global proof of concept efficacy trial in sites in both the southern hemisphere and northern hemisphere to allow for inclusion of two RSV and hMPV seasons over the course of the clinical trial. We expect that the trial will evaluate the formulation of IVX-A12 selected from the Phase 2 factorial and dose-finding trial. We expect that subjects will be randomized 1:1 to receive IVX-A12 or placebo.

Our planned trial objectives for the Phase 2b trial will include assessment of safety, immunogenicity, and efficacy against acute respiratory illness caused by either RSV or hMPV. We expect that the trial population will include adults aged 60 years or older and frail and at-risk elderly, including a subset of subjects over 85 years of age.
IVX-411—Our SARS-CoV-2 Vaccine Candidate

Overview of SARS-CoV-2

SARS-CoV-2 is a viral pathogen responsible for the coronavirus disease 2019 (COVID-19) global pandemic. As of May 6, 2021, there were over 154 million cases and over 3.2 million deaths from COVID-19 worldwide with over 570,000 deaths in the United States alone. Rates of serious morbidity and mortality from COVID-19 are disproportionately higher in older adults as compared to other age groups, likely due to age-induced immunosenescence. Although adults aged 65 or older constitute 16.5% of the United States population, over 80% of the deaths in the United States due to COVID-19 have been in this age group, as illustrated in the graph below.

![U.S. COVID-19 Deaths by Age](source: CDC)

Vaccines have been developed to combat this pandemic at an unprecedented pace and there are several SARS-CoV-2 vaccines that have been approved under emergency use authorization in the United States and several other countries. However, the rollout of vaccines has mostly been seen in developed countries with limited access to vaccines in low- and middle-income countries. In addition, development of the first wave of vaccines to fight the pandemic focused on speed rather than other critical attributes that are now important considerations for second wave vaccine candidates such as durability, potential to boost response, potential to address variant strains, ease of manufacturing and distribution, stability, and reactogenicity profile.

Coronaviruses are prone to mutation but the pace at which the SARS-CoV-2 virus has mutated is faster than many were anticipating. Some of these emerging strains appear to enhance transmission and pathogenicity, with complete replacement of the original pathogen by the emerging strains in some countries. Data has shown that some vaccines against the original SARS-CoV-2 virus strain are less immunogenic against some of the emerging variants, particularly the B.1.351 variant first identified in South Africa. Decreases in neutralizing titers against the B.1.351 strain appear to translate to lower efficacy in people who are infected with the B.1.351 virus. Several companies have initiated efforts to make either booster shots to supplement existing vaccines or new vaccines incorporating key mutations found in variant strains. However, it remains to be seen if initial exposure to the original strain through natural infection or vaccination has resulted in a focusing of the immune system on the original strain in such a way as to interfere with the development of an immune response against the new strain, a phenomenon called “original antigenic sin”.

We believe that there are still gaps in the SARS-CoV-2 vaccine landscape that need to be filled by new vaccine candidates. We believe that our vaccine technology and SARS-CoV-2 vaccine candidates have the potential to address these gaps:

- **Global access to effective vaccines against variant strains**: We believe that highly scalable vaccines will be needed in order to address the ongoing demand for billions of doses worldwide. We aim to rapidly develop vaccines targeting the prevalent strains to induce high nAb levels, which we believe will be able to more effectively protect against emerging variants than the first wave vaccines.
Reduced reactogenicity with repeat immunizations: Reactogenicity of the mRNA vaccines appears to increase with subsequent doses; we believe that in the long-term less reactogenic vaccines will be preferred, particularly if repetitive boosters are needed.

Ability to overcome “original antigenic sin”: We believe that new vaccines targeting specific key mutations in the variant SARS-CoV-2 virus strains may be less effective in individuals already exposed to the original SARS-CoV-2 strain through infection or vaccination. We further believe that variant vaccines developed using differentiated technologies, expressed viral proteins, or formulations with different adjuvants may be more successful in overcoming the original-strain immune-focused memory response present in these individuals.

Ability to confer long-lasting protection: The durability of currently marketed vaccines against SARS-CoV-2 is currently unknown, with developers suggesting a potential need for annual vaccinations. We believe this drives a need for vaccines with longer duration of response and the ability to be given as repetitive boosters over time.

**IVX-411 and IVX-421 — SARS-CoV-2 Vaccine Candidates**

IVX-411 is our lead SARS-CoV-2 vaccine candidate that incorporates the ACE2 RBD from the SARS-CoV-2 spike (S) protein of the original virus. The RBD is a fragment of the S protein that contains several known nAb epitopes, including those that prevent viral entry, and is responsible for ~90% of the nAb titers induced following SARS-CoV-2 infection. The RBD protein in IVX-411 is genetically fused to Component A and manufactured in mammalian cells. Component A-RBD is then combined with the same Component B used for our other programs to make the fully assembled VLPs, each of which incorporates 60 copies of the monomeric RBD antigen. We plan to assess IVX-411 in the clinic in both aqueous (non-adjuvanted) and adjuvanted formulations. We have chosen to move into clinical development with an oil-in-water adjuvant based on preclinical data supporting a robust nAb induction with this adjuvant type compared to other adjuvants in mice and nonhuman primates.

We have also initiated development of IVX-421, an additional SARS-CoV-2 vaccine candidate that incorporates an RBD protein with critical mutations found in the B.1.351 SARS-CoV-2 virus strain. We plan to assess in preclinical studies whether IVX-421 is able to induce strong immunogenicity against the original and B.1.351 strains. Pending clinical data on IVX-411 and preclinical data on IVX-421, we may incorporate IVX-421 into our clinical evaluation plan.

Our SARS-CoV-2 vaccine candidates IVX-411 and IVX-421 were designed to utilize the same VLP backbone as other candidates in our pipeline and to have the following advantages:

- **Robust immunogenicity and durability**: IVX-411 and IVX-421 incorporate the RBD of SARS-CoV-2 on the VLP and we believe this design has the potential to improve the functional antibody response to IVX-411 and IVX-421 as compared to many spike soluble antibody approaches. Preclinical data in mice and primates showed a robust nAb response to IVX-411 and precursor candidates.

- **Scalability and stability**: Our vaccine development process leverages highly scalable recombinant protein production with well-established cell line and fermentation technologies. In addition, our VLP vaccine candidates are highly thermostable and we have designed the final drug product to be stable at two to eight degrees Celsius. We believe the potential scalability and stability of our vaccine candidates will allow for a lower cost of goods, as well as ease of scaled-up manufacturing and distribution, compared to other vaccine approaches such as mRNA vaccines. We believe both scalability and thermostability are especially important for addressing the large-scale need for billions of doses worldwide.

- **Ability to boost**: As SARS-CoV-2 vaccines generated by other technologies continue to be administered prior to rollout of our vaccine, we believe the ability to boost and sustain immune response against the prevalent strains will become increasingly important.
  - Potential to boost multiple times with same vaccine candidate (homologous boosting): our candidates are protein-based VLPs, and we have not observed interference after multiple doses in several species. We believe that IVX-411 and IVX-421 have the potential to be administered multiple times without risk of interference that has historically been seen in other approaches, such as vector-based approaches.
Potential to boost response from alternative vaccine technologies (heterologous boosting): We believe that protein-based vaccines, which strongly enhance nAb levels, are ideal booster vaccines for other vaccine technologies such as adenoviral vector vaccines. In addition, we believe that to overcome original antigenic sin, the heterologous vaccine regimen used for boosting will need to be distinct from the initial vaccine regimen, particularly when attempting to boost a response to a variant virus strain. As our VLP vaccine candidates presenting the RBD subunit will be combined with an oil-in-water adjuvant, we believe they are distinct from most of the other vaccines on market and may be capable of boosting response from marketed heterologous vaccine regimens.

Our planned Phase 1/2 trial is designed to assess whether IVX-411 will be able to address what we believe are the remaining gaps in the SARS-CoV-2 vaccine landscape. The data from third-party vaccine efficacy studies conducted to date have shown a clear correlation between nAb levels and efficacy against severe disease. As such, we believe immunogenicity endpoints in early clinical trials are likely to be a good predictor of efficacy against severe disease. We believe our Phase 1/2 data will provide clear evidence regarding the immunogenicity and potential efficacy of IVX-411 in adults using a two-dose regimen.

BMGF supported work by the UW IPD to design and evaluate SARS-CoV-2 vaccine candidates. To enable access of the SARS-CoV-2 candidate(s) in low- and middle-income countries, BMGF has also provided funding to both SK Bioscience and us to further develop SARS-CoV-2 candidates through initial clinical trials. We received a grant from BMGF to enable development of our SARS-CoV-2 program through Phase 1 clinical testing and in return for our grant funds, we have agreed to access and price commitments specific for low- and middle-income countries. As a grantee and through our participation in COVAX, we get access to certain reagents, assays, and know-how that have helped accelerate our preclinical development.

We have a worldwide non-exclusive license to our SARS-CoV-2 candidates from the UW, with the exception of Korea, where we have no license. We have an option to convert our license to an exclusive license in North America and Europe with maintenance of our non-exclusive rights elsewhere. SK Bioscience also has a non-exclusive license to develop SARS-CoV-2 candidates based on the UW technology. We plan to broadly distribute our vaccine to provide equitable access globally, if successful in the clinic. However, we will not move forward with a monovalent vaccine candidate that we do not believe is likely to fill a gap in the rapidly evolving landscape. We are monitoring the landscape closely, and, pending the outcome of our planned Phase 1/2 trial we will determine whether to seek partnerships or non-dilutive financing to move our SARS-CoV-2 vaccine candidate(s) forward, combine one or more of our SARS-CoV-2 vaccine candidates with another candidate from our pipeline for a combination vaccine, or cease development of our SARS-CoV-2 vaccine candidates.
**IVX-411 Preclinical Results**

**Summary**

To date, IVX-411 and closely related precursor molecules have been tested in mice, rats, and nonhuman primates. In an experiment in BALB/c mice, intramuscular injection of a precursor to IVX-411 induced strong nAb responses after a single dose that were statistically superior to the RBD soluble antigen (p<0.001), a stabilized SARS-CoV-2 spike protein antigen (p<0.001) as well as human convalescent sera (p<0.01) used as a positive control, as shown in the figure below.

The immunogenicity generated in mice after vaccination with closely related precursor VLPs formulated with an oil-in-water adjuvant was durable, with nAb titers remaining as high 20-24 weeks following the boosting dose as they were two weeks post-boost. In addition, preclinical nonhuman primate data from assessment of a closely related precursor candidate with several different adjuvant formulations showed induction of robust nAb titers well in excess of titers seen in human convalescent sera, as well as protection from viral challenge.

**IVX-411 Safety Data**

We have completed a GLP toxicology repeat intramuscular dose study in rats to support regulatory submissions and initiation of our planned Phase 1/2 trials in Australia, United States, and Europe. The study evaluated both injection site and systemic reactions to IVX-411, including non-adjuvanted and adjuvanted formulations. No test article-related effects were seen following administration of IVX-411 on mortality, clinical observations, ophthalmic observations, body weights, food consumption, or body temperature. No observed effects were considered adverse.
IVX-411 Stability
We have observed IVX-411 to be highly thermostable in studies conducted to date. As shown in the figure below, IVX-411 stored at five degrees Celsius was observed to be very stable for up to four months, the longest timepoint tested to date, as measured by its relative potency assessed against a fresh reference standard.

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>TIME</th>
<th>RELATIVE POTENCY (ACE2 BINDING)</th>
</tr>
</thead>
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<td>T=0</td>
<td>103.8%</td>
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<tr>
<td>5°C</td>
<td>2 Months</td>
<td>94.7%</td>
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<td></td>
<td>3 Months</td>
<td>81.4%</td>
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<tr>
<td></td>
<td>4 Months</td>
<td>97.0%</td>
</tr>
</tbody>
</table>

SARS-CoV-2 Vaccine Candidates Clinical Development Plan
We expect to initiate our planned Phase 1/2 trial in . The trial is designed to evaluate the safety and immunogenicity of IVX-411 as primary and booster vaccines. There are two parts to the planned trial. Part 1 will be a Phase 1 assessment of primary vaccination with IVX-411 in adults 18-69 years of age who have not been previously exposed to SARS-CoV-2 (seronegative), and Part 2 will be a Phase 2 evaluation of IVX-411 booster vaccination in adults previously exposed through SARS-CoV-2 vaccination (seropositive). IVX-411 will be administered as two doses, either unadjuvanted or formulated with an oil-in-water adjuvant, administered 28 days apart.

Phase 1/2 Trial Design:

Part 1: Primary immunization with original strain RBD [IVX-411]
- Candidate: IVX-411 (VLP with original strain RBD antigen)
- Subjects: Adults (18-69 years of age); seronegative
- Regimen: 2 doses on Days 0 and 28
- Formulation: aqueous or formulated with oil-in-water adjuvant; 3 dose levels assessed

Part 2: Heterologous prime-boost with original strain RBD [IVX-411]
- Candidate: IVX-411 (VLP with original strain RBD antigen)
- Subjects: Adults (18-69 years of age); SARS-CoV-2 seropositive due to prior vaccination with approved SARS-CoV-2 vaccines
- Regimen: 2 doses on Days 0 and 28
- Formulation: aqueous or formulated with oil-in-water adjuvant; 3 dose levels assessed

The planned Phase 1/2 trial will be a randomized, placebo-controlled observer-blind dose-escalation study for safety and immunogenicity of two intramuscular doses of IVX-411. In Parts 1 and 2, six formulations of IVX-411 will be tested, including three dose levels each to be tested with and without adjuvant. The trial will be conducted in Australia and the regulatory package required for the commencement of the Phase 1 part of the trial will be submitted through the Australian Clinical Trial Notification procedure. We plan to dose the first subject in . Interim data from subjects receiving the first dose of IVX-411 in Part 2 are expected to be available in .

We expect that analysis of interim data from the Phase 1/2 trial, the state of the vaccine landscape for SARS-CoV-2, and the regulatory guidelines on clinical development of SARS-CoV-2 vaccines will guide our future development efforts for IVX-411 and IVX-421.

Our Early-Stage Programs
We are exploring several other viral pathogens and their respective market needs to potentially incorporate into VLP vaccine candidates that may be added to our pipeline. We review technical feasibility, demonstrated market need and potential and clinical program design and timelines with our outside scientific and commercial advisors and board of directors before selecting new vaccine programs for development.
Competition

Overview

Our industry is highly competitive and subject to rapid and significant regulatory and technological change. The current vaccine market is concentrated among a few key global biopharmaceutical companies including GlaxoSmithKline, Merck, Sanofi, Pfizer, and CSL Bering, which together account for the majority of vaccine sales globally. Other pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions are also active in the vaccine market given the continuing global need for both existing and new vaccines. The large markets for respiratory virus vaccines make them attractive targets for new vaccines and we face competition from numerous vaccine developers. While we believe that our technology, strategy, and our employee and consultant knowledge and experience can provide us with competitive advantages, many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we do.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, reactogenicity, safety, durability, convenience, and price, the number of other vaccines on the market in the specific target indications, the recommendation of vaccines by policy makers, the inclusion of vaccines on the national immunization schedules, and the availability of reimbursement from government and other third-party payors.

VLP-Based Vaccines

A number of pharmaceutical and biotechnology companies are developing VLP vaccine candidates. Many of these candidates are enveloped vaccines that require budding from the host cell membrane which can result in inclusion of host cell protein components leading to manufacturing complexities, such as additional purification needs. This includes, but is not limited to, VBI Vaccines, Medicago, and Artes Biotechnology. Other technologies incorporate the antigen to naturally occurring viral VLP scaffolds which may be less flexible and suitable for presentation of complex antigens; this includes, but is not limited to, SpyBiotech and VLP Therapeutics. We believe that our VLP technology allows for incorporation of a broad and complex array of viral antigens and targets as well as ease of manufacturing and scale-up, which may allow us to compete with other VLP vaccine candidates in development.

RSV and hMPV Vaccines for Older Adults

There is no vaccine approved for prevention of disease due to RSV infections or for prevention of disease due to hMPV infections in any population, including older adults. We are aware of companies currently developing vaccines against RSV for use in older adults, including GlaxoSmithKline, Pfizer, Bavarian Nordic, Janssen, Moderna, Codagenix, and Meissa. As far as we are aware, no company has a VLP-based RSV vaccine in clinical trials. In addition, as far as we are aware, there are no companies with a vaccine in clinical development against hMPV for use in older adults, nor are there any companies with a vaccine in clinical development against the combination of RSV and hMPV for use in older adults. However, Moderna is currently conducting an early-stage pediatric trial of an hMPV/parainfluenza combination mRNA vaccine candidate and may combine this with their RSV vaccine candidate and expand into the older adult population. We believe the induction of nAbs is key for both RSV and hMPV vaccine efficacy in older adults and that multivalent VLP display of the prefusion RSV and hMPV antigens on our VLP candidates will induce a stronger nAb response than other vaccine technologies.

SARS-CoV-2 Vaccines

We expect that, if approved, IVX-411 and IVX-421 will compete with any currently approved vaccines against SARS-CoV-2. There are numerous SARS-CoV-2 vaccines marketed under emergency use authorization, including, but not limited to, those manufactured by Moderna, Pfizer/BioNTech, AstraZeneca, and Janssen. In addition to the marketed vaccines, we are aware of numerous SARS-CoV-2 vaccines in clinical development, including VLP approaches. We believe that our vaccine candidates have the potential to be differentiated and we plan to monitor the market closely and evaluate our Phase 1/2 trial data to determine positioning of any future candidate of ours SARS-CoV-2 candidate in the rapidly evolving vaccine landscape.

Manufacturing

We do not own or operate, and currently have no plans to establish, any large-scale or current Good Manufacture Practices (cGMP) manufacturing facilities. To date, we have successfully worked in conjunction with our third-party manufacturers to complete development and cGMP manufacturing campaigns for key components, VLP drug
substance, and formulated drug product for all of our vaccine candidates. We are working with our existing manufacturers to scale up our manufacturing capabilities to support our clinical plans.

To date, we do not own or manufacture adjuvants and for vaccine candidates that we move forward as adjuvanted vaccines, we must rely on non-proprietary commercially available adjuvants or access to proprietary adjuvants through license or supply agreements with adjuvant manufacturers.

We believe our outsourced manufacturing strategy allows us to maintain a more efficient infrastructure by eliminating the need to for us to invest in our own manufacturing facilities, equipment, or personnel. This enables us to focus our time, expertise, and resources on the development of our vaccine candidates.

Commercialization Plan

Our current development plans focus on development and regulatory submissions in the United States and Europe. We currently have no sales, marketing, or commercial product distribution capabilities and have no experience as a company commercializing products. We intend to build the necessary infrastructure and capabilities over time for the United States and Europe, and potentially other regions, following further advancement of our product candidates. We may work in partnership with one or more pharmaceutical partners for certain vaccine candidates, for certain patient populations, or for certain geographies where we believe that others’ capabilities and resources may be ideally suited for development, commercialization, or distribution of our vaccine candidates.

Intellectual Property

We strive to protect the proprietary technology that we believe is important to our business, including seeking and maintaining rights in patents intended to cover our future vaccine candidates and compositions, their methods of use and processes for their manufacture and any other inventions that are commercially important to the development of our business. We seek to protect our proprietary position by, among other methods, filing or in-licensing U.S. and foreign patents and patent applications related to technology, inventions and improvements that are important to the development and implementation of our business. We also rely on our agreements with UW for intellectual property rights that are important or necessary for the development of our vaccine candidates. We also rely, in some circumstances, on trade secrets and know-how to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

For each vaccine candidate we develop and plan to commercialize, as a normal course of business, we intend to pursue composition and preventative use patents. We also seek patent protection with respect to novel methods of manufacture, formulations, or antigen combinations. We have sought and plan to continue to seek patent protection, either alone or jointly with our collaborators, as our license agreements may dictate.

Regardless of the coverage we seek under our existing patent applications, there is always a risk that an alteration to the product or process may provide sufficient basis for a competitor to avoid infringement claims. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued and courts can reinterpret patent scope after issuance. Moreover, many jurisdictions, including the United States, permit third parties to challenge issued patents in administrative proceedings, which may result in further narrowing or even cancellation of patent claims. Moreover, we cannot provide any assurance that any patents will be issued from our pending or any future applications or that any current or future issued patents will adequately protect our intellectual property.

In summary, our patent estate includes issued patents and patent applications with claims directed to our VLP platform and our vaccine candidates. On a worldwide basis, our patent estate includes three U.S. patents for our VLP platforms, with pending continuation applications; more than 15 patent applications jointly covering our RSV and hMPV products specifically; more than 10 patent applications covering other infectious disease targets; a non-exclusive license from UW to a Patent Cooperation Treaty (PCT) application covering coronavirus, with an option to convert to an exclusive license in North America and Europe; and an option to license international patent applications directed to influenza.

More specifically, we have exclusively licensed our main VLP icosahedral platform (as well as several alternative platforms) from UW. Two issued U.S. patents that will expire in 2035 and 2036 cover our platform as compositions of matter: polypeptides and the nucleic acids encoding them, respectively.
Further, a pending U.S. patent with an expected expiry of 2034, also licensed from UW, has claims directed to the computational methods used to develop these and other two-component, symmetrical nanoparticles / VLPs. A parent application has already issued as a U.S. patent with an adjusted expiration date in 2036; it claims several tetrahedral nanoparticle / VLP platforms as compositions of matter. These blocking patent rights are joined by an issued U.S. patent and its continuation application, having actual or expected expirations in 2038, that cover various alternative icosahedral nanoparticles. We intend to continue to work with UW on development of further nanoparticle platforms and may have the opportunity to license them as appropriate.

For our RSV product, composition-of-matter and method-of-use patent rights are provided by a patent family being prosecuted in the United States and Europe, as well as various jurisdictions in South America, Africa, and Asia. Any patents that ultimately issue from this patent family are expected to expire in 2038. UW’s inter-institutional agreements (IIA) with the Institute for Research in Biomedicine in Bellinzona, Switzerland conferred on UW the right to license this patent family to us.

The antigenic portion of our RSV product is protected by patent rights to stabilization of the antigen in a prefusion conformation, which are assigned to the U.S. Department of Health and Human Services (HHS), based on inventions made at the Vaccine Research Center of the National Institute for Allergy and Infectious Diseases (NIAID). We have non-exclusively licensed two issued U.S. patents directed to the compositions of matter, which will expire in 2034.

Our hMPV product is likewise protected by patent rights, in the same patent family as the RSV product, from UW. Therefore, patent exclusivity for an hMPV product is expected to extend to at least 2038. We further intend to pursue company-owned patent rights on improvements underlying its hMPV product, with such patent rights potentially extending the term of exclusivity until at least 2041.

HHS and the Institute for Research in Biomedicine in Bellinzona, Switzerland jointly own a U.S. patent on conformationally stabilized hMPV antigens, which we have non-exclusively licensed, subject to an IIA between HHS and the Institute for Research in Biomedicine. This patent expires in 2035. A continuation application and corresponding European patent application are currently pending.

Our coronavirus product is protected by patent rights from UW, including a pending PCT application, for which we have a non-exclusive license with an option for an exclusive license in North America and Europe.

We may choose to pursue vaccine products directed to influenza and have, therefore, obtained an option to non-exclusive patent licenses from UW and HHS.

Further patent protected related to other indications is provided by a family of more than 10 patent applications filed in the United States and foreign jurisdictions, which is also exclusively licensed in relevant fields from UW. Any patents that ultimately issue from this patent family are expected to expire in 2039.

We continue to prepare and file provisional patent applications directed to vaccine composition improvements, manufacturing methods, and formulations, as appropriate.

For more information regarding our license agreements with UW and the U.S. Department of Health and Human Services, please see “—Material Agreements.”

Generally, we submit patent applications directly with the USPTO as provisional patent applications. Provisional applications for patents were designed to provide a lower-cost first patent filing in the United States. Corresponding non-provisional patent applications must be filed not later than 12 months after the provisional application filing date. The corresponding non-provisional application benefits in that the priority date(s) of the patent application is/are the earlier provisional application filing date(s), and the patent term of the finally issued patent is calculated from the later non-provisional application filing date. This system allows us to obtain an early priority date, add material to the patent application(s) during the priority year, obtain a later start to the patent term and to delay prosecution costs, which may be useful in the event that we decide not to pursue examination in an application. While we intend to timely file non-provisional patent applications relating to our provisional patent applications, we cannot predict whether any such patent applications will result in the issuance of patents that provide us with any competitive advantage.
We file U.S. non-provisional applications and PCT applications that claim the benefit of the priority date of earlier filed provisional applications, when applicable. The PCT system allows a single application to be filed within 12 months of the original priority date of the patent application and to designate all of the 153 PCT member states in which national patent applications can later be pursued based on the international patent application filed under the PCT. The PCT searching authority performs a patentability search and issues a non-binding patentability opinion which can be used to evaluate the chances of success for the national applications in foreign countries prior to having to incur the filing fees. Although a PCT application does not issue as a patent, it allows the applicant to seek protection in any of the member states through national-phase applications.

At the end of the period of two and a half years from the first priority date of the patent application, separate patent applications can be pursued in any of the PCT member states either by direct national filing or, in some cases by filing through a regional patent organization, such as the European Patent Organization. The PCT system delays expenses, allows a limited evaluation of the chances of success for national/regional patent applications and enables substantial savings where applications are abandoned within the first two and a half years of filing.

For all patent applications, we determine claiming strategy on a case-by-case basis. Advice of counsel and our business model and needs are always considered. We file patents containing claims for protection of all useful applications of our proprietary technologies and any products, as well as all new applications and/or uses we discover for existing technologies and products, assuming these are strategically valuable. We continuously reassess the number and type of patent applications, as well as the pending patent claims to ensure that maximum coverage and value are obtained for our processes and compositions, given existing patent office rules and regulations. Further, claims may be modified during patent prosecution to meet our intellectual property and business needs.

We recognize that the ability to obtain patent protection and the degree of such protection depends on a number of factors, including the extent of the prior art, the novelty and non-obviousness of the invention and the ability to satisfy the enablement requirement of the patent laws. The patent positions of therapeutic companies like ours are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted or further altered even after patent issuance. Consequently, we may not obtain or maintain adequate patent protection for any of our future product candidates or for our platform technology. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

In addition to patents, we have filed for trademark registration at the USPTO for “Icosavax” and our company logo. Furthermore, we rely upon trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our commercial partners, collaborators, employees and consultants and invention assignment agreements with our employees. We also have confidentiality agreements or invention assignment agreements with our commercial partners and selected consultants. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Our commercial success will also depend in part on not infringing the proprietary rights of third parties. In addition, we have licensed, or expect to be able to license on commercially reasonable terms, rights under proprietary technologies of third parties to develop, manufacture and commercialize specific aspects of our future products and services. It is uncertain whether the issuance of any third party patent would require us to alter our development or commercial strategies, alter our processes, obtain licenses or cease certain activities. The expiration of patents or patent applications licensed from third parties or our breach of any license agreements or failure to obtain a license to proprietary rights that we may require to develop or commercialize our future technology may have a material adverse impact on us. If third parties prepare and file patent applications in the United States that also claim
technology to which we have rights, we may have to participate in interference proceedings in the USPTO to determine priority of invention.

For a more comprehensive discussion of the risks related to our intellectual property, please see “Risk Factors—Risks Related to Our Intellectual Property.

Material Agreements

Agreements with University of Washington

License Agreement with respect to RSV and Other Pathogens

In June 2018, we entered into a license agreement with UW as amended in July 2019 and November 2020 (UW License Agreement). Pursuant to the UW License Agreement, UW granted to us an exclusive, worldwide, royalty-bearing, sublicensable license under certain UW patents to make, use, sell, offer to sell, import, and otherwise exploit any product covered by the licensed patents, or licensed products, for the prophylactic and/or therapeutic treatment of RSV infection and five other infectious diseases. UW also granted us a non-exclusive license to use certain know-how related to the licensed patents. The licensed patents and know-how generally relate to computationally designed nanoparticles and vaccines based upon such designs, and relate to our proprietary two-component virus-like-particle technology.

The rights granted to us by UW are subject to certain rights of UW, the United States federal government, and the Howard Hughes Medical Institute (HHMI). UW retained rights under the licensed patents for research and educational purposes and for UW to comply with its obligations under applicable laws for federally funded inventions. The federal government has (i) a worldwide, nonexclusive, nontransferable, irrevocable, paid-up license to the licensed patents, (ii) march-in rights exercisable if public health crises so demand, and (iii) to the extent required by Title 35, Section 204 of the United States Code, a requirement that for any products licensed for use in the United States, that these products be substantially manufactured in the United States, because the inventions covered by the licensed patents arose in whole or in part from federal funding. HHMI has a paid-up, non-exclusive, sublicensable, irrevocable license for research use owing to the involvement of HHMI employees in developing the inventions of the licensed patents. HHMI's right to sublicense is limited to non-profit and governmental entities.

Owing to grant funding provided to UW by BMGF in connection with the licensed patents and know-how, UW granted a humanitarian license and made certain global access commitments with respect to the funded developments for three of the six pathogens (excluding RSV and two others) for humanitarian purposes. UW may require us to grant sublicenses to third parties to make such licensed developments available at an affordable price in developing countries, or if we do not offer such sublicenses on reasonable terms, UW may grant such licenses directly to third parties to enable affordable access in developing countries. Currently, our hMPV vaccine program is the only active program subject to this UW humanitarian license to BMGF.

We are obligated to use commercially reasonable efforts to diligently develop, manufacture, and commercialize vaccines incorporating the licensed products, and to achieve specified development and regulatory milestone events. If we are unable to meet our diligence obligations and cannot agree with UW to modify such obligations or do not cure by meeting such obligations, then UW may terminate the UW License Agreement in whole, or in part on a pathogen by pathogen basis.

In connection with the execution of the UW License Agreement, we issued 799,045 shares of our common stock to UW in August 2018. We are required to pay an annual license maintenance fee in the mid four figures. We are required to pay UW development and regulatory milestone payments up to an aggregate amount of three hundred and fifty thousand dollars for each of the six licensed product candidates upon reaching a certain net sales threshold. We are also required to pay UW a fixed low single digit percentage royalty on net sales of licensed products, subject to certain reductions if we are required to pay for third-party intellectual property rights in order to commercialize the licensed products, and after first commercial sale of a licensed product, we must meet a certain minimum royalty requirement in the low to mid figures range on an annual basis. If we sublicense our rights under the UW License Agreement, we are obligated to pay UW a mid-single digit to mid-double digit percentage of all sublicensing revenue received, depending on when we grant such sublicenses in relation to the
development stage of the licensed product, and adjusted for any development expenses and development or regulatory milestone payments already made.

The UW License Agreement will remain in effect until all licensed patent rights have terminated and all obligations due to UW have been fulfilled. The last-to-expire licensed patents, if issued, is expected to expire in 2041, subject to any adjustment or extension of patent term that may be available. UW can terminate the UW License Agreement if we breach or fail to perform one of our material duties under the UW License Agreement and our unable to remedy the default within an agreed upon time period that can be extended by UW. We can terminate the UW License Agreement at will with prior written notice to UW. We can also terminate certain of our licensed rights through an amendment to the UW License Agreement.

Option and License Agreement with Respect to SARS-CoV-2
In July 2020, we entered into an option and license agreement with UW, as amended in August 2020 and May 2021 (UW Option and License Agreement). Pursuant to the UW Option and License Agreement, UW granted to us a non-exclusive, worldwide (excluding South Korea), sublicensable license under certain UW patents to make, use, sell, offer to sell, import, or otherwise exploit any product covered under the licensed patents for the prophylactic and/or therapeutic treatments of SARS-CoV-2 infection. UW also granted us a non-exclusive, worldwide license to use certain know-how related to the licensed patents. The licensed patents and know-how generally relate to computationally designed nanoparticles and vaccines based upon such designs, and used in our proprietary two-component virus-like-particle technology.

We have the option to obtain an exclusive license under the UW Option and License Agreement for the United States, Canada, Mexico, and the countries of the European Patent Organization (including Switzerland, the United Kingdom, and Northern Ireland). We can exercise the option any time after we enter into, by a certain date, an agreement with a partner or sublicensee capable of supplying a specified minimum number of doses of the licensed product. We do not need to pay an option exercise fee. However, the option right, if exercised, is subject to certain rights of the United States federal government, UW, BMGF, and HHMI, as described above in connection with the UW License Agreement.

We are required to pay UW a low single digit percentage royalty on net sales of licensed products, subject to certain reductions if we are required to pay for third party intellectual property rights in order to commercialize the licensed products. However, we are not required to pay royalties on net sales of any licensed products under the UW Option and License Agreement if we are already required to pay royalties on such net sales under the UW License Agreement on, for example, a combination product.

Our diligence obligations under the UW Option and License Agreement and the parties' rights to terminate the UW Option and License Agreement are substantially the same as the analogous obligations and rights under the UW License Agreement. We incorporate the descriptions above by reference. The last-to-expire relevant patents under the UW Option and License Agreement, if issued, are expected to expire in 2041, subject to any adjustment or extension of patent term that may be available.

NIH Patent License Agreement
On June 28, 2018, we and the NIAID of the NIH entered into a non-exclusive license agreement for certain intellectual property rights and biological materials, as amended on September 10, 2018 and September 9, 2020 (NIH Agreement). Pursuant to the NIH Agreement, NIAID granted us a worldwide, nonexclusive, sublicensable license to certain patent rights, data, information, and materials directed to immunogens and antibodies and components and processes thereof relating to RSV and hMPV to allow us to make, use, sell, offer to sell, and import adjuvanted or non-adjuvanted vaccines that combine technology covered by the licensed patent rights with our proprietary protein-based nanoparticle technology, for the prevention, cure, amelioration or treatment of RSV and hMPV infections in humans, for administration alone or in combination with one or more other vaccines, and specifically excluding nucleic acid-based vaccines. NIAID also transferred to us certain biological materials relating to the foregoing for our development purposes.

Pursuant to the NIH agreement, we are required to use commercially reasonable efforts to develop the licensed products using the licensed processes to make the licensed products available to the United States public on reasonable terms, including by adhering to a commercial development plan and meeting specified benchmarks with
regards to specified deadlines for regulatory filings, initiation of clinical trials, and gaining regulatory approval for the licensed products. To the extent required by Title 35, Section 204 of the United States Code, we agreed to manufacture substantially in the United States all licensed products that are to be used or sold in the United States, to make reasonable quantities of the licensed product, if commercialized, available to patient assistance programs in the United States, to develop educational materials relating to the licensed product, and to supply reasonable quantities of the licensed products made by the licensed processes to NIAID for research, education and display purposes.

In consideration of the rights granted under the NIH Agreement, we paid NIAID a one-time upfront payment in the low six figures and amendment issue fees in the high five figures. We are required to make tiered, low single-digit percentage royalty payments on specified portions of annual net sales of licensed products outside of least developed countries, subject to certain specified reductions if we are required to pay royalties to third parties in order to commercialize the license products. We are required to make aggregate development and regulatory milestone payments of up to $1.15 million for the approval of the first indication for a licensed product, up to $650,000 for the approval of the second indication for a licensed product, up to $375,000 for the approval of the third indication for a licensed product, and $50,000 for each subsequent indication. We are further required to make sales milestone payments upon achieving certain aggregate net sales thresholds for all licensed products of up to $6.5 million in aggregate. We are also required to pay NIAID a mid-single to low double-digit percentage of any sublicensing revenue we receive, depending on when we grant such sublicense in relation to the development stage of the licensed product and the number of indications that we sublicense. Additionally, our payment obligations to NIAID are subject to annual minimums ranging from low-mid five figures to low six figures depending on the year and commercialization stage.

The NIH Agreement will expire upon the expiration of the last-to-expire licensed patent. NIAID may terminate the agreement for our uncured material breach, our insolvency or bankruptcy. Further, NIAID has the right to terminate or modify the NIH Agreement if (i) we do not execute the commercial development plan, (ii) we do not take effective steps to develop the licensed products to make them available for the public on reasonable terms, (iii) we do not achieve specified benchmarks, keep at least one licensed product or process available to the public after commercial use commences, (iv) to the extent required to do so under Title 35, Section 204 of the United States Code, we do not receive a U.S. manufacturing waiver from NIAID, NIH and do not justify a failure to manufacture the licensed products substantially in the United States, if intending to use in the United States (v) we do not reasonably satisfy the public use requirements specified under federal regulations, or (vi) we willfully make a false statement to or omit a material fact from NIAID in connection with the license application and progress reports. We have the unilateral right to terminate the NIH Agreement in its entirety or in any country with prior written notice to NIAID.

**Agreements with the Bill & Melinda Gates Foundation**

On September 24, 2020, we entered into a grant agreement (the Grant Agreement) with BMGF relating to our development of a COVID-19 vaccine. Under the Grant Agreement, BMGF provided funding to us to (i) assemble select components into a COVID-19 vaccine and perform related product fill and finish, (ii) develop regulatory submission-enabling data regarding the COVID-19 vaccine, and (iii) conduct a Phase 1 clinical trial to assess safety and immunogenicity of the COVID-19 vaccine in healthy adults and older adults, which we refer to collectively as the Funded Developments. Pursuant to the Grant Agreement, we granted BMGF a nonexclusive, perpetual, royalty-free, fully paid up, sublicensable humanitarian license to make, use, sell, offer to sell, import, distribute, or otherwise exploit the Funded Developments to provide people most in need within developing countries with access at an affordable price to the Funded Developments and to support the U.S. educational system and public libraries. We and BMGF may agree to modify or terminate the humanitarian license if we can demonstrate to BMGF’s satisfaction that global access can be best achieved with modifications or termination of the humanitarian license.

In connection with the Grant Agreement, we entered into a Global Access and Price Commitment Agreement (the GACA) with BMGF on February 17, 2021, which is incorporated into the Grant Agreement. Under the GACA, we agreed to certain global access and price commitments regarding the COVID-19 vaccine we develop with the funding under the Grant Agreement. In addition, we are required to use reasonable and diligent steps to publish results of the project in one or more peer reviewed journals or in a form available to the interested public. In the event we successfully complete any Phase 1 clinical trials, we are obligated to take reasonable steps to continue further development, manufacture, and/or distribution of such COVID-19 vaccine. If development and commercialization
continue beyond the Phase 1 trials, we will be required to pursue regulatory approvals and WHO prequalification of such COVID-19 vaccine. We also committed to price such COVID-19 vaccine no higher than a certain percentage rate above the cost of goods sold when selling such COVID-19 vaccine to public sector purchasers for use in select Global Alliance for Vaccines and Immunization (GAVI)-eligible and low to low-middle income countries. For a period commencing with the first supply of such COVID-19 vaccine to a public sector purchaser, we will also ensure annual volume commitments of such COVID-19 vaccine to these countries at a mutually agreed upon percentage of our total annual doses.

In the event we fulfill all the global access commitments and if through no fault of ours or our manufacturing or commercial partner(s) there is insufficient demand to sell an agreed upon percentage of our total doses of such COVID-19 vaccine, then the price and volume commitments will terminate beginning with the next annual period and we will be required to meet with BMGF for good faith discussions regarding the remaining annual periods. Conversely, if demand outstrips our supply capacities, then we will be required to have good faith discussions with BMGF about increased funding to meet the demand. If no agreement is reached, we will be required to provide adequate technology transfer and a non-exclusive license to BMGF to the Funded Developments and our background technology to allow for continued use of such COVID-19 vaccine in such eligible countries for charitable purposes.

If we are unable to continue development past Phase 1 trials, if requested by BMGF, we will be required to cooperate in good faith in making such Funded Developments and our background technology available to BMGF, assign an accompanying supply agreement to BMGF, and provide adequate technology transfer to continue development of such COVID-19 vaccine and enable its use in such eligible countries for charitable purposes.

The Grant Agreement will expire in March 2022 unless terminated earlier by BMGF. BMGF can terminate the Grant Agreement, or suspend, discontinue, or modify the grant payments if (i) BMGF is not reasonably satisfied with our progress on the funded project, (ii) there are significant changes to our leadership or other factors that BMGF believes may threaten the funded project’s success, (iii) we undergo a change of control, (vi) there is a change to our tax status, or (v) we fail to comply with the terms of the Grant Agreement.

**Government Regulation and Product Approval**

The FDA and other regulatory authorities at federal, state, and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring, and post-approval reporting of biologics such as those we are developing. We, along with third-party contractors, will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval or licensure of our product candidates. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

**U.S. Biologics Regulation**

In the United States, biological products, or biologics, such as vaccines are subject to regulation under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act, and other federal, state, local and foreign statutes and regulations. The process required by the FDA before biologics may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies performed in accordance with the FDA’s Good Laboratory Practice requirements (GLPs);
- submission to the FDA of an IND, which must become effective before clinical trials may begin;
- approval by an institutional review board (IRB) or ethics committee at each clinical site before the trial is commenced;
- performance of adequate and well-controlled human clinical trials to establish the safety, purity and potency of the proposed biologic product candidate for its intended use;
- preparation of and submission to the FDA of a biologics license application (BLA), after completion of all pivotal clinical trials and other necessary studies;
Prior to beginning the first clinical trial with a product candidate in the United States, we must submit an IND to the FDA. An IND is a request for authorization from the FDA to administer an investigational new drug to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical trials. The IND also includes results of animal and in vitro studies assessing the toxicology, pharmacokinetics, pharmacology, and pharmacodynamic characteristics of the product; chemistry, manufacturing, and controls information; and any available human data or literature to support the use of the investigational product. An IND must become effective before human clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises safety concerns or questions about the proposed clinical trial. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before the clinical trial can begin. Submission of an IND therefore may or may not result in FDA authorization to begin a clinical trial.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical study. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development and for any subsequent protocol amendments. Furthermore, an independent IRB for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site, and must monitor the study until completed. Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical trials and clinical study results to public registries, including clinicaltrials.gov.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- **Phase 1**—The investigational product is initially introduced into healthy human subjects or patients with the target disease or condition. These studies are designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness.
- **Phase 2**—The investigational product is administered to a limited patient population with a specified disease or condition to evaluate the preliminary efficacy, optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- **Phase 3**—The investigational product is administered to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval.
In some cases, the FDA may require, or companies may voluntarily pursue, additional clinical trials after a product is approved to gain more information about the product. These so-called Phase 4 studies may also be made a condition to approval of the BLA. Concurrent with clinical trials, companies may complete additional animal studies and develop additional information about the biological characteristics of the product candidate, and must finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

**BLA Submission and Review by the FDA**

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, preclinical studies and clinical trials are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. The BLA must include all relevant data available from preclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls, and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of the product, or from a number of alternative sources, including studies initiated by independent investigators. The submission of a BLA requires payment of a substantial application user fee to the FDA, unless a waiver or exemption applies.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the FDA accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. Once a BLA has been accepted for filing, the FDA's goal is to review standard applications within ten months after the filing date, or, if the application qualifies for priority review, six months after the FDA accepts the application for filing. In both standard and priority reviews, the review process may also be extended by FDA requests for additional information or clarification. The FDA reviews a BLA to determine, among other things, whether a product is safe, pure and potent and the facility in which it is manufactured, processed, packed or held meets standards designed to assure the product's continued safety, purity and potency. The FDA may also convene an advisory committee to provide clinical insight on application review questions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving a BLA, the FDA will typically inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. If the FDA determines that the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional testing or information. notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

After the FDA evaluates a BLA and conducts inspections of manufacturing facilities where the investigational product and/or its drug substance will be produced, the FDA may issue an approval letter or a Complete Response Letter (CRL). An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A CRL will describe all of the deficiencies that the FDA has identified in the BLA, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the CRL without first conducting required inspections, testing submitted product lots, and/or reviewing proposed labeling. In issuing the CRL, the FDA may recommend actions that the applicant might take to place the BLA in condition for approval, including requests for additional information or clarification. The FDA may delay or refuse approval of a BLA if applicable regulatory criteria are not satisfied, require additional testing or information and/or require post-marketing testing and surveillance to monitor safety or efficacy of a product.
If regulatory approval of a product is granted, such approval will be granted for particular indications and may entail limitations on the indicated uses for which such product may be marketed. For example, the FDA may approve the BLA with a Risk Evaluation and Mitigation Strategy (REMS) to ensure the benefits of the product outweigh its risks. A REMS is a safety strategy implemented to manage a known or potential serious risk associated with a product and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling or the development of adequate controls and specifications. Once approved, the FDA may withdraw the product approval if compliance with pre- and post-marketing requirements is not maintained or if problems occur after the product reaches the marketplace. The FDA may require one or more Phase 4 post-market studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization, and may limit further marketing of the product based on the results of these post-marketing studies.

**Expedited Development and Review Programs**

The FDA offers a number of expedited development and review programs for qualifying product candidates. For example, the fast track program is intended to expedite or facilitate the process for reviewing product candidates that are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast track designation applies to the combination of the product candidate and the specific indication for which it is being studied. The sponsor of a fast track product candidate has opportunities for more frequent interactions with the applicable FDA review team during product development and, once a BLA is submitted, the product candidate may be eligible for priority review. A fast track product candidate may also be eligible for rolling review, where the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

A product candidate intended to treat a serious or life-threatening disease or condition may also be eligible for breakthrough therapy designation to expedite its development and review. A product candidate can receive breakthrough therapy designation if preliminary clinical evidence indicates that the product candidate, alone or in combination with one or more other drugs or biologics, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The designation includes all of the fast track program features, as well as more intensive FDA interaction and guidance beginning as early as Phase 1 and an organizational commitment to expedite the development and review of the product candidate, including involvement of senior managers.

Any marketing application for a drug or biologic submitted to the FDA for approval, including a product candidate with a fast track designation and/or breakthrough therapy designation, may be eligible for other types of FDA programs intended to expedite the FDA review and approval process, such as priority review and accelerated approval. A BLA is eligible for priority review if the product candidate is designed to treat a serious or life-threatening disease or condition, and if approved, would provide a significant improvement in safety or effectiveness compared to available alternatives for such disease or condition. For original BLAs, priority review designation means the FDA's goal is to take action on the marketing application within six months of the 60-day filing date (as compared to ten months under standard review).

Additionally, product candidates studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive accelerated approval upon a determination that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of accelerated approval, the FDA will generally require the sponsor to perform adequate and well-controlled post-marketing clinical trials to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. Products receiving accelerated approval may be subject to expedited withdrawal procedures if the sponsor fails to conduct the required
post-marketing studies or if such studies fail to verify the predicted clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

Fast track designation, breakthrough therapy designation, priority review, and accelerated approval do not change the standards for approval but may expedite the development or approval process. Even if a product candidate qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Emergency Use Authorization
The Commissioner of the FDA, under delegated authority from the Secretary of HHS may, under certain circumstances in connection with a declared public health emergency, allow for the marketing of a product that does not otherwise comply with FDA regulations by issuing an EUA for such product. Before an EUA may be issued by HHS, the Secretary must declare an emergency based a determination that public health emergency exists that effects or has the significant potential to affect, national security, and that involves a specified biological, chemical, radiological, or nuclear agent or agents, or a specified disease or condition that may be attributable to such agent or agents. On February 4, 2020, the HHS Secretary determined that the novel coronavirus presented a public health emergency that has a significant potential to affect national security or the health and security of U.S. citizens living abroad and declared that circumstances existed justifying the authorization of emergency use biological products during the COVID-19 pandemic.

In order to be the subject of an EUA, the FDA Commissioner must conclude that, based on the totality of scientific evidence available, it is reasonable to believe that the product may be effective in diagnosing, treating, or preventing a disease attributable to the agents described above, that the product's potential benefits outweigh its potential risks and that there is no adequate, approved alternative to the product. Products subject to an EUA must still comply with the conditions of the EUA, including labeling and marketing requirements. Moreover, the authorization to market products under an EUA is limited to the period of time the public health emergency declaration is in effect.

U.S. Post-Approval Requirements
Biologics are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to record-keeping, reporting of adverse experiences, periodic reporting, product sampling and distribution, and advertising and promotion of the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual program fees for any marketed products. Biologic manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, which impose certain procedural and documentation requirements up. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting requirements. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

The FDA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters, or untitled letters;
- clinical holds on clinical trials;
refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
product seizure or detention, or refusal to permit the import or export of products;
consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs;
mandated modification of promotional materials and labeling and the issuance of corrective information;
the issuance of safety alerts, Dear Healthcare Provider letters, press releases and other communications containing warnings or other safety information about the product; or
injunctions or the imposition of civil or criminal penalties.

The FDA closely regulates the marketing, labeling, advertising and promotion of biologics. A company can make only those claims relating to safety and efficacy, purity and potency that are approved by the FDA and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer’s communications on the subject of off-label use of their products.

Biosimilars and Reference Product Exclusivity

The Affordable Care Act, signed into law in 2010, includes a subtitle called the Biologics Price Competition and Innovation Act (BPCIA) which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being worked out by the FDA.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the licensure of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing that applicant’s own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed “interchangeable” by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued “Written Request” for such a study.
Other U.S. Regulatory Requirements

In addition to FDA regulation of pharmaceutical products, pharmaceutical companies are also subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business and may constrain the financial arrangements and relationships through which we research, as well as sell, market and distribute any products for which we obtain marketing authorization. Such laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, data privacy and security, and transparency laws and regulations related to drug pricing and payments and other transfers of value made to physicians and other healthcare providers. If their operations are found to be in violation of any of such laws or any other governmental regulations that apply, they may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, the curtailment or restructuring of operations, integrity oversight and reporting obligations, exclusion from participation in federal and state healthcare programs and imprisonment.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidate for which we may seek regulatory approval. Sales in the United States will depend, in part, on the availability of sufficient coverage and adequate reimbursement from third-party payors, which include government health programs such as Medicare, Medicaid, TRICARE and the Veterans Administration, as well as managed care organizations and private health insurers. Prices at which we or our customers seek reimbursement for our product candidates can be subject to challenge, reduction or denial by third-party payors.

Certain ACA marketplace and other private payor plans are required to include coverage for certain preventative services, including vaccinations recommended by the ACIP without cost share obligations (i.e., co-payments, deductibles or co-insurance) for plan members. Children through 18 years of age without other health insurance coverage may be eligible to receive such vaccinations free-of-charge through the CDC's Vaccines for Children program. For Medicare beneficiaries, vaccines may be covered under either the Part B program or Part D depending on several criteria, including the type of vaccine and the beneficiary's coverage eligibility. If our vaccine candidates, once approved, are covered only under the Part D program, physicians may be less willing to use our products because of the claims adjudication costs and time related to the claims adjudication process and collection of co-payments associated with the Part D program.

The process for determining whether a third-party payor will provide coverage for a product is typically separate from the process for setting the reimbursement rate that the payor will pay for the product. In the United States, there is no uniform policy among payors for coverage or reimbursement. Decisions regarding whether to cover any of a product, the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage and reimbursement policies, but also have their own methods and approval processes. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that can require manufacturers to provide scientific and clinical support for the use of a product to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. Third-party payors may not consider our product candidates to be medically necessary or cost-effective compared to other available therapies. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product that receives approval.

In some foreign countries, the proposed pricing for a product candidate must be approved before it may be lawfully marketed. The requirements governing product pricing vary widely from country to country. For example, in the European Union (EU) pricing and reimbursement of pharmaceutical products are regulated at a national level under the individual EU member states' social security systems. Some foreign countries provide options to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and can control the prices and reimbursement levels of medicinal products for human use. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been
agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. A country may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for products will allow favorable reimbursement and pricing arrangements for any of our product candidates. Even if approved for reimbursement, historically, product candidates launched in some foreign countries, such as some countries in the EU, do not follow price structures of the United States and prices generally tend to be significantly lower.

**Healthcare Reform**

In the United States, there have been, and continue to be, legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of product candidates, restrict or regulate post-approval activities, and affect the profitable sale of product candidates, and similar healthcare laws and regulations exist in the EU and other jurisdictions. Among policy makers and payors in the United States, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

By way of example, in March 2010, the Patient Protection and Affordable Care Act (the ACA) was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly affected the pharmaceutical industry. The ACA, among other things, increased the minimum level of Medicaid rebates payable by manufacturers of brand name drugs from 15.1% to 23.1% of the average manufacturer price; required collection of rebates for drugs paid by Medicaid managed care organizations; required manufacturers to participate in a coverage gap discount program, in which manufacturers must agree to offer point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; imposed a non-deductible annual fee on pharmaceutical manufacturers or importers who sell certain “branded prescription drugs” to specified federal government programs; implemented a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected; expanded eligibility criteria for Medicaid programs; creates a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at the CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial, executive and political challenges to certain aspects of the ACA. The U.S. Supreme Court is currently reviewing the constitutionality of the ACA in its. Although the Supreme Court has not yet ruled, President Biden issued an executive order to initiate a special enrollment period from February 15, 2021 through August 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The executive order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how the Supreme Court ruling, other such litigation, and the healthcare reform measures of the Biden administration will impact the ACA.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through December 31, 2021, unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted
federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. The likelihood of success of these and other reforms initiated by the former Trump administration is unclear, particularly in light of the new Biden administration.

Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine which drugs and suppliers will be included in their healthcare programs. Furthermore, there has been increased interest by third party payors and governmental authorities in reference pricing systems and publication of discounts and list prices.

**Foreign Regulation**

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our product candidates. Because biologically sourced raw materials are subject to unique contamination risks, their use may be restricted in some countries.

Whether or not we obtain FDA approval for a product candidate, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product candidates in those countries. The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. Failure to comply with applicable foreign regulatory requirements, may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

**Preclinical Studies and Clinical Trials**

Similar to the United States, the various phases of preclinical and clinical research in the EU are subject to significant regulatory controls.

Preclinical studies are performed to demonstrate the health or environmental safety of new chemical or biological substances. Preclinical studies must be conducted in compliance with the principles of good laboratory practice (GLP) as set forth in EU Directive 2004/10/EC. In particular, preclinical studies, both in vitro and in vivo, must be planned, performed, monitored, recorded, reported and archived in accordance with the GLP principles, which define a set of rules and criteria for a quality system for the organizational process and the conditions for preclinical studies. These GLP standards reflect the Organization for Economic Co-operation and Development requirements.

Clinical trials of medicinal products in the EU must be conducted in accordance with EU and national regulations and the International Conference on Harmonization (ICH), guidelines on good clinical practices (GCP) as well as the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. If the sponsor of the clinical trial is not established within the EU, it must appoint an EU entity to act as its legal representative. The sponsor must take out a clinical trial insurance policy, and in most EU countries, the sponsor is liable to provide ‘no fault’ compensation to any study subject injured in the clinical trial.

Certain countries and jurisdictions outside of the United States, including the EU, have a similar process that requires the submission of a clinical study application much like the IND prior to the commencement of human clinical trials. A CTA must be submitted to each country’s national health authority and an independent ethics committee, much like the FDA and the IRB, respectively. Once the CTA is approved by the national health authority and the ethics committee has granted a positive opinion in relation to the conduct of the trial in the relevant member state(s), in accordance with a country’s requirements, clinical study development may proceed.

The CTA must include, among other things, a copy of the trial protocol and an investigational medicinal product dossier containing information about the manufacture and quality of the medicinal product under investigation. Currently, CTAs must be submitted to the competent authority in each EU member state in which the trial will be conducted. Under the new Regulation on Clinical Trials, which is currently expected to become applicable by early 2022, there will be a centralized application procedure where one national authority takes the lead in reviewing the
application and the other national authorities have only limited involvement. Any substantial changes to the trial protocol or other information submitted with the CTA must be notified to or approved by the relevant competent authorities and ethics committees. Medicines used in clinical trials must be manufactured in accordance with good manufacturing practice (GMP). Other national and EU-wide regulatory requirements may also apply.

**Marketing Authorizations**

In the EU, medicinal products can only be placed on the market after obtaining a marketing authorization (MA). To obtain regulatory approval of an investigational biological product under EU regulatory systems, we must submit a marketing authorization application (MAA). The application used to file the BLA in the United States is similar to that required in the EU, with the exception of, among other things, country specific document requirements. The process for doing this depends, among other things, on the nature of the medicinal product.

The centralized procedure results in a single MA, issued by the European Commission, based on the opinion of the European Medicines Agency's (EMA) Committee for Human Medicinal Products (CHMP) which is valid across the entire territory of the EU. The centralized procedure is compulsory for human medicines that are: (i) derived from biotechnology processes, such as genetic engineering, (ii) contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative diseases, autoimmune and other immune dysfunctions and viral diseases, (iii) designated orphan medicines and (iv) ATMPs, such as gene therapy, somatic cell therapy or tissue-engineered medicines. The centralized procedure may at the request of the applicant also be used in certain other cases.

National MAs, which are issued by the competent authorities of the EU member states and only cover their respective territory, are available for products not falling within the mandatory scope of the centralized procedure. Where a product has already been authorized for marketing in an EU member state, this national MA can be recognized in another member state through the mutual recognition procedure. If the product has not received a national MA in any member state at the time of application, it can be approved simultaneously in various member states through the decentralized procedure. Under the decentralized procedure an identical dossier is submitted to the national competent authority of each of the member states in which the MA is sought, one of which is selected by the applicant as the Reference member state.

Under the centralized procedure, the maximum timeframe for the evaluation of a MAA by the EMA is 210 days. In exceptional cases, the CHMP might perform an accelerated review of a MAA in no more than 150 days (not including clock stops). Innovative products that target an unmet medical need and are expected to be of major public health interest may be eligible for a number of expedited development and review programs, such as the PRIME scheme, which provides incentives similar to the breakthrough therapy designation in the U.S. PRIME is a voluntary scheme aimed at enhancing the EMA's support for the development of medicines that target unmet medical needs. It is based on increased interaction and early dialogue with companies developing promising medicines, to optimize their product development plans and speed up their evaluation to help them reach patients earlier. Product developers that benefit from PRIME designation can expect to be eligible for accelerated assessment but this is not guaranteed. The benefits of a PRIME designation include the appointment of a CHMP rapporteur before submission of a MAA, early dialogue and scientific advice at key development milestones, and the potential to qualify products for accelerated review earlier in the application process. Innovative medicines fulfilling a medical need may also benefit from different types of fast track approvals, such as a conditional MA or a MA under exceptional circumstances granted on the basis of less comprehensive clinical data than normally required (respectively in the likelihood that the sponsor will provide such data within an agreed timeframe or when comprehensive data cannot be obtained even after authorization).

Classical MAs have an initial duration of five years. After these five years, the authorization may be renewed for an unlimited period on the basis of a reevaluation of the risk-benefit balance.

**Data and Marketing Exclusivity**

The EU also provides opportunities for market exclusivity. For example, in the EU, upon receiving MA, new chemical entities generally receive eight years of data exclusivity and an additional two years of market exclusivity. If granted, data exclusivity prevents regulatory authorities in the EU from referencing the innovator’s data to assess a generic or biosimilar application. During the additional two year period of market exclusivity, a generic/biosimilar MA can be submitted, and the innovator’s data may be referenced, but no generic/biosimilar product can be marketed until the...
expiration of the market exclusivity. The overall ten-year market exclusivity period may be extended to a maximum of eleven years if, during the first eight years a new therapeutic indication with significant clinical benefit over existing therapies is approved. However, there is no guarantee that a product will be considered by the EU's regulatory authorities to be a new chemical entity, and products may not qualify for data exclusivity.

There is a special regime for biosimilars, or biological medicinal products that are similar to a reference medicinal product but that do not meet the definition of a generic medicinal product, for example, because of differences in raw materials or manufacturing processes. For such products, the results of appropriate preclinical or clinical trials must be provided, and guidelines from the EMA detail the type of quantity of supplementary data to be provided for different types of biological product. There are no such guidelines for complex biological products, such as gene or cell therapy medicinal products, and so it is unlikely that biosimilars of those products will currently be approved in the EU. However, guidance from the EMA states that they will be considered in the future in light of the scientific knowledge and regulatory experience gained at the time.

Foreign Post-Approval Requirements

Similar to the United States, both MA holders and manufacturers of medicinal products are subject to comprehensive regulatory oversight by the EMA, the European Commission and/or the competent regulatory authorities of the member states. The holder of a MA must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance who is responsible for oversight of that system. Key obligations include expedited reporting of suspected serious adverse reactions and submission of periodic safety update reports (PSURs).

All new MAAs must include a risk management plan (RMP) describing the risk management system that the company will put in place and documenting measures to prevent or minimize the risks associated with the product. The regulatory authorities may also impose specific obligations as a condition of the MA. Such risk-minimization measures or post-authorization obligations may include additional safety monitoring, more frequent submission of PSURs, or the conduct of additional clinical trials or post-authorization safety studies.

The advertising and promotion of medicinal products is also subject to laws concerning promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the EU. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each member state and can differ from one country to another.

The aforementioned EU rules are generally applicable in the European Economic Area (EEA) which consists of the 27 EU member states plus Norway, Liechtenstein and Iceland.

Failure to comply with EU and member state laws that apply to the conduct of clinical trials, manufacturing approval, MA of medicinal products and marketing of such products, both before and after grant of the MA, manufacturing of pharmaceutical products, statutory health insurance, bribery and anti-corruption or with other applicable regulatory requirements may result in administrative, civil or criminal penalties. These penalties could include delays or refusal to authorize the conduct of clinical trials, or to grant MA, product withdrawals and recalls, product seizures, suspension, withdrawal or variation of the MA, total or partial suspension of production, distribution, manufacturing or clinical trials, operating restrictions, injunctions, suspension of licenses, fines and criminal penalties.

Privacy and Data Protection Laws

We are also subject to laws and regulations in non-U.S. countries covering data privacy and the protection of health-related and other personal information. EU member states and other jurisdictions have adopted data protection laws and regulations, which impose significant compliance obligations. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure, processing and security of personal information that identifies or may be used to identify an individual, such as names, contact information, and sensitive personal data such as health data. These laws and regulations are subject to frequent revisions and differing interpretations, and have generally become more stringent over time.
As of May 25, 2018, Regulation 2016/676, known as the General Data Protection Regulation (GDPR) replaced the Data Protection Directive with respect to the processing of personal data of individuals within the EEA. The GDPR imposes many requirements for controllers and processors of personal data, including, for example, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals and a strengthened individual data rights regime, shortened timelines for data breach notifications, limitations on retention and secondary use of information, increased requirements pertaining to health data and pseudonymised (i.e., key-coded) data (including data from clinical trials) and additional obligations when we contract third-party processors in connection with the processing of the personal data. The GDPR is directly applicable in each member state and is extended to the EEA. However the GDPR allows EEA countries to make additional laws and regulations further limiting notably the processing of genetic, biometric or health data. Failure to comply with the requirements of GDPR may result in fines of up to €20,000,000 or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher, and other administrative penalties. Among other requirements, the GDPR regulates transfers of personal data subject to the GDPR to third countries that have not been found to provide adequate protection to such personal data, including the United States, and the efficacy and longevity of current transfer mechanisms between the EU and the United States remains uncertain. For example, in 2016, the EU and United States agreed to a transfer framework for data transferred from the EU to the United States, called the Privacy Shield, but the Privacy Shield was invalidated in July 2020 by the Court of Justice of the European Union (CJUE). While the CJEU upheld the adequacy of the standard contractual clauses (a standard form of contract approved by the European Commission as an adequate personal data transfer mechanism, and potential alternative to the Privacy Shield), it made clear that reliance on them alone may not necessarily be sufficient in all circumstances. Use of the standard contractual clauses must now be assessed on a case-by-case basis taking into account the legal regime applicable in the destination country, in particular applicable surveillance laws and rights of individuals and additional measures and/or contractual provisions may need to be put in place, however, the nature of these additional measures is currently uncertain.

Legal Proceedings
From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not currently a party to any material proceedings. Regardless of outcome, such proceedings or claims can have an adverse impact on us because of defense and settlement costs, diversion of resources and other factors, and there can be no assurances that favorable outcomes will be obtained.

Facilities
We lease space for our principal offices and laboratory in Seattle, Washington, on an annual basis. We believe that our existing facilities will be sufficient for our needs for the foreseeable future.

Employees
As of April 30, 2021, we had 18 full-time employees and no part-time employees. Of these employees, eight hold Ph.D. or M.D. degrees and 13 are engaged in research and development. Ten of our employees are located in Seattle, Washington and the remainder are located in the United States and work remotely. Our employees are not represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.
Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers and directors as of March 31, 2021.

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE</th>
<th>POSITION</th>
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<tbody>
<tr>
<td><strong>Executive Officers</strong></td>
<td></td>
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</tr>
<tr>
<td>Adam Simpson</td>
<td>46</td>
<td>Chief Executive Officer and Director</td>
</tr>
<tr>
<td>Douglas Holtzman, Ph.D.</td>
<td>57</td>
<td>Chief Scientific Officer</td>
</tr>
<tr>
<td>Niranjjan Kanesa-thasan, M.D., M.T.M.H.</td>
<td>61</td>
<td>Chief Medical Officer</td>
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<tr>
<td>Cassia Cearley, Ph.D.</td>
<td>39</td>
<td>Chief Business Officer</td>
</tr>
<tr>
<td>Charles Richardson, Ph.D.</td>
<td>69</td>
<td>Senior Vice President, Technical Operations</td>
</tr>
<tr>
<td><strong>Non-Employee Directors</strong></td>
<td></td>
<td></td>
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<tr>
<td>Tadadatak Yamada, M.D.</td>
<td>75</td>
<td>Chairman</td>
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<tr>
<td>Elisha P. Gould III</td>
<td>64</td>
<td>Director</td>
</tr>
<tr>
<td>Jason Haller, Ph.D.</td>
<td>39</td>
<td>Director</td>
</tr>
<tr>
<td>Peter Kolchinsky, Ph.D.</td>
<td>44</td>
<td>Director</td>
</tr>
<tr>
<td>Mark McDade</td>
<td>66</td>
<td>Director</td>
</tr>
<tr>
<td>Eric Moessinger</td>
<td>39</td>
<td>Director</td>
</tr>
</tbody>
</table>

(1) Member of the compensation committee  
(2) Member of the audit committee  
(3) Member of the nominating and corporate governance committee

Executive Officers

Adam Simpson has served as our President and Chief Executive Officer and on our board of directors since our inception in December 2017. Since 2012, Mr. Simpson has also served as the President of Dorado Ventures, LLC, a consulting entity, where he has provided business development and company formation services for a variety of entities in the life science industry. Prior to joining Icosavax, Mr. Simpson served as President and Chief Executive Officer and on the board of directors of PvP Biologics, Inc., a private company developing therapeutics for the treatment of celiac disease, from October 2016 until its acquisition by Takeda Pharmaceuticals U.S.A., Inc. in February 2020, having previously served as President and Chief Operating Officer from commencement of the company's operations in May 2016. Prior to PvP Biologics, Mr. Simpson provided consulting services to Cypher Genomics, Inc., a private company focused on biomarker development to facilitate drug development, commencing in 2013, and ultimately served as President and Chief Operating Officer commencing in 2015 until its acquisition by Human Longevity, Inc. later in 2015. Prior to Cypher Genomics, Mr. Simpson was a cofounder and served as Chief Business Officer of Meritage Pharma, Inc., a private company developing treatments for upper gastrointestinal disorders, from its inception in 2008 until its stage sale to Shire Pharmaceuticals LLC in 2012. Prior to Meritage Pharma, Mr. Simpson served as General Counsel at Verus Pharmaceuticals, Inc., a private company focused on treatments for asthma and anaphylaxis, from 2005 until the sale of its assets to AstraZeneca and Shionogi in 2008. Mr. Simpson began his career as an attorney for the law firm Latham & Watkins LLP focusing on the life sciences industry, where he worked from 1999 to 2005. Mr. Simpson holds a B.S. in biochemistry from the University of California, San Diego and a J.D. from the University of Minnesota Law School. Mr. Simpson's extensive operational and financial experience in the biopharmaceutical industry contributed to our board of directors' conclusion that he should serve as a director of our company.

Douglas Holtzman, Ph.D. has served as our Chief Scientific Officer since August 2019. In July 2016, Dr. Holtzman founded Palindrome Bioconsulting, through which he provided consulting services to clients including Icosavax until August 2019. Prior to Palindrome, Dr. Holtzman served as Vice President, Discovery at Takeda Pharmaceuticals U.S.A., Inc. from 2012 to July 2016, where he focused on dengue and norovirus vaccine candidates and was a member of the management committee that globalized Takeda Pharmaceuticals' Japan-based vaccines business. Prior to Takeda Pharmaceuticals, Dr. Holtzman served as Deputy Director, Childhood Pneumonia at the Bill &

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Melinda Gates Foundation, a non-profit focused on public health initiatives, from 2004 to 2012. Dr. Holtzman holds a Ph.D. in molecular and cell biology from the University of California, Berkeley, an MPH from Harvard University's T.H. Chan School of Public Health, and a B.S. in Biology from Tufts University.

Niranjan Kanesa-thasan, M.D., M.T.M.H has served as our Chief Medical Officer since September 2018. Prior to Icosavax, in November 2017, Dr. Kanesa-thasan founded Kanesa, LLC, through which he provides clinical consulting to clients, including Icosavax from November 2017 to August 2019. Prior to founding Kanesa, Dr. Kanesa-thasan served as Vice President, Clinical Research & Development, for GlaxoSmithKline Vaccines’ U.S. Research & Development Center from 2015 to August 2017. Prior to GlaxoSmithKline Vaccines, from 2007 to 2015 Dr. Kanesa-thasan served in several roles at Novartis Vaccines and Diagnostics, including Chief Medical Officer North America (VP). Prior to Novartis, Dr. Kanesa-thasan served as a research physician in the U.S. Army Medical Corps from 1991 to 2003, ending his service as a Lieutenant Colonel. Dr. Kanesa-thasan holds an M.D. from the Johns Hopkins School of Medicine, a M.T.M.H. from the Uniformed Services University of the Health Sciences, and a B.A. in human biology from Johns Hopkins University. Dr. Kanesa-thasan completed his residency and chief residency in pediatrics at Case Western Reserve University, and a fellowship in pediatric infectious disease and geographic medicine at University Hospitals of Cleveland. Dr. Kanesa-thasan is a Fellow of the Infectious Diseases Society of America and of the American Society of Tropical Medicine and Hygiene.

Cassia Cearley, Ph.D. has served as our Chief Business Officer since February 2021, and previously served as our Senior Vice President, Operations from December 2019 to February 2021. Prior to Icosavax, Dr. Cearley served in roles including Vice President of Research and Senior Director Corporate Strategy and Alliance Management for Aptinyx Inc., a public therapeutics company, from 2015 to 2019. Prior to Aptinyx, Dr. Cearley served as Senior Director, Corporate Development at Naurex, Inc., a private therapeutics company from 2014 until its acquisition by Allergan plc in 2015. Prior to Naurex, Dr. Cearley served as Director of Portfolio Management at Takeda Pharmaceuticals U.S.A. from 2013 to 2014, and before that as an engagement manager at L.E.K. Consulting from 2007 to 2013. Dr. Cearley holds a Ph.D. in neuroscience from the University of Pennsylvania and a B.S. in neuroscience from the Washington State University Honors College.

Charles Richardson, Ph.D. has served as our Senior Vice President, Technical Operations since August 2019. Since 2015, Dr. Richardson has served as a private consultant with PharmorosConsulting, LLC with global clients including Takeda vaccines and Icosavax. Dr. Richardson served as Vice President, Head of Global Chemistry, Manufacturing, and Controls (CMC) for Takeda Vaccines, with responsibility for CMC development and clinical manufacture of Takeda vaccines globally, from 2012 to 2015. Prior to Takeda, Dr. Richardson served as Executive Vice President, Research and Development for LigoCyte Pharmaceuticals, Inc., a private biopharmaceutical company focused on vaccines, where he focused on VLP vaccines against infectious diseases, from 2003 until its acquisition by Takeda in 2015. Prior to LigoCyte, Dr. Richardson served as Vice President and Site Manager for Corixa Corporation, a private immunotherapeutics company acquired by GlaxoSmithKline plc, with responsibilities for adjuvant discovery and development, corporate manufacturing, and quality systems, from 1999 to 2003. Dr. Richardson holds a B.S. in chemistry from Carnegie Mellon University and a Ph.D. in biological chemistry from the University of Cincinnati College of Medicine.

Non-Employee Directors

Tadataka Yamada, M.D. has served as the Chairman of our board of directors since August 2019. Dr. Yamada has served as a Venture Partner at Frazier since June 2015. From June 2011 to June 2015, Dr. Yamada served as the Chief Medical and Scientific Officer and as a member of the board of directors of Takeda. From 2011 to March 2021, Dr. Yamada served as a member of the board of directors of Agilent Technologies, a global scientific instrument manufacturing and clinical diagnostics company listed on the New York Stock Exchange. From June 2016 to October 2019, Dr. Yamada served on the board of directors of CSL Limited, a biotechnology company that is publicly traded on the Australian Securities Exchange, and since June 2017, he has served as Chairman of the board of directors of Passage Bio, a public genetic medicines company. Since March 2019, Dr. Yamada has served as Chairman of the board of directors of Phathom Pharmaceuticals, Inc., a public biopharmaceutical company. Since June 2019, he has served as a member of the board of directors of Athira Pharma, a public neurologic disease company, and he has served as Athira’s chair since January 2020. Since June 2018, Dr. Yamada has served as Chairman of the board of directors of Prometheus Biosciences, Inc., a public biotechnology company. Dr. Yamada previously served as President of the Global Health Program of the Bill & Melinda Gates Foundation from June 2006.
to June 2011. From 2000 to 2006, Dr. Yamada was Chairman of Research and Development and a member of the board of directors of GlaxoSmithKline Inc. and prior to that, he held research and development positions at SmithKline Beecham. Prior to joining SmithKline Beecham, Dr. Yamada was Chairman of the Department of Internal Medicine at the University of Michigan Medical School and Physician-in-Chief of the University of Michigan Medical Center. Dr. Yamada serves as chair of the board of directors at the Clinton Health Access Initiative and a member of the National Academy of Medicine. He is also a Fellow of the Imperial College of Medicine, a Master of the American College of Physicians, a Fellow of the Royal College of Physicians, a Member of the American Academy of Arts and Sciences and a past-President of the American Gastroenterological Association and the Association of American Physicians. Dr. Yamada received his M.D. from New York University School of Medicine and a B.A. in history from Stanford University. Dr. Yamada’s extensive experience in vaccine development as well as his service as a director or officer of various biotechnology and biopharmaceutical companies contributed to our board of directors’ conclusion that he should serve as the chair of our board of directors.

Elisha P. Gould III has served on our board of directors since August 2019. Mr. Gould is currently a partner at Adams Street Partners, LLC, a global private equity firm, and has been employed by Adams Street Partners or its predecessor organizations since 1994. Mr. Gould has served on the boards of directors of Aptinyx, Inc., a public biopharmaceutical company, since 2015, and Corvus Pharmaceuticals, Inc., a public biopharmaceutical company, since 2014, and currently serves on the boards of directors of several private biopharmaceutical and/or healthcare companies. Mr. Gould received an A.B. in engineering science from Dartmouth College and an M.B.A. from the Stanford University Graduate School of Business. Mr. Gould’s extensive financial experience in the biopharmaceutical industry contributed to our board of directors’ conclusion that he should serve as a director of our company.

Jason Hafler, Ph.D. has served on our board of directors since August 2019. Since November 2019, Dr. Hafler has served as Managing Director of Sanofi Ventures, the corporate venture capital arm of Sanofi S.A., after serving in other roles at Sanofi Ventures beginning in 2014. Prior to Sanofi, from 2012 to 2014, Dr. Hafler served as Director of Corporate Development at RaNA Therapeutics LLC, which was cofounded by his previous firm, Atlas Venture. At Atlas, Dr. Hafler served as an associate in its Life Sciences Group from 2010 to 2012. Prior to Atlas, Dr. Hafler was an Entrepreneurial Fellow at Flagship Ventures in 2010, and consulted for the University of Cambridge’s technology transfer office while performing his doctoral research. Prior to that, Dr. Hafler served as an analyst at JSB Partners LP. Dr. Hafler also serves on the board of trustees at the Buckingham Browne and Nichols School and the boards of directors of the Magdalene College Foundation and Beacon Hill Nursery School. Dr. Hafler holds a B.A. with honors from Bowdoin College and a Ph.D. from the University of Cambridge. Dr. Hafler’s extensive experience in investing in the biopharmaceutical industry contributed to our board of directors’ conclusion that he should serve as a director of our company.

Peter Kolchinsky, Ph.D. has served on our board of directors since March 2021. Dr. Kolchinsky is a founder and Managing Partner at RA Capital Management, L.P., a multi-stage investment manager dedicated to evidence-based investing in healthcare and life science companies that are developing drugs, medical devices, and diagnostics, where he has worked since 2001. Dr. Kolchinsky also serves as the Chairman and Chief Executive Officer of Therapeutics Acquisition Corp. (a/k/a Research Alliance Corp. I) and Research Alliance Corp. II. Dr. Kolchinsky serves on the boards of directors of WAVE Life Sciences, Ltd., Forma Therapeutics Holdings, Inc., Therapeutics Acquisition Corp., and Research Alliance Corp. II, in addition to a number of private companies. Dr. Kolchinsky also leads RA Capital’s engagement and publishing efforts, which aim to make a positive social impact and spark collaboration among healthcare stakeholders, including patients, physicians, researchers, policymakers, and industry. He served on the Board of Global Science and Technology for the National Academy of Sciences from 2009 to 2012, is the author of “The Great American Drug Deal” and “The Entrepreneur’s Guide to a Biotech Startup,” and frequently writes and speaks on the future of biotechnology innovation. Dr. Kolchinsky holds a Ph.D. in virology from Harvard University and a B.S. degree in biology from Cornell University. Dr. Kolchinsky’s extensive experience as a venture capital investor in and director of a number of healthcare and life science companies, as well as his virology training, contributed to our board of directors’ conclusion that he should serve as a director of our company.

Mark McDade has served on our board of directors since August 2019. Since January 2017, Mr. McDade has served as Managing Partner of the Qiming US Healthcare Fund, a venture capital firm. Mr. McDade previously served as
Executive Vice President and Chief Operating Officer of UCB S.A., a Belgian biopharmaceutical company, from 2009 until his retirement in October 2016, after serving as Executive Vice President, Corporate Development since 2008. From 2002 to 2007, Mr. McDade served as Chief Executive Officer and as a member of the board of directors of PDL BioPharma, Inc., a biotechnology company. From 2000 to 2002, Mr. McDade was Chief Executive Officer of Signature BioScience, Inc., a drug discovery company. From 1994 to 2000, Mr. McDade served as Chief Operating Officer and as a director of Corixa Corporation, a biopharmaceutical company he co-founded. At Corixa, Mr. McDade also served as President from 1998 to 2000. Mr. McDade has served on the board of directors of Lupin Ltd., a publicly-traded multinational pharmaceutical company, since February 2021. He served on the board of directors of Dermira, Inc., a biopharmaceutical company from August 2014 until its acquisition by Eli Lilly in February 2020, and served as chairman of the board of directors of Aimmune Therapeutics from May 2014 until its acquisition by Nestle SA in October 2020. Mr. McDade also served on the board of directors of Five Prime Therapeutics, Inc., a biotechnology company, from 2006 to November 2018. Mr. McDade served as a member of the board of directors and as a member of the audit and conflicts committees for Phillips Edison Grocery Center REIT II, Inc., a non-traded real estate investment company, until November 2018 and served as an Independent Director at Phillips Edison Grocery Center REIT III, Inc. from November 2018 until November 2019, when it was acquired by Phillips Edison & Company, Inc. Additionally, Mr. McDade is on the board of several privately-held companies. Mr. McDade received a B.A. in history from Dartmouth College and an M.B.A. from Harvard Business School. Mr. McDade's executive leadership experience in the life science industry and extensive experience as a public company director contributed to our board of directors' conclusion that he should serve as a director of our company.

Eric Moessinger has served on our board of directors since August 2019. Mr. Moessinger has served as a partner at ND Capital since August 2008, where he focuses on life science investments. Mr. Moessinger currently serves on the boards of directors of SQZ Biotechnologies, a public life science company, and private companies Emulate, Inc., Amphivena, Inc. Serotiny, Inc., Visby Medical, Inc. and Lightcast Discovery, Ltd. From January 2016 to February 2019, Mr. Moessinger also served on the board of directors of Pulse Therapeutics, Inc. Mr. Moessinger holds an M.Sc. from the London School of Economics and Political Science and a B.S./B.A. from the University of Florida. Mr. Moessinger's broad operational and transactional experience in the life sciences industries contributed to our board of directors’ conclusion that he should serve as a director of our company.

Board Composition and Election of Directors

Director Independence

Our board of directors currently consists of seven members. Our board of directors has determined that all of our directors, other than Mr. Simpson, are independent directors in accordance with the listing requirements of Nasdaq. The Nasdaq independence definition includes a series of objective tests, including that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his or her family members has engaged in various types of business dealings with us. In addition, as required by Nasdaq rules, our board of directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of the director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director’s business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

Classified Board of Directors

In accordance with the terms of our amended and restated certificate of incorporation that will go into effect immediately prior to the closing of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the directors whose terms then expire will be eligible for reelection until the third annual meeting following reelection. Effective upon the closing of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be , and their terms will expire at our first annual meeting of stockholders following this offering;
- the Class II directors will be and , and their terms will expire at our second annual meeting of stockholders following this offering;
- the Class III directors will be , and their terms will expire at our third annual meeting of stockholders following this offering.
Our amended and restated certificate of incorporation that will go into effect immediately prior to the closing of this offering will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our board of directors or a change in control of our company. Our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of our outstanding voting stock then entitled to vote in an election of directors.

**Board Leadership Structure**

Our board of directors is currently chaired by Dr. Yamada. Our board of directors recognizes that it is important to determine an optimal board leadership structure to ensure the independent oversight of management as the company continues to grow. We separate the roles of chief executive officer and chairman of the board of directors in recognition of the differences between the two roles. The chief executive officer is responsible for setting the strategic direction for our company and the day-to-day leadership and performance of our company, while the chairman of the board of directors provides guidance to the chief executive officer and presides over meetings of the full board of directors. We believe that this separation of responsibilities provides a balanced approach to managing the board of directors and overseeing our company.

Our board of directors has concluded that our current leadership structure is appropriate at this time. However, our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

**Role of Board in Risk Oversight Process**

Our board of directors has responsibility for the oversight of our risk management processes and, either as a whole or through its committees, regularly discusses with management our major risk exposures, their potential impact on our business and the steps we take to manage them. The risk oversight process includes receiving regular reports from board committees and members of senior management to enable our board of directors to understand our risk identification, risk management and risk mitigation strategies with respect to areas of potential material risk, including operations, finance, legal, regulatory, strategic and reputational risk.

The audit committee reviews information regarding liquidity and operations, and oversees our management of financial risks. Periodically, the audit committee reviews our policies with respect to risk assessment, risk management, loss prevention and regulatory compliance. Oversight by the audit committee includes direct communication with our external auditors, and discussions with management regarding significant risk exposures and the actions management has taken to limit, monitor or control such exposures. The compensation committee is responsible for assessing whether any of our compensation policies or programs has the potential to encourage excessive risk-taking. The nominating and corporate governance committee manages risks associated with the independence of the board of directors, corporate disclosure practices and potential conflicts of interest. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire board of directors is regularly informed through committee reports about such risks. Matters of significant strategic risk are considered by our board of directors as a whole.

**Board Committees and Independence**

Our board of directors has established three standing committees—audit, compensation and nominating and corporate governance—each of which operates under a charter that has been approved by our board of directors.

**Audit Committee**

The audit committee’s main function is to oversee our accounting and financial reporting processes and the audits of our financial statements. This committee’s responsibilities include, among other things:

- appointing our independent registered public accounting firm;
- evaluating the qualifications, independence and performance of our independent registered public accounting firm;
approving the audit and non-audit services to be performed by our independent registered public accounting firm;

- reviewing the design, implementation, adequacy and effectiveness of our internal accounting controls and our critical accounting policies;
- discussing with management and the independent registered public accounting firm the results of our annual audit and the review of our quarterly unaudited financial statements;
- reviewing, overseeing and monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters;
- reviewing on a periodic basis, or as appropriate, any investment policy and recommending to our board of directors any changes to such investment policy;
- reviewing with management and our auditors any earnings announcements and other public announcements regarding our results of operations;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and approving any related party transactions and reviewing and monitoring compliance with our code of conduct and ethics; and
- reviewing and evaluating, at least annually, the performance of the audit committee and its members including compliance of the audit committee with its charter.

The members of our audit committee are [names], [names], and [names]. [Chairperson name] serves as the chairperson of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and Nasdaq. Our board of directors has determined that [name] is an “audit committee financial expert” as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq listing standards. Our board of directors has determined each of [names] and [names] is independent under the applicable rules of the SEC and Nasdaq. Upon the listing of our common stock on Nasdaq, the audit committee will operate under a written charter that satisfies the applicable standards of the SEC and Nasdaq.

**Compensation Committee**

Our compensation committee approves policies relating to compensation and benefits of our officers and employees. The compensation committee approves corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives and approves the compensation of these officers based on such evaluations. The compensation committee also approves the issuance of stock options and other awards under our equity plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance by the compensation committee with its charter.

The members of our compensation committee are [names], [names], and [names]. [Chairperson name] serves as the chairperson of the committee. Our board of directors has determined that each of [names] and [names] is independent under the applicable Nasdaq listing standards and is a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act. Upon the listing of our common stock on Nasdaq, the compensation committee will operate under a written charter, which the compensation committee will review and evaluate at least annually.

**Nominating and Corporate Governance Committee**

The nominating and corporate governance committee is responsible for assisting our board of directors in discharging the board of directors’ responsibilities regarding the identification of qualified candidates to become board members, the selection of nominees for election as directors at our annual meetings of stockholders (or special meetings of stockholders at which directors are to be elected), and the selection of candidates to fill any vacancies on our board of directors and any committees thereof. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies, reporting and making recommendations to our board of directors concerning governance matters and oversight of the evaluation of our board of directors.

The members of our nominating and corporate governance committee are [names], [names], and [names]. [Chairperson name] serves as the chairperson of the committee. Our board of directors has determined that each of [names] and [names] is a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act. Upon the listing of our common stock on Nasdaq, the nominating and corporate governance committee will operate under a written charter, which the nominating and corporate governance committee will review and evaluate at least annually.
and is independent under the applicable Nasdaq listing standards. Upon the listing of our common stock on Nasdaq, the nominating and corporate governance committee will operate under a written charter, which the nominating and corporate governance committee will review and evaluate at least annually.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has ever been one of our officers or employees. None of our executive officers currently serves, or has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Board Diversity

Upon the closing of this offering, our nominating and corporate governance committee will be responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members) for election or appointment, the nominating and corporate governance committee and the board of directors will take into account many factors, including the following:

- personal and professional integrity, ethics and values;
- experience in corporate management, such as serving as an officer or former officer of a publicly-held company;
- experience as a board member or executive officer of another publicly-held company;
- strong finance experience;
- diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;
- diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience;
- experience relevant to our business industry and with relevant social policy concerns; and
- relevant academic expertise or other proficiency in an area of our business operations.

Currently, our board of directors evaluates, and following the closing of this offering will evaluate, each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

Code of Business Conduct and Ethics

We plan to adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, which will be effective upon the closing of this offering. Upon the closing of this offering, our code of business conduct and ethics will be available under the Corporate Governance section of our website at www.icosavax.com. In addition, we intend to post on our website all disclosures that are required by law or the listing standards of Nasdaq concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.
EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "Summary Compensation Table" below, whom we refer to as our NEOs.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the closing of this offering may differ materially from the currently planned programs summarized in this discussion.

Summary Compensation Table

The following table presents summary information regarding the total compensation that was awarded to, earned by or paid to our NEOs for services rendered during the year ended December 31, 2020.

<table>
<thead>
<tr>
<th>NAME AND PRINCIPAL POSITION</th>
<th>YEAR</th>
<th>SALARY ($)</th>
<th>BONUS ($)</th>
<th>STOCK AWARDS ($)</th>
<th>OPTION AWARDS ($) (1)</th>
<th>NON-EQUITY INCENTIVE PLAN COMPENSATION ($)</th>
<th>ALL OTHER COMPENSATION ($) (2)</th>
<th>TOTAL ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam Simpson, Chief Executive Officer and Director</td>
<td>2020</td>
<td>357,291</td>
<td>—</td>
<td>—</td>
<td>121,293</td>
<td>144,703</td>
<td>—</td>
<td>623,287</td>
</tr>
<tr>
<td>Douglas Holtzman, Ph.D., Chief Scientific Officer</td>
<td>2020</td>
<td>275,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>74,250</td>
<td>—</td>
<td>349,250</td>
</tr>
<tr>
<td>Niranjan Kanesa-thasan, M.D., Chief Medical Officer</td>
<td>2020</td>
<td>342,980</td>
<td>—</td>
<td>—</td>
<td>32,093</td>
<td>90,225</td>
<td>—</td>
<td>465,298</td>
</tr>
<tr>
<td>Cassia Cearley, Ph.D., Chief Business Officer</td>
<td>2020</td>
<td>275,000</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>74,250</td>
<td>—</td>
<td>349,250</td>
</tr>
</tbody>
</table>

(1) Represents the grant date fair value of stock options to purchase shares of our common stock during fiscal year 2020 computed in accordance with FASB ASC 718. See Note 8 to the financial statements for the fiscal year ended December 31, 2020 included with this prospectus for a description of the assumptions used in valuing our stock options.

(2) None of our NEOs received any perquisites or other personal benefits that in the aggregate exceeded $10,000 during 2020.

Narrative Disclosure to Compensation Tables

The primary elements of compensation for our NEOs are base salary, annual bonuses and long-term incentive awards in the form of equity awards. The NEOs also participate in employee benefit plans and programs that we offer to our other employees, as described below.

**Annual Base Salary**

We pay our NEOs a base salary to compensate them for the satisfactory performance of services rendered to us. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries for our NEOs have generally been set at levels deemed necessary to attract and retain individuals with superior talent.

Our NEOs' base salaries in effect at the end of 2020 were as follows: Mr. Simpson, $375,000; Dr. Holtzman, $275,000; Dr. Kanesa-thasan, $362,500, and Dr. Cearley, $275,000. Effective January 1, 2021, the base salaries for each of Mr. Simpson, Dr. Holtzman, Dr. Kanesa-thasan, and Dr. Cearley were increased to $475,000, $315,000, $400,000, and $300,000, respectively.

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**Bonus Compensation**

From time to time our board of directors or compensation committee may approve bonuses for our NEOs based on achievement of certain clinical trial milestones and enhancement of operational capabilities. Pursuant to their respective employment letter agreements, each NEO has an established target annual bonus amount. For 2020, our NEOs' target bonuses, expressed as a percentage of annual base salary, were for each of Mr. Simpson, Dr. Holtzman, Dr. Kanesa-thasan, and Dr. Cearley, 45%, 30%, 30%, and 30%, respectively.

For 2020, the annual bonuses paid were based on such factors as the board and the compensation committee deemed appropriate, including initial manufacturing scale-up of IVX-121 to support toxicology studies and preparation for regulatory interactions, preparation for the IVX-121 Phase 1/1b clinical trial, selection of our hMVP candidate for future development, advancement of IVX-411 as a result of the COVID-19 pandemic (and related Bill & Melinda Gates Foundation grant) and general increase in operational abilities since our Series A financing in August 2019, and each individual NEO's performance as it relates to his or her area of responsibility. The annual bonuses paid to our NEOs for 2020 are reflected in the Summary Compensation Table above.

The 2021 target annual bonus amounts for each NEO, expressed as a percentage of annual base salary, are as follows: Mr. Simpson, 50%; Dr. Holtzman, 30%; Dr. Kanesa-thasan 30%, and Dr. Cearley 30%.

**Equity-Based Incentive Awards**

Our equity-based incentive awards are designed to align our interests and the interests of our stockholders with those of our employees and consultants, including our NEOs. Our board of directors and compensation committee are responsible for approving equity grants. We typically grant equity awards to new hires upon their commencing employment with us. Generally, our equity awards vest over four years, subject to the employee's continued employment with us on each vesting date.

On May 11, 2020, we granted Mr. Simpson an option to purchase 477,708 shares of our common stock. This option vests as to 25% of the underlying shares on the one year anniversary of the grant date, and the remainder vest in equal monthly installments over the three year period thereafter, subject to Mr. Simpson's continued service. The option was granted at an exercise price of $0.20 per share, which was the fair market value of a share of our common stock on the grant date. The option is eligible to vest on an accelerated basis in the event of our termination of Mr. Simpson's employment without cause or Mr. Simpson's resignation for good reason, in either case within 18 months following a change in control.

On August 7, 2020, we granted Dr. Kanesa-thasan an option to purchase 125,182 shares of our common stock. This option vests as to 25% of the underlying shares on the one year anniversary of the grant date, and the remainder vest in equal monthly installments over the three year period thereafter, subject to Dr. Kanesa-thasan’s continued service. The option was granted at an exercise price of $0.20 per share, which was the fair market value of a share of our common stock on the grant date. The option is eligible to vest on an accelerated basis in the event of Dr. Kanesa-thasan's termination without cause or Dr. Kanesa-thasan's resignation for good reason, in either case within 18 months following a change in control.

On January 29, 2021, we granted each NEO an option to purchase shares of our common stock. These options vest as to 25% of the underlying shares on the one year anniversary of the grant date, and the remainder vest in equal monthly installments over the three year period thereafter, subject to each NEO's continued service. The options were granted at an exercise price of $0.25 per share, which was the fair market value of a share of our common stock on the grant date. The options are eligible to vest on an accelerated basis in the event of our termination of each NEO’s employment without cause or each NEO’s resignation for good reason, in either case within 18 months following a change in control. The number of shares of our common stock subject to options granted to our NEOs are as follows: Mr. Simpson, 2,129,941; Dr. Holtzman, 271,868; Dr. Kanesa-thasan 647,412, and Dr. Cearley 433,042.

On April 12, 2021, we granted each NEO an option to purchase shares of our common stock. These options vest as to 25% of the underlying shares on the one year anniversary of the grant date, and the remainder vest in equal monthly installments over the three year period thereafter, subject to each NEO’s continued service. The options were granted at an exercise price of $1.42 per share, which was the fair market value of a share of our common stock on the grant date. The options are eligible to vest on an accelerated basis in the event of our termination of each NEO’s employment without cause or each NEO’s resignation for good reason, in either case within 18 months following a change in control.
each NEO's employment without cause or each NEO's resignation for good reason, in either case within 18 months following a change in control. The number of shares of our common stock subject to the options granted to our NEOs are as follows: Mr. Simpson, 5,600,000; Dr. Holtzman, 700,000; Dr. Kanesathasan, 500,000, and Dr. Cearley, 750,000.

Employment Letter Agreements with Our Executive Officers
We have entered into employment letter agreements with each of our executive officers.

Employment Letter with Adam Simpson
We have entered into an employment letter with Mr. Simpson, pursuant to which Mr. Simpson serves as a member of our board of directors and our Chief Executive Officer (the Simpson Agreement).

The Simpson Agreement provides for Mr. Simpson's annual base salary and target annual bonus. Additionally, under the Simpson Agreement, Mr. Simpson is eligible to participate in all employee benefit plans and programs available to similarly situated employees of our company and is entitled to vacation benefits in accordance with our policies.

The Simpson Agreement provides that Mr. Simpson shall at all times faithfully, industriously and to the best of his ability, experience and talent perform to the satisfaction of our board of directors all of the duties that may be assigned to him. However, subject to the terms of our standard confidential information and invention assignment agreement, the Simpson Agreement does not preclude Mr. Simpson from devoting time to personal and family investments or serving on community and civic boards, participating in industry associations, or engaging in other business or public activities (including providing consulting services to other entities, being employed by other entities and/or serving on the board of other entities), provided such activities do not interfere with the duties that Mr. Simpson owes us, as determined in good faith by our board of directors.

Regardless of the manner in which Mr. Simpson's employment terminates, he will be entitled to receive amounts previously earned during his term of employment, including unpaid salary and accrued but unused vacation. In addition, Mr. Simpson will be entitled to certain severance benefits under the Simpson Agreement, subject to his execution of a release of claims, returning all company property, compliance with post-termination obligations and resignation from positions with us.

Upon a termination without cause or resignation for good reason (each, a "qualifying termination"), Mr. Simpson will be entitled to: (1) severance in an amount equal to his base salary for 12 months (such applicable period, the "severance period"), (2) to the extent his qualifying termination occurs within eighteen months following a change in control, an amount equal to his target annual bonus for the year of termination, (3) payment of the cost of his health care coverage in effect at the time of his termination for the severance period, (4) accelerated vesting of his then unvested stock awards granted prior to August 15, 2019, and (5) accelerated vesting of such portion of his then unvested stock awards granted on or after August 15, 2019 that would have vested during the 12 months following his date of termination had Mr. Simpson remained in service with us during such period; provided that, for purposes of Mr. Simpson's accelerated vesting, Mr. Simpson's services shall not be considered to have been terminated pursuant to a qualifying termination if Mr. Simpson ceases to serve as Chief Executive Officer of the Company, but continues to serve as a member of our board of directors, in which case, the foregoing acceleration provisions will be triggered upon a qualifying termination of Mr. Simpson's service on our board of directors.

Additionally, the Simpson Agreement provides that in the event of a change in control or Mr. Simpson's termination due to death or disability, 50% of Mr. Simpson's stock awards granted prior to August 15, 2019 (or 100% in the case of a termination due to death or disability) shall vest immediately prior to such change in control or termination, as applicable. In addition, in the event of Mr. Simpson's qualifying termination within 18 months following a change in control, all of his then unvested stock awards granted on or after August 15, 2019 will vest upon such termination.

In connection with Mr. Simpson's commencement of employment with us, Mr. Simpson also entered into our standard confidential information and invention assignment agreement, which includes one-year post-termination non-solicitation restrictions and customary confidentiality provisions.
For purposes of the Simpson Agreement:

- “cause” means a (1) conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (2) commission of, or participation in, a fraud or act of dishonesty or other illegal act against us; (3) intentional, material violation of any contract or agreement between Mr. Simpson and us or of any statutory duty owed to us; (4) unauthorized use or disclosure of our confidential information or trade secrets; or (5) gross misconduct; provided, that, with respect to clauses (3) and (4) above, “cause” will be triggered after Mr. Simpson has received written notification of such failure from our board of directors, which, if curable, remains uncurable after thirty days.

- “change in control” generally means (1) a merger or consolidation of our company with or into any other corporation or other entity or person, (2) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of our assets, or (3) any other transaction, including the sale by us of new shares of its capital stock or a transfer of existing shares of our capital stock, the result of which is that a third party that is not our affiliate immediately prior to such transaction acquires or holds our capital stock representing a majority of our outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “change in control”: (a) a transaction (other than a sale of all or substantially all of our assets) in which the holders of our voting securities immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (b) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of our assets to an affiliate of ours; (c) an initial public offering of our securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (d) a reincorporation of our company solely to change its jurisdiction; or (e) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held our securities immediately before such transaction.

- “good reason” generally means any of the following actions taken by us without Mr. Simpson’s consent: (1) material reduction of base compensation, other than to the extent the base compensation of all of the executive officers are concurrently reduced by the same or greater percentage; (2) material reduction in authority, duties or responsibilities, provided, however, that a change in job position (including a change in title) shall not be deemed a “material reduction” unless the new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities; or (3) relocation of the principal place at which Mr. Simpson is required to provide services or his principal place of employment that results in an increase in the one-way driving distance by more than fifty miles from the then current principal place of business or residence, as applicable.

**Employment Letters with each of Douglas Holtzman, Niranjan Kanesa-thasan, Cassia Cearley, and Charles Richardson**

We have entered into employment letters with each of Dr. Holtzman, Kanesa-thasan, Cearley, and Mr. Richardson (the Other NEO Agreements).

The Other NEO Agreements provide for each executive’s annual base salary and target annual bonus. Additionally, under the Other NEO Agreements, each executive is eligible to participate in all employee benefit plans and programs available to similarly situated employees of our company and is entitled to vacation benefits in accordance with our policies. The Other NEO Agreements provide that each executive is employed on a full-time basis.

Regardless of the manner in which an executive’s employment terminates, he or she will be entitled to receive amounts previously earned during his or her term of employment, including unpaid salary and accrued but unused vacation. In addition, each executive will be entitled to certain severance benefits under his or her Other NEO Agreement, subject to execution of a release of claims, returning all company property, compliance with post-termination obligations and resignation from all positions with us.

Upon a termination without cause or resignation for good reason (each, a “qualifying termination”), each of Drs. Holtzman, Kanesa-thasan, Cearley, and Mr. Richardson will be entitled to: (1) severance in an amount equal to his or her base salary for 6 months (such applicable period, the “severance period”) (however, upon a qualifying
termination that occurs within eighteen months following a change in control, each executive will instead be entitled to his or her base salary for 12 months plus an amount equal to a pro rata portion of his or target annual bonus for the year of termination), (2) payment of the cost of his or her health care coverage in effect at the time of his or her termination for the severance period, and (3) accelerated vesting of such portion of his or her then unvested stock awards that would have vested during the 6 months following his or her date of termination had he or she remained in service with us during such period. In addition, in the event of a qualifying termination within 18 months following a change in control, all of an executive’s stock awards granted on or after August 15, 2019 will vest upon such termination.

In connection with their commencement of employment with us, each or Drs. Holtzman, Kanesas-thasan, Cearley, and Mr. Richardson also entered into our standard confidential information and invention assignment agreement, which includes one-year post-termination non-solicitation restrictions and customary confidentiality provisions.

For purposes of the Other NEO Agreements, the terms cause, change in control and good reason are generally defined in the same manner as described above in connection with Mr. Simpson's agreement.

Outstanding Equity Awards at Fiscal Year-End
The following table sets forth information with respect to outstanding equity awards for each of our NEOs as of December 31, 2020.

<table>
<thead>
<tr>
<th>OPTION AWARDS</th>
<th>STOCK AWARDS</th>
<th>MARKET VALUE OF SHARES OR UNITS OF STOCK THAT HAVE NOT VESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRANT DATE</td>
<td>NUMBER OF SECURITIES UNDERLYING EXERCISED OPTIONS (#)</td>
<td>NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS (#)</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Adam Simpson</td>
<td>12/11/2017</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>5/21/2018</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>9/13/2019</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>9/13/2019</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>5/11/2020</td>
<td>—</td>
</tr>
<tr>
<td>Douglas Holtzman, Ph.D.</td>
<td>12/14/2017</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>9/13/2019</td>
<td>—</td>
</tr>
<tr>
<td>Niranjana Kanesas-thasan, M.D.</td>
<td>11/19/2018</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>9/13/2019</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>8/7/2020</td>
<td>—</td>
</tr>
<tr>
<td>Cassia Cearley, Ph.D.</td>
<td>12/2/2019</td>
<td>125,181</td>
</tr>
</tbody>
</table>

(1) Stock options granted to our NEOs vest over a period of four years with 25% of the shares underlying the option vesting on the one year anniversary of the vesting commencement date (August 16, 2019 for Mr. Simpson’s September 2019 grant, December 2, 2019 for Dr. Cearley’s December 2019 grant, February 21, 2020 for Mr. Simpson’s May 2020 grant and April 1, 2020 for Dr. Kanesas-thasan’s August 2020 grant) and 1/48th of the shares underlying the option vesting on a monthly basis thereafter, subject to continued service through each vesting date, and subject to accelerated vesting in certain circumstances as described above under “— Employment Letter Agreements with Our Executive Officers.”

(2) Since we have not yet completed our initial public offering, the market value was computed using $ , which is the midpoint of the price range set forth on the cover of this prospectus.

(3) Represents unvested restricted shares issued in December 2017. 744,737 restricted shares were originally issued to Mr. Simpson and 372,368 restricted shares were originally issued to Dr. Holtzman in December 2017, of which 20% were vested upon issuance, with the remaining 80% vesting in equal monthly installments over a period of four years commencing on the issuance date, subject to continued service through each vesting date. 50% of the then-unvested restricted shares will vest upon a change in control and all of the then-unvested restricted shares will vest in the event of the executive’s death or disability. In addition, all of the then-unvested restricted shares will vest in the event of the executive’s termination without cause or resignation for good reason (provided such termination occurs following a change in control with respect to Dr. Holtzman).

(4) Represents unvested restricted shares issued upon early exercise of a stock option originally granted on May 21, 2018 at an exercise price of $0.001 per share. 1,422,138 shares were issued to Mr. Simpson upon early exercise in full of the stock option, of which
20% were vested upon issuance and a further 20% vested on June 30, 2019, with 1/36th of the remaining shares vesting on a monthly basis over three years thereafter, subject to continued service through each vesting date, and subject to accelerated vesting in certain circumstances as described above under “—Employment Letter Agreements with Our Executive Officers.”

(5) Consists of shares underlying a stock option granted to Mr. Simpson on September 13, 2019 at an exercise price of $0.20 per share. The stock option is subject to the standard vesting schedule described in footnote (1) above, with vesting commencing on August 16, 2019, and is eligible for early exercise. The option is subject to accelerated vesting in certain circumstances as described above under “—Employment Letter Agreements with Our Executive Officers.”

(6) Represents unvested restricted shares issued upon early exercise of the stock option originally granted on September 13, 2019 at an exercise price of $0.20 per share and described in footnote (5) above. 500,000 shares were issued to Mr. Simpson upon early exercise of a portion of the option, with such shares subject to the standard vesting schedule described in footnote (1) above, with vesting commencing on August 16, 2019, subject to accelerated vesting in certain circumstances as described above under “—Employment Letter Agreements with Our Executive Officers.”

(7) Represents unvested restricted shares issued upon early exercise of stock options originally granted on September 13, 2019 at an exercise price of $0.20 per share. 629,084 shares of restricted stock were issued to Dr. Holtzman and 330,726 shares of restricted stock were issued to Dr. Kanesa-thasan upon early exercise in full of the stock options, with such shares subject to the standard vesting schedule described in footnote (1) above with vesting commencing on August 16, 2019, subject to accelerated vesting in certain circumstances as described above under “—Employment Letter Agreements with Our Executive Officers.”

(8) Represents unvested restricted shares issued upon early exercise of a stock option originally granted on November 19, 2018 at an exercise price of $0.01 per share. 170,000 shares of restricted stock were issued to Dr. Kanesa-thasan upon early exercise in full of the stock option, with such shares subject to the standard vesting schedule described in footnote (1) above with vesting commencing on September 1, 2018, subject to accelerated vesting in certain circumstances as described above under “—Employment Letter Agreements with Our Executive Officers.”

Other Elements of Compensation

Perquisites, Health, Welfare and Retirement Benefits

Our NEOs are eligible to participate in our employee benefit plans, including our medical, dental, vision, group life, disability and accidental death and dismemberment insurance plans, in each case on the generally on same basis as all of our other employees. We generally do not provide perquisites or personal benefits to our named executive officers, except in limited circumstances. Our board of directors may elect to adopt qualified or non-qualified benefit plans in the future if it determines that doing so is in our best interests.

401(k) Plan

We maintain a defined contribution employee retirement plan (the 401(k) Plan), for our employees. Our named executive officers are eligible to participate in the 401(k) Plan on the same basis as our other employees. The 401(k) Plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Internal Revenue Code of 1986, as amended (the Code). The 401(k) Plan provides that each participant may make pre-tax deferrals from his or her compensation up to the statutory limit, which is $19,500 for calendar year 2021, and other testing limits. Participants that are 50 years or older can also make “catch-up” contributions, which in calendar year 2021 may be up to an additional $6,500 above the statutory limit. Commencing in 2021, we will make a 3% safe-harbor non-elective employer contribution. Participant contributions are held and invested, pursuant to the participant’s instructions, by the plan’s trustee.

Nonqualified Deferred Compensation

We do not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans. Our board of directors or compensation committee may elect to provide our officers and other employees with non-qualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

Termination or Change in Control Benefits

Our NEOs may become entitled to certain benefits or enhanced benefits in connection with a change in control of our company and/or certain terminations. Each of our NEOs’ employment letter agreement entitles him or her to certain benefits upon a qualifying termination and in connection with a change in control of our company. In addition, the award agreements evidencing the equity awards granted to our executive officers provide for accelerated vesting under certain circumstances. For additional discussion, please see “—Employment Letter Agreements with Our Executive Officers” and “—Outstanding Equity Awards at Fiscal Year-End.”

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Incentive Award Plans

2021 Incentive Award Plan

In connection with this offering, we intend to adopt and ask our stockholders to approve the 2021 Plan under which we may grant cash and equity-based incentive awards to eligible service providers in order to attract, retain and motivate the persons who make important contributions to the company. The material terms of the 2021 Plan, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the 2021 Plan and, accordingly, this summary is subject to change. The 2021 Plan will become effective on the day prior to the first public trading date of our common stock.

Eligibility and Administration

Our employees, consultants and directors, and employees and consultants of our subsidiaries will be eligible to receive awards under the 2021 Plan. The 2021 Plan will be administered by our board of directors with respect to awards to non-employee directors and by our compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to the limitations that may be imposed under the 2021 Plan, Section 16 of the Exchange Act, stock exchange rules and other applicable laws. The plan administrator will have the authority to take all actions and make all determinations under the 2021 Plan, to interpret the 2021 Plan and award agreements and to adopt, amend and repeal rules for the administration of the 2021 Plan as it deems advisable. The plan administrator will also have the authority to determine which eligible service providers receive awards, grant awards and set the terms and conditions of all awards under the 2021 Plan, including any vesting and vesting acceleration provisions, subject to the conditions and limitations in the 2021 Plan.

Shares Available

The number of shares initially available for issuance under awards granted pursuant to the 2021 Plan will be the sum of (1) shares of our common stock, plus (2) any shares subject to outstanding awards under our 2017 Equity Incentive Plan (2017 Plan) as of the effective date of the 2021 Plan that become available for issuance under the 2021 Plan thereafter in accordance with its terms. The number of shares initially available for issuance will be increased by an annual increase on January 1 of each calendar year beginning in 2022 and ending in and including 2031, equal to the lesser of (A) 5% of the shares outstanding on the final day of the immediately preceding calendar year and (B) a smaller number of shares as determined by our board of directors. No more than shares of common stock may be issued under the 2021 Plan upon the exercise of incentive stock options. Shares available under the 2021 Plan may be authorized but unissued shares, shares purchased on the open market or treasury shares.

If an award under the 2021 Plan expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, or canceled without having been fully exercised or forfeited, any unused shares subject to the award will, as applicable, become or again be available for new grants under the 2021 Plan. Awards granted under the 2021 Plan in substitution for any options or other stock or stock-based awards granted by an entity before the entity's merger or consolidation with us or our acquisition of the entity's property or stock will not reduce the shares available for grant under the 2021 Plan, but will count against the maximum number of shares that may be issued upon the exercise of incentive stock options.

Awards

The 2021 Plan provides for the grant of stock options, including incentive stock options (ISOs) and nonqualified stock options (NSOs), stock appreciation rights (SARs), restricted stock, dividend equivalents, restricted stock units (RSUs), and other stock or cash-based awards. Certain awards under the 2021 Plan may constitute or provide for payment of “nonqualified deferred compensation” under Section 409A of the Code. All awards under the 2021 Plan will be set forth in award agreements, which will detail the terms and conditions of awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- Stock Options and SARs. Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Code are satisfied. SARs entitle their holder, upon exercise, to receive from us an
amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The plan
administrator will determine the number of shares covered by each option and SAR, the exercise price of each option and SAR and
the conditions and limitations applicable to the exercise of each option and SAR. The exercise price of a stock option or SAR will not
be less than 100% of the fair market value of the underlying share on the grant date (or 110% in the case of ISOs granted to certain
significant stockholders), except with respect to certain substitute awards granted in connection with a corporate transaction. The term
of a stock option or SAR may not be longer than ten years (or five years in the case of ISOs granted to certain significant
stockholders).

- Restricted Stock and RSUs. Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable
unless and until specified conditions are met and which may be subject to a purchase price. RSUs are contractual promises to deliver
shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be
accompanied by the right to receive the equivalent value of dividends paid on shares of our common stock prior to the delivery of the
underlying shares. The plan administrator may provide that the delivery of the shares underlying RSUs will be deferred on a
mandatory basis or at the election of the participant. The terms and conditions applicable to restricted stock and RSUs will be
determined by the plan administrator, subject to the conditions and limitations contained in the 2021 Plan.

- Other Stock or Cash-Based Awards. Other stock or cash-based awards are awards of cash, fully vested shares of our common stock
and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock or other property.
Other stock or cash-based awards may be granted to participants and may also be available as a payment form in the settlement of
other awards, as standalone payments and as payment in lieu of compensation to which a participant is otherwise entitled. The plan
administrator will determine the terms and conditions of other stock or cash-based awards, which may include any purchase price,
performance goal, transfer restrictions and vesting conditions.

Performance Criteria
The plan administrator may select performance criteria for an award to establish performance goals for a performance period. Performance
criteria under the 2021 Plan may include, but are not limited to, the following: net earnings or losses (either before or after one or more of interest,
taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth;
net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net
operation profit or economic profit); profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or
after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital);
return on assets; return on capital or invested capital; cost of capital; return on stockholders’ equity; total stockholder return; return on sales;
costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share;
price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance;
implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or
developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer
satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management;
supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity,
availability, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand;
acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to
any incremental increase or decrease. Such performance goals also may be based solely by reference to the company’s performance or the
performance of a subsidiary, division, business segment or business unit of the company or a subsidiary, or based upon performance relative to
performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies. When
determining performance goals, the plan administrator may provide for exclusion of the impact of an event or occurrence which the plan
administrator determines should appropriately be excluded, including, without limitation, non-recurring charges or events, acquisitions or
divestitures, changes in the corporate or capital structure, events unrelated to the business or outside of the control of management, foreign
exchange considerations, and legal, regulatory, tax or accounting changes.
Certain Transactions
In connection with certain corporate transactions and events affecting our common stock, including a change in control, or change in any applicable laws or accounting principles, the plan administrator has broad discretion to take action under the 2021 Plan to prevent the dilution or enlargement of intended benefits, facilitate the transaction or event or give effect to the change in applicable laws or accounting principles. This includes canceling awards for cash or property, accelerating the vesting of awards, providing for the assumption or substitution of awards by a successor entity, adjusting the number and type of shares subject to outstanding awards and/or with respect to which awards may be granted under the 2021 Plan and replacing or terminating awards under the 2021 Plan. In addition, in the event of certain non-reciprocal transactions with our stockholders, the plan administrator will make equitable adjustments to the 2021 Plan and outstanding awards as it deems appropriate to reflect the transaction. In the event of a change in control of the company (as defined in the 2021 Plan), to the extent that the surviving entity declines to continue, convert, assume or replace outstanding awards, then all such awards may become fully vested and exercisable in connection with the transaction. Individual award agreements may provide for additional accelerated vesting and payment provisions.

Provisions of the 2021 Plan Relating to Director Compensation
The 2021 Plan provides that the plan administrator may establish compensation for non-employee directors from time to time subject to the 2021 Plan's limitations. Prior to commencing this offering, we intend to approve and implement a compensation program for our non-employee directors. Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation or other compensation and the grant date fair value of any equity awards granted under the 2021 Plan as compensation for services as a non-employee director during any fiscal year may not exceed $1,000,000 (increased to $1,200,000 in the calendar year of a non-employee director’s initial service as a non-employee director or any calendar year in which a non-employee director serves as chairman of the board or lead independent director for any portion of such year), which limits shall not apply to the compensation for any non-employee director who serves in any capacity in addition to that of a non-employee director for which he or she receives additional compensation or any compensation paid to any non-employee director prior to the first calendar year following the completion of this offering. The plan administrator may make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the plan administrator may determine in its discretion, subject to the limitations in the 2021 Plan.

Foreign Participants, Claw-Back Provisions, Transferability, and Participant Payments
The plan administrator may modify awards granted to participants who are foreign nationals or employed outside the United States or establish subplans or procedures to address differences in laws, rules, regulations or customs of such foreign jurisdictions. All awards will be subject to any company claw-back policy as set forth in such claw-back policy or the applicable award agreement. Except as the plan administrator may determine or provide in an award agreement, awards under the 2021 Plan are generally non-transferable, except by will or the laws of descent and distribution, or, subject to the plan administrator's consent, pursuant to a domestic relations order and are generally exercisable only by the participant. With regard to tax withholding obligations arising in connection with awards under the 2021 Plan and exercise price obligations arising in connection with the exercise of stock options under the 2021 Plan, the plan administrator may, in its discretion, accept cash, wire transfer or check, shares of our common stock that meet specified conditions, a promissory note, a “market sell order,” such other consideration as the plan administrator deems suitable or any combination of the foregoing.

Plan Amendment and Termination
Our board of directors may amend or terminate the 2021 Plan at any time; however, no amendment, other than an amendment that increases the number of shares available under the 2021 Plan, may materially and adversely affect an award outstanding under the 2021 Plan without the consent of the affected participant and stockholder approval will be obtained for any amendment to the extent necessary to comply with applicable laws. Further, the plan administrator may, without the approval of our stockholders, amend any outstanding stock option or SAR to reduce its price per share, other than in the context of corporate transactions or equity restructurings, as described above. The 2021 Plan will remain in effect until the tenth anniversary of its effective date, unless earlier terminated by our board of directors. No awards may be granted under the 2021 Plan after its termination.

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The 2021 Plan is intended to conform to all provisions of the Securities Act, the Exchange Act and any and all regulations and rules promulgated by the SEC thereunder, including, without limitation, Exchange Act Rule 16b-3. The 2021 Plan will be administered, and awards will be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations.

Federal Income Tax Consequences

The material federal income tax consequences of the 2021 Plan under current federal income tax law are summarized in the following discussion, which deals with the general U.S. federal income tax principles applicable to the 2021 Plan. The following discussion is based upon laws, regulations, rulings and decisions now in effect, all of which are subject to change. Foreign, state and local tax laws, and employment, estate and gift tax considerations are not discussed due to the fact that they may vary depending on individual circumstances and from locality to locality.

- **Stock Options and SARs:** A 2021 Plan participant generally will not recognize taxable income and we generally will not be entitled to a tax deduction upon the grant of a stock option or SAR. The tax consequences of exercising a stock option and the subsequent disposition of the shares received upon exercise will depend upon whether the option qualifies as an ISO or an NSO. Upon exercising an NSO when the fair market value of our stock is higher than the exercise price of the option, a 2021 Plan participant generally will recognize taxable income at ordinary income tax rates equal to the excess of the fair market value of the stock on the date of exercise over the purchase price, and we (or our subsidiaries, if any) generally will be entitled to a corresponding tax deduction for compensation expense, in the amount equal to the amount by which the fair market value of the shares purchased exceeds the purchase price for the shares. Upon a subsequent sale or other disposition of the option shares, the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant’s tax basis in the shares.

Upon exercising an ISO, a 2021 Plan participant generally will not recognize taxable income, and we will not be entitled to a tax deduction for compensation expense. However, upon exercise, the amount by which the fair market value of the shares purchased exceeds the purchase price will be an item of adjustment for alternative minimum tax purposes. The participant will recognize taxable income upon a sale or other taxable disposition of the option shares. For federal income tax purposes, dispositions are divided into two categories: qualifying and disqualifying. A qualifying disposition generally occurs if the sale or other disposition is made more than two years after the date the option was granted and more than one year after the date the shares are transferred upon exercise. If the sale or disposition occurs before these two periods are satisfied, then a disqualifying disposition generally will result.

Upon a qualifying disposition of ISO shares, the participant will recognize long-term capital gain in an amount equal to the excess of the amount realized upon the sale or other disposition of the shares over their purchase price. If there is a disqualifying disposition of the shares, then the excess of the fair market value of the shares on the exercise date (or, if less, the price at which the shares are sold) over their purchase price will be taxable as ordinary income to the participant. If there is a disqualifying disposition in the same year of exercise, it eliminates the item of adjustment for alternative minimum tax purposes. Any additional gain or loss recognized upon the disposition will be recognized as a capital gain or loss by the participant.

We will not be entitled to any tax deduction if the participant makes a qualifying disposition of ISO shares. If the participant makes a disqualifying disposition of the shares, we should be entitled to a tax deduction for compensation expense in the amount of the ordinary income recognized by the participant.

Upon exercising or settling a SAR, a 2021 Plan participant will recognize taxable income at ordinary income tax rates, and we should be entitled to a corresponding tax deduction for compensation expense, in the amount paid or value of the shares issued upon exercise or settlement. Payments in shares will be valued at the fair market value of the shares at the time of the payment, and upon the subsequent disposition of the shares the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant’s tax basis in the shares.
Restricted Stock and RSUs. A 2021 Plan participant generally will not recognize taxable income at ordinary income tax rates and we
generally will not be entitled to a tax deduction upon the grant of restricted stock or RSUs. Upon the termination of restrictions on
restricted stock or the settlement of RSUs, the participant will recognize taxable income at ordinary income tax rates, and we should
be entitled to a corresponding tax deduction for compensation expense, in the amount paid to the participant or the amount by which
the then fair market value of the shares received by the participant exceeds the amount, if any, paid for them. Upon the subsequent
disposition of any shares, the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference
between the sales price of the shares and the participant’s tax basis in the shares. However, a 2021 Plan participant granted restricted
stock that is subject to forfeiture or repurchase through a vesting schedule such that it is subject to a substantial risk of forfeiture (as
defined in Section 83 of the Internal Revenue Code) may make an election under Section 83(b) of the Internal Revenue Code to
recognize taxable income at ordinary income tax rates, at the time of the grant, in an amount equal to the fair market value of the
shares of common stock on the date of grant, less the amount paid, if any, for the shares. We will be entitled to a corresponding tax
deduction for compensation, in the amount recognized as taxable income by the participant. If a timely Section 83(b) election is made,
the participant will not recognize any additional ordinary income on the termination of restrictions on restricted stock, and we will not
be entitled to any additional tax deduction.

Other Stock or Cash-Based Awards. A 2021 Plan participant will not recognize taxable income and we will not be entitled to a tax
deduction upon the grant of other stock or cash-based awards unless or until cash or shares are paid or distributed to the participant.
At that time, any cash payments or the fair market value of shares that the participant receives will be taxable to the participant at
ordinary income tax rates and we should be entitled to a corresponding tax deduction for compensation expense. Payments in shares
will be valued at the fair market value of the shares at the time of the payment. Upon the subsequent disposition of the shares, the
participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the
shares and the participant’s tax basis in the shares.

2017 Equity Incentive Plan
We currently maintain the 2017 Plan, which has been approved by our board of directors and our stockholders.

Shares Available
A total of 29,631,863 shares of our common stock are reserved for issuance under the 2017 Plan. As of March 31, 2021, shares of our
common stock were subject to outstanding stock options under the 2017 Plan and shares of our common stock remained available for
future issuance under the 2017 Plan.

After the effective date of the 2021 Plan, no additional awards will be granted under the 2017 Plan. However, the 2017 Plan will continue to
govern the terms and conditions of the outstanding awards granted under it. Shares of our common stock subject to awards granted under the
2017 Plan that expire, lapse or are terminated, exchanged for cash, surrendered, repurchased or forfeited following the effective date of the 2017
Plan will be available for issuance under the 2017 Plan in accordance with its terms.

Eligibility and Administration
Awards under the 2017 Plan may be granted to individuals who are then our employees, consultants and members of our board of directors and
our subsidiaries. Only employees may be granted ISOs. Our board of directors administers the 2017 Plan, unless it delegates authority for
administration of the plan. Subject to the terms and conditions of the 2017 Plan, the administrator has the authority to select the persons to whom
awards are to be made, to determine the type or types of awards to be granted to each person, determine the number of awards to grant,
determine the number of shares to be subject to such awards, and the terms and conditions of such awards, and make all other determinations
and decisions and to take all other actions necessary or advisable for the administration of the 2017 Plan. The plan administrator is also
authorized to establish, adopt, amend or revise rules relating to administration of the 2017 Plan, subject to certain restrictions.

Awards
The 2017 Plan provides that our administrator may grant or issue stock options (including NSOs and ISOs), restricted stock, RSUs, other stock-
based awards, or any combination thereof. The administrator considers each
award grant subjectively, considering factors such as the individual performance of the recipient and the anticipated contribution of the recipient to the attainment of our long-term goals. Each award is set forth in a separate agreement with the person receiving the award and indicates the type, terms and conditions of the award.

Certain Transactions
The plan administrator has broad discretion to equitably adjust the provisions of the 2017 Plan and the terms and conditions of existing and future awards, including with respect to aggregate number and type of shares subject to the 2017 Plan and awards granted pursuant to the 2017 Plan, to prevent the dilution or enlargement of intended benefits and/or facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. The plan administrator may also provide for the acceleration, cash-out, termination, assumption or conversion of awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders, or an “equity restructuring,” the plan administrator will make equitable adjustments to the 2017 Plan and outstanding awards as it deems appropriate to reflect the equity restructuring.

In the event of a change of control where the acquirer does not assume awards granted under the 2017 Plan, awards issued under the 2017 Plan held by persons who have not experienced a termination of service will be subject to accelerated vesting such that all of the awards will become vested and exercisable or payable, as applicable, immediately prior to the change in control.

Plan Amendment and Termination
Our board of directors may terminate, amend or modify the 2017 Plan. However, stockholder approval of any amendment to the 2017 Plan must be obtained to the extent necessary and desirable to comply with any applicable law, regulation or stock exchange rule, or for any amendment to the 2017 Plan that increases the number of shares available under the 2017 Plan. If not terminated earlier by the compensation committee or the board of directors, the 2017 Plan will terminate on May 6, 2029.

Securities Laws and Federal Income Tax Consequences
The 2017 Plan is designed to comply with applicable securities laws in the same manner as described above in the description of the 2021 Plan under the heading “—2021 Incentive Award Plan—Securities Laws.” The general federal tax consequences of awards under the 2017 Plan are the same as those described above in the description of the 2021 Plan under the heading “—2021 Incentive Award Plan—Federal Income Tax Consequences.”

2021 Employee Stock Purchase Plan
In connection with this offering, we intend to adopt and ask our stockholders to approve the 2021 ESPP. The material terms of the 2021 ESPP, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the 2021 ESPP and, accordingly, this summary is subject to change. The 2021 ESPP will become effective on the day prior to the first public trading date of our common stock.

The 2021 ESPP is comprised of two distinct components in order to provide increased flexibility to grant options to purchase shares under the 2021 ESPP to U.S. and to non-U.S. employees. Specifically, the 2021 ESPP authorizes (1) the grant of options to U.S. employees that are intended to qualify for favorable U.S. federal tax treatment under Section 423 of the Code, (the Section 423 Component), and (2) the grant of options that are not intended to be tax-qualified under Section 423 of the Code to facilitate participation for employees located outside of the U.S. who do not benefit from favorable U.S. federal tax treatment and to provide flexibility to comply with non-U.S. law and other considerations (the Non-Section 423 Component). Where permitted under local law and custom, we expect that the Non-Section 423 Component will generally be operated and administered on terms and conditions similar to the Section 423 Component.

Shares Available for Awards; Administration
A total of shares of our common stock will initially be reserved for issuance under the 2021 ESPP. In addition, the number of shares available for issuance under the 2021 ESPP will be annually increased on January 1 of each calendar year beginning in 2022 and ending in and including 2031, by an amount equal to the lesser of

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(A) % of the shares outstanding on the final day of the immediately preceding calendar year and (B) such smaller number of shares as is determined by our board of directors, provided that no more than shares of our common stock may be issued under the 2021 ESPP. Our board of directors or a committee of our board of directors will administer and will have authority to interpret the terms of the 2021 ESPP and determine eligibility of participants. We expect that the compensation committee will be the initial administrator of the 2021 ESPP.

Eligibility

We expect that all of our employees will be eligible to participate in the 2021 ESPP. However, an employee may not be granted rights to purchase stock under our 2021 ESPP if the employee, immediately after the grant, would own (directly or through attribution) stock possessing 5% or more of the total combined voting power or value of all classes of our stock.

Grant of Rights

Stock will be offered under the 2021 ESPP during offering periods. The length of the offering periods under the 2021 ESPP will be determined by the plan administrator and may be up to twenty-seven months long. Employee payroll deductions will be used to purchase shares on each purchase date during an offering period. The purchase dates for each offering period will be the final trading day in the offering period. Offering periods under the 2021 ESPP will commence when determined by the plan administrator. The plan administrator may, in its discretion, modify the terms of future offering periods. In non-U.S. jurisdictions where participation in the 2021 ESPP through payroll deductions is prohibited, the plan administrator may provide that an eligible employee may elect to participate through contributions to the participant’s account under the 2021 ESPP in a form acceptable to the 2021 ESPP administrator in lieu of or in addition to payroll deductions.

The 2021 ESPP permits participants to purchase common stock through payroll deductions of up to a specified percentage of their eligible compensation. The plan administrator will establish a maximum number of shares that may be purchased by a participant during any offering period. In addition, no employee will be permitted to accrue the right to purchase stock under the Section 423 Component at a rate in excess of $25,000 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our common stock as of the first day of the offering period).

On the first trading day of each offering period, each participant will automatically be granted an option to purchase shares of our common stock. The option will expire at the end of the applicable offering period, and will be exercised at that time to the extent of the payroll deductions accumulated during the offering period. The purchase price of the shares, in the absence of a contrary designation, will be 85% of the fair market value of our common stock on the first trading day of the offering period or on the purchase date. Participants may voluntarily end their participation in the 2021 ESPP at any time during a specified period prior to the end of the applicable offering period, and will be paid their accrued payroll deductions that have not yet been used to purchase shares of common stock. Participation ends automatically upon a participant’s termination of employment.

A participant may not transfer rights granted under the 2021 ESPP other than by will or the laws of descent and distribution, and are generally exercisable only by the participant.

Certain Transactions

In the event of certain non-reciprocal transactions or events affecting our common stock, the plan administrator will make equitable adjustments to the 2021 ESPP and outstanding rights. In the event of certain unusual or non-recurring events or transactions, including a change in control, the plan administrator may provide for (1) either the replacement of outstanding rights with other rights or property or termination of outstanding rights in exchange for cash, (2) the assumption or substitution of outstanding rights by the successor or survivor corporation or parent or subsidiary thereof, if any, (3) the adjustment in the number and type of shares of stock subject to outstanding rights, (4) the use of participants’ accumulated payroll deductions to purchase stock on a new purchase date prior to the next scheduled purchase date and termination of any rights under ongoing offering periods or (5) the termination of all outstanding rights.
Plan Amendment
The plan administrator may amend, suspend or terminate the 2021 ESPP at any time. However, stockholder approval will be obtained for any amendment that increases the aggregate number or changes the type of shares that may be sold pursuant to rights under the 2021 ESPP or changes the corporations or classes of corporations whose employees are eligible to participate in the 2021 ESPP.

Securities Laws
The 2021 ESPP has been designed to comply with various securities laws in the same manner as described above in the description of the 2021 Plan.

Federal Income Taxes
The material federal income tax consequences of the 2021 ESPP under current federal income tax law are summarized in the following discussion, which deals with the general tax principles applicable to the 2021 ESPP. The following discussion is based upon laws, regulations, rulings and decisions now in effect, all of which are subject to change. Foreign, state and local tax laws, and employment, estate and gift tax considerations are not discussed due to the fact that they may vary depending on individual circumstances and from locality to locality.

The 2021 ESPP, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Section 423 of the Code. Under the applicable Code provisions, no income will be taxable to a participant until the sale or other disposition of the shares purchased under the 2021 ESPP. This means that an eligible employee will not recognize taxable income on the date the employee is granted an option under the 2021 ESPP (i.e., the first day of the offering period). In addition, the employee will not recognize taxable income upon the purchase of shares. Upon the sale or other disposition of the shares purchased under the 2021 ESPP, the participant will generally be subject to tax in an amount that depends upon the length of time such shares are held by the participant prior to disposing of them. If the shares are sold or disposed of more than two years from the first day of the offering period during which the shares were purchased and more than one year from the date of purchase, or if the participant dies while holding the shares, the participant (or his or her estate) will recognize ordinary income as the lesser of: (1) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price; or (2) an amount equal to 15% of the fair market value of the shares as of the first day of the offering period. Any additional gain will be treated as long-term capital gain. If the shares are sold for less than the purchase price, there is no ordinary income and the participating employee has a long-term capital loss for the difference between the sales price and the purchase price.

Director Compensation
From time to time, we have granted cash- and stock-based compensation to Dr. Yamada for his service as Chairman of our Board of Directors. We did not, however, grant any stock-based compensation to Dr. Yamada during 2020. We also pay Dr. Yamada an annual retainer of $100,000 for his service as Chairman of the Board.

In addition, we have reimbursed, and will continue to reimburse, our non-employee directors for their actual out-of-pocket costs and expenses incurred in connection with attending board meetings.
The following table summarizes compensation received by our non-employee directors during the year ended December 31, 2020. Mr. Simpson, our Chief Executive Officer, is also a member of our board of directors, but does not receive any additional compensation for his service as a director in addition to the compensation he receives as an employee. Mr. Simpson’s compensation is described further above.

<table>
<thead>
<tr>
<th>NAME</th>
<th>FEES EARNED OR PAID IN CASH ($)</th>
<th>OPTION AWARDS ($)</th>
<th>ALL OTHER COMPENSATION ($)</th>
<th>TOTAL ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tadataka Yamada, M.D.</td>
<td>100,000</td>
<td>—</td>
<td>—</td>
<td>100,000</td>
</tr>
<tr>
<td>Elisha P. Gould III</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Jason Hafler, Ph.D.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mark McDade</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Eric Moessinger</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The aggregate number of shares subject to stock options or restricted shares outstanding (including shares issued upon early exercise of options) at December 31, 2020 for the individuals who served as non-employee directors during 2020 was as follows:

<table>
<thead>
<tr>
<th>NAME</th>
<th>NUMBER OF SECURITIES UNDERLYING OPTIONS OUTSTANDING AT DECEMBER 31, 2020</th>
<th>NUMBER OF SECURITIES UNDERLYING SHARES OF RESTRICTED STOCK OUTSTANDING AT DECEMBER 31, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tadataka Yamada, M.D.</td>
<td>—</td>
<td>865,124</td>
</tr>
<tr>
<td>Elisha P. Gould III</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Jason Hafler, Ph.D.</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mark McDade</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Eric Moessinger</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

In connection with this offering, we intend to adopt and ask our stockholders to approve the initial terms of a non-employee director compensation program. The material terms of the non-employee director compensation program, as it is currently contemplated, are summarized below. Our board of directors is still in the process of considering the non-employee director compensation program and, accordingly, this summary is subject to change.

The non-employee director compensation program will provide for annual retainer fees and/or long-term equity awards for our non-employee directors. We expect each non-employee director will receive an annual retainer of $ , with our chairman of the board receiving an annual retainer of $ . Non-employee directors serving as the chairs of the audit, compensation and nominating and corporate governance committees will receive additional annual retainers of $ , $ and $ , respectively. Non-employee directors serving as members of the audit, compensation and nominating and corporate governance committees will receive additional annual retainers of $ , $ and $ , respectively. The non-employee directors will also receive initial grants of options to purchase shares of our common stock, vesting over three years, upon election to the board of directors, and thereafter annual grants of options to purchase shares of our common stock, vesting on the first to occur of (1) the first anniversary of the grant date or (2) the next occurring annual meeting of our stockholders.

Compensation under our non-employee director compensation program will be subject to the annual limits on non-employee director compensation set forth in the 2021 Plan, as described above. Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, subject to the annual limit on non-employee director compensation set forth in the 2021 Plan. As provided in the 2021 Plan, our board of directors or its authorized committee may make exceptions.
to this limit for individual non-employee directors in extraordinary circumstances, as the board of directors or its authorized committee may determine in its discretion, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation or in other compensation decisions involving non-employee directors.

**Limitations of Liability and Indemnification Matters**

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director’s duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation and our amended and restated bylaws also provide that if Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our amended and restated bylaws also provide that we shall have the power to indemnify our employees and agents to the fullest extent permitted by law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity, regardless of whether our amended and restated bylaws would permit indemnification. We have obtained directors’ and officers’ liability insurance.

We have entered into separate indemnification agreements with our directors and executive officers, in addition to indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, provide for indemnification of our directors and executive officers for expenses, judgments, fines and settlement amounts incurred by this person in any action or proceeding arising out of this person’s services as a director or executive officer or at our request. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and executive officers.

The above description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is not complete and is qualified in its entirety by reference to these documents, each of which is filed as an exhibit to the registration statement of which this prospectus is a part.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder’s investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.
CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following includes a summary of transactions since January 1, 2018 to which we have been a party in which the amount involved exceeded or will exceed the lesser of $120,000 and one percent of the average of our total assets at year-end for the last two completed fiscal years, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under “Executive and Director Compensation.” We also describe below certain other transactions with our directors, executive officers and stockholders.

Preferred Stock Financings

Series 1 Convertible Preferred Stock Financings
In December 2017, we entered into a Series 1 preferred stock purchase agreement, pursuant to which we issued and sold to investors in an initial closing in December 2017 and subsequent closings in February, March, April and August 2018 and January 2019, in private placements, an aggregate of 3,535,000 shares of Series 1 convertible preferred stock. The per share purchase price was $1.00, and we received gross proceeds of approximately $3.5 million. The father of Douglas Holtzman, Ph.D., our Chief Scientific Officer, purchased 150,000 shares of Series 1 convertible preferred stock in August 2018. In August 2019, all shares of Series 1 convertible preferred stock automatically converted into shares of Series A-2 convertible preferred stock in the Series A convertible preferred stock financing described below.

Series A Convertible Preferred Stock Financings
In August 2019, we entered into a Series A preferred stock purchase agreement, pursuant to which we issued and sold to investors in an initial closing and subsequent closing in August 2019 and February 2021, in private placements, an aggregate of 49,193,959 shares of Series A-1 convertible preferred stock. The per share purchase price was $0.9615, and we received gross proceeds of approximately $47.3 million. Additionally, in August 2019, all shares of Series 1 convertible preferred stock automatically converted into 4,949,794 shares of Series A-2 convertible preferred stock.

Series B Convertible Preferred Stock Financing
In March 2021, we entered into a Series B preferred stock purchase agreement, pursuant to which we issued and sold to investors, in a private placement, an aggregate of 32,958,612 shares of Series B-1 convertible preferred stock. The Series B-1 per share purchase price was $2.82172, and we received gross proceeds of approximately $93 million. Additionally, a convertible promissory note, with a principal amount of $6.5 million, automatically converted into 2,805,850 shares of Series B-2 convertible preferred stock, at a conversion price of $2.39846 per share.

The following table sets forth the aggregate number of shares acquired by the listed directors, executive officers or holders of more than 5% of our capital stock, or their affiliates. Each outstanding share of convertible preferred stock, including the shares identified in the table below, will convert into shares of common stock at a ratio of one-for-one immediately prior to the closing of this offering.

<table>
<thead>
<tr>
<th>PARTICIPANTS</th>
<th>SERIES A-1 CONVERTIBLE PREFERRED STOCK</th>
<th>SERIES A-2 CONVERTIBLE PREFERRED STOCK</th>
<th>SERIES B-1 CONVERTIBLE PREFERRED STOCK</th>
<th>SERIES B-2 CONVERTIBLE PREFERRED STOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% or Greater Stockholders (1)</td>
<td>12,480,498</td>
<td>—</td>
<td>1,063,181</td>
<td>—</td>
</tr>
<tr>
<td>Entities affiliated with Adams Street Partners, LLC (2)</td>
<td>12,480,498</td>
<td>—</td>
<td>354,393</td>
<td>—</td>
</tr>
<tr>
<td>Aventis, Inc. (3)</td>
<td>10,400,415</td>
<td>—</td>
<td>1,027,741</td>
<td>—</td>
</tr>
<tr>
<td>NanoDimension III, L.P. (4)</td>
<td>—</td>
<td>12,935,372</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Entities affiliated with RA Capital Management, L.P. (5)</td>
<td>12,480,498</td>
<td>—</td>
<td>1,275,817</td>
<td>—</td>
</tr>
<tr>
<td>Qiming US Healthcare Fund II, L.P. (6)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

(1) Additional details regarding these stockholders and their equity holdings are provided in “Principal Stockholders.”
Investors' Rights Agreement

We entered into an amended and restated investors' rights agreement in August 2019, as amended and restated in March 2021 (the IRA), with the holders of our convertible preferred stock and certain holders of our common stock, including the holders of more than 5% of our capital stock listed above as well as entities with which certain of our directors are affiliated. This agreement provides for certain rights relating to the registration of their shares of common stock issuable upon conversion of their convertible preferred stock and certain additional covenants made by us. Except for the registration rights (including the related provisions pursuant to which we have agreed to indemnify the parties to the IRA), all rights under this agreement will terminate upon closing of this offering. The registration rights will continue following this offering and will terminate five years after the closing of this offering. See the section titled “Description of Capital Stock—Registration Rights” for more information regarding these registration rights.

Voting Agreement

We entered into an amended and restated voting agreement in August 2019, as amended and restated in March 2021 (the Voting Agreement), with the holders of our convertible preferred stock and certain holders of our common stock, including the holders of more than 5% of our capital stock listed above as well as entities with which certain of our directors are affiliated, pursuant to which the following directors were each elected to serve as members on our board of directors and, as of the date of this prospectus, continue to so serve: Elisha P. Gould III, Jason Hafler, Ph.D., Peter Kolchinsky, Ph.D., Mark McDade, Eric Moessinger, Adam Simpson and Tadataka Yamada, M.D. Pursuant to the Voting Agreement, Mr. Simpson, as our Chief Executive Officer, serves on our board of directors as the CEO director. Mr. Gould, Dr. Hafler, Mr. McDade and Mr. Moessinger were initially selected to serve on our board of directors as representatives of the holders of our Series A-1 convertible preferred stock and Dr. Kolchinsky was initially selected to serve on our board of directors as a representative of the holders of our Series B-1 convertible preferred stock. Dr. Yamada was initially selected to serve as the chair of our board of directors as designated by a majority of our common and preferred stockholders, voting together as a single class.

The Voting Agreement will terminate upon the closing of this offering, and members previously elected to our board of directors pursuant to this agreement will continue to serve as directors until they resign, are removed or their successors are duly elected by holders of our common stock. The composition of our board of directors after this offering is described in more detail under “Management—Board Composition and Election of Directors.”

Right of Refusal and Co-Sale Agreement

We entered into an amended and restated right of first refusal and co-sale agreement in August 2019, as amended and restated in March 2021 (the ROFR Agreement), with entities with which certain of our directors are affiliates, which entities are referred to in the ROFR Agreement as “Key Holders”, and certain other holders of convertible preferred stock, including the holders of more than 5% of our capital stock listed above. Pursuant to the ROFR Agreement, we have a right of first refusal on certain transfers of our shares by the Key Holders, holders of our
convertible preferred stock have a secondary right of first refusal on such transfers, and such convertible preferred stockholders have a right of co-sale in respect of such transfers. The ROFR Agreement will terminate upon the completion of this offering.

**Equity Grants to Executive Officers and Directors**

We have granted restricted stock and stock options to certain of our executive officers and non-employee directors, as more fully described in the section titled “Executive and Director Compensation.”

**Employment Arrangements**

We have entered into employment letter agreements with our executive officers. For more information regarding these letter agreements, see the section titled “Executive and Director Compensation—Employment Letter Agreements with Our Executive Officers.”

**Director and Officer Indemnification**

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys’ fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person’s services as a director or executive officer.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by the Delaware General Corporation Law. Further, we have purchased a policy of directors’ and officers’ liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances. For further information, see “Executive and Director Compensation—Limitations of Liability and Indemnification Matters.”

**Policies and Procedures for Related Person Transactions**

Our board of directors will adopt a written related person transaction policy, to be effective upon the closing of this offering, setting forth the policies and procedures for the review and approval or ratification of related-person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds the lesser of $120,000 or one percent of the average of our total assets at year-end for the last two completed fiscal years, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm’s length transaction and the extent of the related person’s interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.
The following table sets forth information with respect to the beneficial ownership of our common stock as of April 30, 2021, and as adjusted to reflect the sale of shares of common stock in this offering, by:

- our named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which a person has sole or shared voting power or investment power. Applicable percentage ownership is based on 105,457,508 shares of common stock outstanding on April 30, 2021, which gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 89,908,215 shares of our common stock immediately prior to the closing of this offering and includes shares subject to forfeiture or a right of repurchase. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options or other rights held by such person that are currently exercisable or will become exercisable within 60 days of April 30, 2021 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed below is c/o Icosavax, Inc., 1616 Eastlake Avenue E., Suite 208, Seattle, Washington 98102. We believe, based on information provided to us, that each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

<table>
<thead>
<tr>
<th>NAME OF BENEFICIAL OWNER</th>
<th>NUMBER OF SHARES BENEFICIALLY OWNED BEFORE OFFERING</th>
<th>NUMBER OF SHARES BENEFICIALLY OWNED AFTER OFFERING</th>
<th>PERCENTAGE OF SHARES BENEFICIALLY OWNED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5% or Greater Stockholders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entities affiliated with Adams Street Partners, LLC (1)</td>
<td>13,543,679</td>
<td>12.8%</td>
<td></td>
</tr>
<tr>
<td>Aventis, Inc. (2)</td>
<td>12,834,891</td>
<td>12.2%</td>
<td></td>
</tr>
<tr>
<td>NanoDimension III, L.P. (3)</td>
<td>11,428,156</td>
<td>10.8%</td>
<td></td>
</tr>
<tr>
<td>Entities affiliated with RA Capital Management, L.P. (4)</td>
<td>12,935,372</td>
<td>12.3%</td>
<td></td>
</tr>
<tr>
<td>Qiming US Healthcare Fund II, L.P. (5)</td>
<td>13,756,315</td>
<td>13.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Named Executive Officers and Directors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adam Simpson (6)</td>
<td>3,281,526</td>
<td>3.1%</td>
<td></td>
</tr>
<tr>
<td>Douglas Holtzman, Ph.D. (7)</td>
<td>1,219,377</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>Niranjan Kanasa-thasan, M.D. (8)</td>
<td>537,237</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Cassia Cearley, Ph.D. (9)</td>
<td>187,772</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Tadataka Yamada, M.D. (10)</td>
<td>5,122,290</td>
<td>4.8%</td>
<td></td>
</tr>
<tr>
<td>Elisha P. Gould III (1)</td>
<td>13,543,679</td>
<td>12.8%</td>
<td></td>
</tr>
<tr>
<td>Jason Hafler, Ph.D. (2)</td>
<td>12,834,891</td>
<td>12.2%</td>
<td></td>
</tr>
<tr>
<td>Peter Kolchinsky, Ph.D. (4)</td>
<td>12,935,372</td>
<td>12.3%</td>
<td></td>
</tr>
<tr>
<td>Mark McDade (5)</td>
<td>13,756,315</td>
<td>13.0%</td>
<td></td>
</tr>
<tr>
<td>Eric Moessinger (3)</td>
<td>11,428,156</td>
<td>10.8%</td>
<td></td>
</tr>
<tr>
<td>All executive officers and directors as a group (11 persons) (11)</td>
<td>75,268,373</td>
<td>69.8%</td>
<td></td>
</tr>
</tbody>
</table>

* Less than 1%.

(1) Consists of 3,940,387 shares held by Adams Street Venture/Growth Fund VI LP (AS VI), 3,808,942 shares held by Adams Street Growth Equity Fund VII LP (AS GE VII), 1,130,895 shares held by Adams Street 2016 Direct Venture/Growth Fund LP (AS 2016),

(2) Aventis, Inc. is a corporation incorporated in the Commonwealth of Pennsylvania and a wholly owned subsidiary of Sanofi, a French Corporation and the ultimate holding company of a group of business entities (the Sanofi Group). Sanofi Ventures is a business unit of the Sanofi Group in charge of managing the Sanofi Group Ventures Investments. Dr. Hafler is a U.S. based employee of Sanofi, serves as the managing director of Sanofi Ventures and has sole voting and investment control over the shares held by Aventis, Inc. Dr. Hafler disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The address of Sanofi Ventures is 50 Binney Street, Cambridge, Massachusetts 02142.

(3) NanoDimension III Management Limited (ND Management) is the general partner of NanoDimension III GP Limited Partnership, which in turn is the general partner of NanoDimension III, L.P. (ND III). ND Management is wholly owned by The Eiger Trust, and Mr. Moessinger does not have control over the shares held by ND III. ND Capital and Mr. Moessinger disclaim beneficial ownership of the shares except to the extent of their pecuniary interest therein. The address of ND Capital is Governor’s Square, Unit 3-213-6, P.O. Box 526 WB, 23, Lime Tree Bay Ave, Grand Cayman, KY1-1302, Cayman Islands.

(4) Consists of 10,955,066 shares held by RA Capital Healthcare Fund, L.P. (RA Healthcare) and 1,940,306 shares held by RA Capital Nexus Fund II, L.P. (Nexus II). RA Capital Management, L.P. is the investment manager for RA Healthcare and Nexus II. The general partner of RA Capital Management, L.P. is RA Capital Management GP, LLC, of which Peter Kolchinsky, Ph.D. and Rajeev Shah are the managing members. RA Capital Management, L.P., RA Capital Management GP, LLC, Peter Kolchinsky, Ph.D. and Rajeev Shah may be deemed to have voting and investment power over the shares held of record by RA Healthcare and Nexus II. RA Capital Management, L.P., RA Capital Management GP, LLC, Peter Kolchinsky, Ph.D. and Rajeev Shah disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address of the entities listed above is 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.

(5) Qiming US Healthcare Fund II, L.P. (QHC II) is a venture capital firm with offices in Seattle, WA, San Francisco, CA, and Cambridge, MA. The general partner of QHC II is Qiming U.S. Healthcare GP II, LLC (QHC GP II). Gary Rieschel and Mark McDade are the managing members of QHC GP II and have voting and investment control over the shares held by QHC II. Each of QHC GP II, Mr. Rieschel and Mr. McDade may be deemed to beneficially own the shares beneficially owned by Qiming U.S. Healthcare Fund II, L.P., but each disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The address for QHC II and these individuals is 11100 NE 8th St., Suite 200, Bellevue, Washington 98004.

(6) Includes (i) 3,122,290 shares held by a family trust of Mr. Simpson, for which he is a co-trustee, and (ii) 159,236 shares underlying options held by Mr. Simpson that are exercisable as of April 30, 2021 or will become exercisable within 60 days after such date.

(7) Includes 217,925 shares over which Dr. Holtzman has power-of-attorney (POA). As POA, Dr. Holtzman holds voting and dispositive control over such shares. Dr. Holtzman disclaims beneficial ownership of the shares over which he has POA except to the extent of any pecuniary interest therein.

(8) Includes 36,511 shares underlying options held by Dr. Kanesathasan that are exercisable as of April 30, 2021 or will become exercisable within 60 days after such date.

(9) Includes 41,727 shares underlying options held by Dr. Cearley that are exercisable as of April 30, 2021 or will become exercisable within 60 days after such date.

(10) Includes (i) 2,606,579 shares of common stock held by a family trust of Dr. Yamada, for which he is a co-trustee, and (ii) 2,000,000 shares underlying options held by Dr. Yamada that are exercisable as of April 30, 2021 or will become exercisable within 60 days after such date.

(11) Consists of the shares described in footnotes 1 through 10 above.
DESCRIPTION OF CAPITAL STOCK

General
The following description summarizes some of the terms of our amended and restated certificate of incorporation and amended and restated bylaws, our investors' rights agreement and of the Delaware General Corporation Law. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and our investors' rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

Following the closing of this offering, our authorized capital stock will consist of shares of common stock, $0.0001 par value per share, and shares of preferred stock, $0.0001 par value per share.

Common Stock
As of March 31, 2020, there were shares of our common stock outstanding and held of record by stockholders, including shares of restricted common stock which are subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 89,908,215 shares of common stock, which will automatically occur immediately prior to the closing of this offering. Based on the number of shares of common stock outstanding as of March 31, 2020, and further assuming the issuance by us of shares of common stock in this offering, there will be shares of common stock outstanding upon the closing of this offering. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the outstanding shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose, other than any directors that holders of any preferred stock we may issue may be entitled to elect. Subject to supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our amended and restated certificate of incorporation. See below in "—Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws—Amendment of Charter Provisions."

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared by the board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the assets legally available for distribution to stockholders after the payment of or provision for all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking funds provisions applicable to the common stock. All outstanding shares of common stock are, and the common stock to be outstanding upon the closing of this offering will be, duly authorized, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock
Upon the closing of this offering, all of our previously outstanding shares of convertible preferred stock will have been converted into common stock, there will be no authorized shares of our previously outstanding convertible preferred stock, and we will have no shares of preferred stock outstanding. Under the terms of our amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, our board of directors has the authority, without further action by our stockholders, to issue up to shares of
preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the dividend,
voting and other rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions
thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then
outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power
or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible
acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deterring or preventing a change in our control
and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no
current plans to issue any shares of preferred stock.

Options
As of March 31, 2021, options to purchase shares of our common stock were outstanding, of which were vested and exercisable as of that date. For additional information regarding the terms of the 2017 Plan, see “Executive and Director Compensation—Incentive Award Plans—2017 Equity Incentive Plan.”

Registration Rights
As of March 31, 2021, upon the closing of this offering holders of shares of our common stock, which includes all of the shares of
common stock issuable upon the automatic conversion convertible preferred stock immediately prior to the closing of this offering, will be entitled
to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to a stockholders
agreement by and among us and certain investors. The registration of shares of common stock as a result of the following rights being exercised
would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared
effective.

Demand Registration Rights
Form S-1
If at any time beginning six months following the effective date of the registration statement of which this prospectus forms a part, the holders of a
majority of the registrable securities that are party to the IRA request in writing that we effect a registration with respect to all or a part of the
registrable securities then outstanding where the aggregate price to the public of the offering is $10.0 million or more, we may be required to
provide notice to all holders of registrable securities party to the IRA and to use commercially reasonable efforts to effect such registration;
provided, however, that we will not be required to effect such a registration if, among other things, within the preceding 12 months, we have
already effected two registrations for the holders of registrable securities in response to these demand registration rights.

Form S-3
If at any time we become entitled under the Securities Act to register our shares on Form S-3, the holders of at least twenty percent of the
registrable securities that are party to the IRA request in writing that we effect a registration with respect to all or a part of the registrable securities
then outstanding where the price to the public of the offering is $3.0 million or more, we may be required to provide notice to all holders of
registrable securities party to the IRA and to use commercially reasonable efforts to effect such registration; provided, however, that we will not be
required to effect such a registration if, among other things, within the preceding 12 months, we have already effected two registrations on Form
S-3 for the holders of registrable securities.

If the holders requesting registration intend to distribute their shares by means of an underwriting, the underwriter of such offering will have the
right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

Piggyback Registration Rights
If at any time following the closing of this offering we propose to register any shares of our common stock under the Securities Act, subject to
certain exceptions, the holders of registrable securities party to the IRA will be entitled to notice of the registration and to include their shares of
registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have
the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.
Indemnification
Our investors’ rights agreement contains customary cross indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in a registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expenses
Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling securityholders, blue sky fees and expenses and the expenses of any special audits incident to the registration.

Termination of Registration Rights
The registration rights terminate five years after the closing of this offering.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws
Some provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Undesignated Preferred Stock
The ability of our board of directors, without action by the stockholders, to issue up to _ shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

Stockholder Meetings
Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board of directors, chief executive officer or president, or by a resolution adopted by a majority of our board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals
Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent
Our amended and restated certificate of incorporation and amended and restated bylaws eliminate the right of stockholders to act by written consent without a meeting.

Staggered Board of Directors
Our amended and restated bylaws provides that our board of directors will be divided into three classes. The directors in each class will serve for a three-year term, with one class being elected each year by our stockholders. For more information on the classified board of directors, see “Management—Board Composition and Election of Directors.” This system of electing directors may tend to discourage a third party from attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.
Removal of Directors
Our amended and restated certificate of incorporation provides that no member of our board of directors may be removed from office except for cause and, in addition to any other vote required by law, upon the approval of not less than two thirds of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

Stockholders Not Entitled to Cumulative Voting
Our amended and restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

Delaware Anti-Takeover Statute
We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed to be “interested stockholders” from engaging in a “business combination” with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an “interested stockholder” is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

Choice of Forum
Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders, creditors or other constituents; (iii) any action asserting a claim against us arising pursuant to any provision of the General Corporation Law of the State of Delaware or our amended and restated certificate of incorporation or amended and restated bylaws; (iv) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws; or (v) any action asserting a claim governed by the internal affairs doctrine. The provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, our amended and restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. In any case, stockholders will not be deemed to have waivered our compliance with the federal securities laws and the rules and regulations thereunder. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. Our amended and restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to this choice of forum provision.

Amendment of Charter Provisions
The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least two thirds of the total voting power of all of our outstanding voting stock.

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or
rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board of directors and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock will be . The transfer agent and registrar’s address is .

**The Nasdaq Global Market Listing**

We intend to apply to have our common stock listed on the Nasdaq Global Market under the symbol “ICVX.”

**Limitations of Liability and Indemnification Matters**

For a discussion of liability and indemnification, see “Executive and Director Compensation—Limitations of Liability and Indemnification Matters.”

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SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although we intend to apply to have our common stock listed on Nasdaq, we cannot assure you that there will be an active public market for our common stock.

Based on the number of shares of our common stock outstanding as of March 31, 2020, and assuming (i) the issuance of shares in this offering, (ii) the automatic conversion of all of our outstanding shares of convertible preferred stock into 89,908,215 shares of common stock and the related reclassification of the carrying value of the convertible preferred stock to permanent equity upon the closing of this offering, (iii) no exercise of the underwriters’ option to purchase additional shares of common stock and (iv) no exercise of outstanding options, we will have outstanding an aggregate of shares of common stock immediately following this offering.

Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our “affiliates,” as that term is defined in Rule 144 under the Securities Act. Shares purchased by our affiliates would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining shares of common stock will be “restricted securities,” as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration, such as under Rule 144 or 701 under the Securities Act, each of which is summarized below. We expect that substantially all of these shares will be subject to the 180-day lock-up period under the lock-up agreements described below.

Lock-Up Agreements

We, our officers, directors and holders of all or substantially all of our securities, have agreed with the underwriters that for a period of 180 days, after the date of this prospectus, subject to specified exceptions, we or they will not sell or offer to sell any shares or related securities currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by the holder or family member, enter into any swap, make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any shares or related securities, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration, or publicly announce any intention to do any of the foregoing. Upon expiration of the lock-up period, certain of our stockholders will have the right to require us to register their shares under the Securities Act. See “—Registration Rights” below and “Description of Capital Stock—Registration Rights.”

Jefferies LLC, Cowen and Company, LLC and Evercore Group, L.L.C. may, in their sole discretion and at any time or from time to time before the termination of the lock-up period, in certain cases without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the lock-up period.

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Rule 10b5-1 Trading Plans

Following the closing of this offering, certain of our officers, directors and significant stockholders may adopt written plans, known as Rule 10b5-1 trading plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis to diversify their assets and investments. Under these 10b5-1 trading plans, a broker may execute trades pursuant to parameters established by the officer, director or stockholder when entering into the plan, without further direction from such officer, director or stockholder. Such sales would not commence until the expiration of the applicable lock-up agreements entered into by such officer, director or stockholder in connection with this offering.
Rule 144

Affiliate Resales of Restricted Securities
In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in “broker’s transactions” or certain “riskless principal transactions” or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume in our common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the SEC and Nasdaq concurrently with either the placing of a sale order with the broker or the execution of a sale directly with a market maker.

Non-Affiliate Resales of Restricted Securities
In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701
In general, under Rule 701, any of an issuer’s employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

Equity Plans
We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our equity incentive plans and employee stock purchase plan. We expect to file the registration statement covering shares offered pursuant to these stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144.

Registration Rights
Upon the closing of this offering holders of shares of our common stock, which includes all of the shares of common stock issuable upon the automatic conversion of our convertible preferred stock into 89,908,215 shares of our common stock immediately prior to the closing of this offering, will be entitled to various rights with respect to the registration of these shares under the Securities Act upon the closing of this offering. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchase by our affiliates. See “Description of Capital Stock—Registration Rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.
MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (the Code) Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the IRS) in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder’s particular circumstances, including the impact of the alternative minimum tax or the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an “applicable financial statement” (as defined in the Code);
- tax-qualified retirement plans; and
- “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.
Definition of a Non-U.S. Holder

For purposes of this discussion, a “Non-U.S. Holder” is any beneficial owner of our common stock that is neither a “U.S. person” nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (i) is subject to the primary supervision of a U.S. court and the control of one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code), or (ii) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section titled “Dividend Policy,” we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder’s adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in “—Sale or Other Taxable Disposition.”

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder of our common stock will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). If a Non-U.S. Holder holds the stock through a financial institution or other agent acting on the Non-U.S. Holder’s behalf, the Non-U.S. Holder will be required to provide appropriate documentation to the agent, who then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment or fixed base in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.
Sale or Other Taxable Disposition

A Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment or fixed base in the United States to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest (USRPI) by reason of our status as a U.S. real property holding corporation (USRPHC) for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

A Non-U.S. Holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on gain realized upon the sale or other taxable disposition of our common stock, which may be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to U.S. federal income tax if our common stock is “regularly traded,” as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually or constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder’s holding period.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any distributions on our common stock paid to the Non-U.S. Holder, regardless of whether such distributions constitute dividends or whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

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Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder’s U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts
Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections are commonly referred to as the Foreign Account Tax Compliance Act (FATCA) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or subject to the proposed Treasury Regulations discussed below, gross proceeds from the sale or other disposition of, our common stock paid to a “foreign financial institution” or a “non-financial foreign entity” (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any “substantial United States owners” (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in clause (i) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain “specified United States persons” or “United States owned foreign entities” (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign entities located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA would also have applied to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers (including applicable withholding agents) generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.
UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated , 2021, among us, Jefferies LLC, Cowen and Company, LLC, Evercore Group, L.L.C. and William Blair & Company, L.L.C., as the representatives of the underwriters named below, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the respective number of shares of common stock shown opposite its name below:

<table>
<thead>
<tr>
<th>UNDERWRITER</th>
<th>NUMBER OF SHARES</th>
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<tbody>
<tr>
<td>Jefferies LLC</td>
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<tr>
<td>Cowen and Company, LLC</td>
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<tr>
<td>Evercore Group, L.L.C.</td>
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<tr>
<td>William Blair &amp; Company, L.L.C.</td>
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<tr>
<td><strong>Total</strong></td>
<td>**</td>
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</table>

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers’ certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock subject to their acceptance of the shares of common stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Commission and Expenses
The underwriters have advised us that they propose to offer the shares of common stock to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers, which may include the underwriters, at that price less a concession not in excess of $ per share of common stock. After the offering, the initial public offering price and concession to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.
The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase additional shares.

<table>
<thead>
<tr>
<th>PER SHARE</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>WITH/OUT OPTION TO PURCHASE ADDITIONAL SHARES</td>
<td>WITH/OUT OPTION TO PURCHASE ADDITIONAL SHARES</td>
</tr>
<tr>
<td>Public offering price</td>
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</tr>
<tr>
<td>Underwriting discounts and commissions paid by us</td>
<td>$</td>
</tr>
<tr>
<td>Proceeds to us, before expenses</td>
<td>$</td>
</tr>
</tbody>
</table>

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $ xxx. We have also agreed to pay the filing fees incident to, and the fees and disbursements of counsel for the underwriters in connection with the required review by the Financial Industry Regulatory Authority, Inc. in an amount of up to $ xxx.

**Determination of Offering Price**

Prior to this offering, there has not been a public market for our common stock. Consequently, the initial public offering price for our common stock will be determined by negotiations between us and the representatives. Among the factors to be considered in these negotiations will be prevailing market conditions, our financial information, market valuations of other companies that we and the underwriters believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

We offer no assurances that the initial public offering price will correspond to the price at which the common stock will trade in the public market subsequent to the offering or that an active trading market for the common stock will develop and continue after the offering.

**Listing**

We intend to apply to have our common stock listed on the Nasdaq Global Market under the trading symbol “ICVX”.

**Stamp Taxes**

If you purchase shares of common stock offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

**Option to Purchase Additional Shares**

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of xxx shares from us at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter’s initial purchase commitment as indicated in the table above. This option may be exercised only if the underwriters sell more shares than the total number set forth on the cover page of this prospectus.

**No Sales of Similar Securities**

We, our officers, directors and holders of all or substantially all our outstanding capital stock and other securities have agreed, subject to specified exceptions, not to directly or indirectly:

- sell or offer to sell any shares or related securities currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by the holder or family member, or
- enter into any swap, or
otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially, or publicly announce an intention to do any of the foregoing for a period of 180 days after the date of this prospectus without the prior written consent of Jefferies LLC, Cowen and Company, LLC and Evercore Group, L.L.C. (the Lock-up Representatives).

This restriction terminates after the close of trading of the common stock on and including the 180th day after the date of this prospectus.

The Lock-up Representatives may, in their sole discretion and at any time or from time to time before the termination of the 180-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our shareholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

Stabilization

The underwriters have advised us that they, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either "covered" short sales or "naked" short sales.

"Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

"Naked" short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriters’ purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on the Nasdaq Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker’s bid, that bid must then be lowered when specified purchase limits are exceeded.
Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their respective affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own accounts and for the accounts of their respective customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Disclaimers About Non-U.S. Jurisdictions

Canada

Resale Restrictions

The distribution of shares of our common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta, Manitoba, New Brunswick and Nova Scotia British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares of common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian Purchasers

By purchasing shares of common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an “accredited investor” as defined under National Instrument 45-106—Prospectus Exemptions or Section 73.3(1) of the Securities Act (Ontario), as applicable,
- the purchaser is a “permitted client” as defined in National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations,
where required by law, the purchaser is purchasing as principal and not as agent, and
the purchaser has reviewed the text above under Resale Restrictions.

Conflicts of Interest
Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—Underwriting Conflicts from having to provide certain conflict of interest disclosure in this document.

Statutory Rights of Action
Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Enforcement of Legal Rights
All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment
Canadian purchasers of shares of common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of the shares of common stock for investment by the purchaser under relevant Canadian legislation.

Australia
This prospectus is not a disclosure document for the purposes of Australia’s Corporations Act 2001 (Cth) of Australia (the Australian Corporations Act), has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

You confirm and warrant that you are either:

- a “sophisticated investor” under section 708(8)(a) or (b) of the Australian Corporations Act;
- a “sophisticated investor” under section 708(8)(c) or (d) of the Australian Corporations Act and that you have provided an accountant’s certificate to the Company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Australian Corporations Act and related regulations before the offer has been made;
- a person associated with the Company under Section 708(12) of the Australian Corporations Act; or
- a “professional investor” within the meaning of section 708(11)(a) or (b) of the Australian Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Australian Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Australian Corporations Act.
European Economic Area

In relation to each Member State of the European Economic Area (each, a Relevant State), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which have been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the shares may be offered to the public in that Relevant State at any time:

- to any legal entity which is a “qualified investor” as defined under Article 2 of the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the underwriters or the underwriters nominated by us for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of common shares shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer common shares to the public” in relation to the common shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and the common shares to be offered so as to enable an investor to decide to purchase or subscribe to the common shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (SFO) and any rules made under that Ordinance; or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong (CO) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968 (the Israeli Securities Law) and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the shares is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum to the Israeli Securities Law (the Israeli Addendum), consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Israeli Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Israeli Addendum, for the accounts of their clients who are investors listed in the Israeli Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Israeli Addendum, are aware of the meaning of same and agree to it.
Japan
The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended) (FIEL), and the underwriters will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore
This prospectus has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland
The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (SIX) or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.
No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the Shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
(c) in any other circumstances falling within Section 86 of the Financial Services and Markets Act of 2002 (the FSMA).

provided that no such offer of the shares shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

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LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP, San Diego, California. Certain attorneys of Latham & Watkins LLP own an aggregate of 145,284 shares of our convertible preferred stock, which will convert into an aggregate of 145,284 shares of our common stock immediately prior to the closing of this offering. The underwriters are being represented by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York.
EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements as of December 31, 2020 and 2019, and for each of the two years in the period ended December 31, 2020, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP’s report, given on their authority as experts in accounting and auditing.
WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon the closing of this offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Exchange Act. The SEC maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is www.sec.gov.

Upon the closing of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available at the website of the SEC referred to above. We maintain a website at www.icosavax.com. Upon the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock.
REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Icosavax, Inc.:

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Icosavax, Inc. (the “Company”) as of December 31, 2019 and 2020, the related statements of operations and comprehensive loss, convertible preferred stock and stockholders’ deficit and cash flows for the years then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2020, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2019.

Seattle, Washington
May 14, 2021
ICOSAVAX, INC.

Balance Sheets

(in thousands, except share and par value data)

<table>
<thead>
<tr>
<th></th>
<th>DECEMBER 31, 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$23,079</td>
<td>$13,114</td>
</tr>
<tr>
<td>Restricted cash</td>
<td>—</td>
<td>2,384</td>
</tr>
<tr>
<td>Prepaid expenses and other current assets</td>
<td>209</td>
<td>662</td>
</tr>
<tr>
<td>Total current assets</td>
<td>23,288</td>
<td>16,160</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>—</td>
<td>10</td>
</tr>
<tr>
<td>Total assets</td>
<td>$23,288</td>
<td>$16,170</td>
</tr>
</tbody>
</table>

| **Liabilities, convertible preferred stock, and stockholders’ deficit** |     |
| Current liabilities: |           |
| Accounts payable | $799 | $1,918 |
| Accrued and other current liabilities | 424 | 1,532 |
| Deferred revenue | — | 2,384 |
| Total current liabilities | 1,223 | 5,834 |
| Long-term convertible promissory note | — | 4,947 |
| Embedded derivative liability | — | 1,604 |
| Other noncurrent liabilities | 246 | 426 |
| Total liabilities | 1,469 | 12,811 |

| Commitments and contingencies (Note 2) |     |
| Convertible preferred stock, $0.0001 par value; 54,039,749 shares authorized at December 31, 2019 and 2020; 32,198,879 shares issued and outstanding at December 31, 2019 and 2020; $30,007 aggregate liquidation preference at December 31, 2019 and 2020 | 30,062 | 30,062 |

| Stockholders’ deficit: |     |
| Common stock, $0.001 par value; 78,000,000 shares authorized at December 31, 2019 and 2020; 14,081,396 and 14,947,833 shares issued as of December 31, 2019 and December 31, 2020, respectively; 7,903,232 and 10,967,869 shares outstanding as of December 31, 2019 and December 31, 2020, respectively | 1 | 2 |
| Additional paid-in capital | — | 393 |
| Accumulated deficit | (8,244) | (27,098) |
| Total stockholders’ deficit | (8,243) | (26,703) |
| Total liabilities, convertible preferred stock and stockholders’ deficit | $23,288 | $16,170 |

See accompanying notes to financial statements

F-3
ICOSAVAX, INC.

Statements of Operations and Comprehensive Loss
(in thousands, except share data)

<table>
<thead>
<tr>
<th></th>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Grant revenue</td>
<td>$</td>
</tr>
<tr>
<td>Operating expenses:</td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>$4,157</td>
</tr>
<tr>
<td>General and administrative</td>
<td>1,241</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>5,398</td>
</tr>
<tr>
<td>Loss from operations</td>
<td>(5,398)</td>
</tr>
<tr>
<td>Other income (expense):</td>
<td></td>
</tr>
<tr>
<td>Change in fair value of embedded derivative liability</td>
<td>—</td>
</tr>
<tr>
<td>Interest and other income (expense)</td>
<td>101</td>
</tr>
<tr>
<td>Total other income (expense)</td>
<td>101</td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>$ (5,297)</td>
</tr>
<tr>
<td>Series 1 preferred stock dividends</td>
<td>(272)</td>
</tr>
<tr>
<td>Series 1 preferred stock extinguishment</td>
<td>(400)</td>
</tr>
<tr>
<td>Net loss attributable to common stockholders</td>
<td>$ (5,969)</td>
</tr>
<tr>
<td>Net loss per share attributable to common stockholders, basic and diluted</td>
<td>$ (0.90)</td>
</tr>
<tr>
<td>Weighted-average shares of common stock outstanding, basic and diluted</td>
<td>6,600,083</td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements
ICOSAVAX, INC.

Statements of Convertible Preferred Stock and Stockholders’ Deficit
(in thousands, except share amounts)

<table>
<thead>
<tr>
<th></th>
<th>CONVERTIBLE PREFERRED STOCK</th>
<th>COMMON STOCK</th>
<th>ADDITIONAL PAID-IN CAPITAL</th>
<th>ACCUMULATED DEFICIT</th>
<th>TOTAL STOCKHOLDERS' DEFICIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares released from restriction upon vesting of early-exercised stock options</td>
<td>2,935,000</td>
<td>$2,891</td>
<td>5,307,619</td>
<td>$1</td>
<td>9</td>
</tr>
<tr>
<td>Vesting of shares of restricted common stock</td>
<td>—</td>
<td>—</td>
<td>644,402</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock for cash of $1.00 per share net of $13,000 in issuance costs</td>
<td>600,000</td>
<td>587</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Dividends declared</td>
<td>—</td>
<td>272</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock for cash of $0.9615 per share net of $298,000 of issuance costs</td>
<td>27,249,085</td>
<td>25,912</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock upon conversion of earlier-issued upon qualified financing</td>
<td>1,414,794</td>
<td>400</td>
<td>—</td>
<td>—</td>
<td>(83)</td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>72</td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Shares released from restriction upon vesting of early-exercised stock options</td>
<td>—</td>
<td>—</td>
<td>1,113,427</td>
<td>1</td>
<td>136</td>
</tr>
<tr>
<td>Vesting of shares of restricted common stock</td>
<td>—</td>
<td>—</td>
<td>1,951,210</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>257</td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
</tr>
<tr>
<td>Balance at December 31, 2018</td>
<td>2,935,000</td>
<td>$2,891</td>
<td>5,307,619</td>
<td>$1</td>
<td>9</td>
</tr>
<tr>
<td>Shares released from restriction upon vesting of early-exercised stock options</td>
<td>—</td>
<td>—</td>
<td>644,402</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
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<td>—</td>
<td>—</td>
<td>1,951,211</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Dividends declared</td>
<td>—</td>
<td>272</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock for cash of $1.00 per share net of $13,000 in issuance costs</td>
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<td>587</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Dividends declared</td>
<td>—</td>
<td>272</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock for cash of $0.9615 per share net of $298,000 of issuance costs</td>
<td>27,249,085</td>
<td>25,912</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of convertible preferred stock upon conversion of earlier-issued upon qualified financing</td>
<td>1,414,794</td>
<td>400</td>
<td>—</td>
<td>—</td>
<td>(83)</td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>72</td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Shares released from restriction upon vesting of early-exercised stock options</td>
<td>—</td>
<td>—</td>
<td>1,113,427</td>
<td>1</td>
<td>136</td>
</tr>
<tr>
<td>Vesting of shares of restricted common stock</td>
<td>—</td>
<td>—</td>
<td>1,951,210</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>257</td>
</tr>
<tr>
<td>Net loss and comprehensive loss</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
<td>Shares</td>
<td>Amount</td>
</tr>
<tr>
<td>Balance at December 31, 2019</td>
<td>32,198,879</td>
<td>$30,062</td>
<td>10,967,869</td>
<td>$2</td>
<td>393</td>
</tr>
</tbody>
</table>
| See accompanying notes to financial statements

F-5
## ICOSAVAX, INC.

### Statements of Cash Flows

(in thousands)

<table>
<thead>
<tr>
<th>Years Ended December 31</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating activities:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net loss</td>
<td>$(5,297)</td>
<td>$(18,854)</td>
</tr>
<tr>
<td>Adjustments to reconcile net loss to cash used in operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock-based compensation</td>
<td>72</td>
<td>257</td>
</tr>
<tr>
<td>Depreciation</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Non-cash interest expense</td>
<td>—</td>
<td>417</td>
</tr>
<tr>
<td>Change in fair value of embedded derivative liability</td>
<td>—</td>
<td>(187)</td>
</tr>
<tr>
<td>Changes in operating assets and liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepaid and other current assets</td>
<td>(45)</td>
<td>(453)</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>452</td>
<td>1,119</td>
</tr>
<tr>
<td>Accrued and other current liabilities</td>
<td>249</td>
<td>1,108</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>—</td>
<td>2,384</td>
</tr>
<tr>
<td>Net cash used in operating activities</td>
<td>(4,569)</td>
<td>(14,208)</td>
</tr>
<tr>
<td><strong>Investing activities:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchases of property and equipment</td>
<td>—</td>
<td>(11)</td>
</tr>
<tr>
<td>Net cash used in investing activities</td>
<td>—</td>
<td>(11)</td>
</tr>
<tr>
<td><strong>Financing activities:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from issuance of convertible promissory notes, net of issuance costs</td>
<td>—</td>
<td>6,464</td>
</tr>
<tr>
<td>Proceeds from early exercise of stock options</td>
<td>243</td>
<td>174</td>
</tr>
<tr>
<td>Proceeds from issuance of convertible preferred stock</td>
<td>26,499</td>
<td>—</td>
</tr>
<tr>
<td>Net cash provided by financing activities</td>
<td>26,742</td>
<td>6,638</td>
</tr>
<tr>
<td>Net increase (decrease) in cash and restricted cash</td>
<td>22,173</td>
<td>(7,581)</td>
</tr>
<tr>
<td>Cash and restricted cash at beginning of period</td>
<td>906</td>
<td>23,079</td>
</tr>
<tr>
<td>Cash and restricted cash at end of period</td>
<td>$23,079</td>
<td>$15,498</td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements

F-6
1. Description of Business

Organizations

Icosavax, Inc. (the “Company”) was incorporated in the state of Delaware on November 1, 2017, and is located in Seattle, Washington. The Company is focused on the research and development of vaccines against infectious diseases. The Company was founded on computationally designed virus-like particle technology, exclusively licensed for a variety of infectious disease indications from the Institute for Protein Design at the University of Washington.

The Company's business involves inherent risks. These risks include, among others, dependence on key personnel, licensors and third-party service providers, patentability of the Company’s products and processes, and clinical efficacy of the Company’s products under development. Any of the technologies covering the Company's existing products under development could become obsolete or diminished in value by discoveries and developments at other organizations.

Liquidity

The Company had an accumulated deficit of $27.1 million, cash of $13.1 million, and restricted cash of $2.4 million at December 31, 2020.

In February 2021, the Company issued 21,944,874 shares of its Series A-1 convertible preferred stock for gross proceeds of $21.1 million. In March 2021, the Company issued 35,764,462 shares of Series B preferred stock for gross proceeds of $93.0 million, including conversion of a convertible promissory note of $6.5 million and accrued interest thereon. As a result of these financing activities, management believes the Company has sufficient capital to execute its strategic plan and fund operations through at least the next twelve months from the date these financial statements are issued.

The Company has devoted substantially all of its resources to organizing and staffing the Company, business planning, raising capital, in-licensing intellectual property rights, developing vaccines candidates, scaling up manufacturing of vaccine candidates, and preparing for our ongoing and planned preclinical studies and clinical trials. The Company has a limited operating history, and the sales and income potential of its business is unproven. The Company has incurred net losses and negative cash flows from operating activities since its inception and expects to continue to incur net losses into the foreseeable future as it continues the development of its vaccine candidates. From inception to December 31, 2020, the Company has funded its operations through the issuance of convertible promissory notes and sale of its convertible preferred stock.

As the Company continues to pursue its business plan, it expects to finance its operations through equity offerings, debt financings or other capital sources, including potential strategic collaborations, licenses, and other similar arrangements. However, there can be no assurance that any additional financing or strategic transactions will be available to the Company on acceptable terms, if at all. If events or circumstances occur such that the Company does not obtain additional funding, it may need to delay, reduce or eliminate its product development or future commercialization efforts, which could have a material adverse effect on the Company’s business, results of operations or financial condition. The accompanying financial statements do not include any adjustments that might be necessary if the Company were unable to continue as a going concern.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification (“ASC”) and Accounting Standards Updates (“ASU”) promulgated by the Financial Accounting Standards Board (“FASB”).
Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported balances of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Estimates are used for, but not limited to, commitments and contingencies, stock-based compensation (fair value of common stock underlying options), embedded derivative liability, and the timing of research and development accruals and income taxes. Although these estimates are based on the Company’s knowledge of current events and actions it may undertake in the future, actual results may materially differ from these estimates and assumptions.

The full extent to which the COVID-19 pandemic will directly or indirectly impact the Company’s business, results of operations and financial condition, including expenses, clinical trials and research and development costs, will depend on future developments that are highly uncertain, including as a result of new information that may emerge concerning COVID-19 and the actions taken to contain or treat COVID-19, as well as the economic impact on local, regional, national and international markets. The Company has considered potential impacts arising from the COVID-19 pandemic and is not presently aware of any events or circumstances that would require the Company to update its estimates, judgments or revise the carrying value of its assets or liabilities.

Concentration of Credit Risk

Financial instruments which potentially subject the Company to significant concentration of credit risk consist of cash and restricted cash. The Company is exposed to credit risk from its deposits of cash in excess of amounts insured by the Federal Deposit Insurance Corporation. The Company maintains an Insured Cash Sweep account where balances are maintained in interest bearing demand accounts. The Company has not experienced any losses on its deposits of cash since inception, and management believes that the Company is not exposed to significant credit risk due to the financial positions of the respective depository institutions in which those deposits are held.

Comprehensive Loss

Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company’s comprehensive loss was the same as its reported net loss for all periods presented.

Fair Value of Financial Instruments

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value, and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability.

The carrying amounts of all cash, restricted cash, prepaid expenses and other assets, accounts payable, and accrued and other current liabilities are considered to be representative of their respective fair values due to their short maturities.

The carrying values of the embedded derivative liability of $1.6 million (level 3 fair value) and the convertible promissory note of $4.9 million in the accompanying balance sheet at December 31, 2020 approximate fair value because they collectively converted into Series B convertible preferred stock with a fair value of $6.7 million in March 2021.

Cash

Cash represents funds in the Company’s operating bank account. The Company has no cash equivalents.

Restricted Cash

The Company’s current Restricted cash includes payments received under the Grant Agreement (as defined in Note 4) with the Bill & Melinda Gates Foundation (“BMGF”) under which the Company was awarded a grant of up to $10.0 million. The Company will utilize the Grant Agreement funds as it incurs expenses for services performed under the agreement.
The following table provides a reconciliation of cash and restricted cash reported within the balance sheets that sum to the total of the same such amounts shown in the statements of cash flows (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>AS OF DECEMBER 31, 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 23,079</td>
<td>$ 13,114</td>
</tr>
<tr>
<td>Restricted cash, current</td>
<td>—</td>
<td>2,384</td>
</tr>
<tr>
<td><strong>Total cash and restricted cash</strong></td>
<td><strong>$ 23,079</strong></td>
<td><strong>$ 15,498</strong></td>
</tr>
</tbody>
</table>

**Property and equipment, net**

Property and equipment, net is stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets (generally two to five years).

**Impairment of Long-Lived Assets**

The Company regularly reviews the carrying value and estimated lives of its long-lived assets, including property and equipment to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. Should an impairment exist, the impairment loss would be measured based on the excess over the carrying amount of the asset’s fair value. The Company has not recognized any impairment losses from inception through December 31, 2020.

**Derivative Liability, Convertible Notes Discount and Amortization**

The Company’s convertible note (see Note 7) had conversion and redemption features that met the definition of an embedded derivative and were therefore subject to derivative accounting. The initial fair value of the derivative was recorded as a discount to the convertible note, with a corresponding derivative liability. The discount to the convertible note was amortized using the effective interest method. The amortization of the discount is included in interest and other income (expense) in the statements of operations and comprehensive loss. The derivative liability related to these features was recorded at estimated fair value and is remeasured on a recurring basis. Any changes in fair value are reflected in interest and other income (expense) in the statements of operations and comprehensive loss at each reporting date while such instruments were outstanding. The derivative liability was settled in 2021 upon conversion of the underlying convertible note into Series B convertible preferred stock.

**Leases**

At the inception of a contractual arrangement, the Company determines whether the contract contains a lease by assessing whether there is an identified asset and whether the contract conveys the right to control the use of the identified asset in exchange for consideration over a period of time. If both criteria are met, the Company records the associated lease liability and corresponding right-of-use asset upon commencement of the lease using the implicit rate or a discount rate based on a credit-adjusted secured borrowing rate commensurate with the term of the lease. The Company additionally evaluates leases at their inception to determine if they are to be accounted for as an operating lease or a finance lease. A lease is accounted for as a finance lease if it meets one of the following five criteria: the lease has a purchase option that is reasonably certain of being exercised, the present value of the future cash flows is substantially all of the fair market value of the underlying asset, the lease term is for a significant portion of the remaining economic life of the underlying asset, the title to the underlying asset transfers at the end of the lease term, or if the underlying asset is of such a specialized nature that it is expected to have no alternative uses to the lessor at the end of the term. Leases that do not meet the finance lease criteria are accounted for as an operating lease. Operating lease assets represent a right to use an underlying asset for the lease term and operating lease liabilities represent an obligation to make lease payments arising from the lease. Operating lease liabilities with a term greater than one year and their corresponding right-of-use assets are recognized on the balance sheet at the commencement date of the lease based on the present value of lease payments over the expected lease term. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received. As the Company’s leases do not typically provide an implicit rate, the Company utilizes the appropriate incremental borrowing rate, determined as the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term and in a similar economic environment. Lease cost is recognized on a
straight-line basis over the lease term and variable lease payments are recognized as operating expenses in the period in which the obligation for
those payments is incurred. Variable lease payments primarily include common area maintenance, utilities, real estate taxes, insurance, and other
operating costs that are passed on from the lessor in proportion to the space leased by the Company. The Company has elected the practical
expedient to not separate lease and non-lease components.

Grant Revenue
The Company's current revenue consists of revenue under its Grant Agreement with BMGF (see Note 4). The Company is reimbursed for certain
costs that support development activities, including the Company's clinical trial notification (“CTN”) preparations for and planned first-in-human
Phase 1/2 clinical trial of SARS-CoV-2 RBD VLP vaccine in Australia. The Company's Grant Agreement does not provide a direct economic
benefit to BMGF. Rather, the Company entered into an agreement with BMGF to make a certain amount of any resulting vaccine available and
accessible at affordable pricing to people in certain low- and middle-income countries. The Company assessed this cost reimbursement
agreement to determine if the agreement should be accounted for as an exchange transaction or a contribution. Such an agreement is accounted
for as a contribution if the resource provider does not receive commensurate value in return for the assets transferred. Contributions are
recognized as grant revenue when all donor-imposed conditions have been met. As BMGF ultimately determines if milestones under the
agreement are met and if funding should continue, there may be a difference in timing between when research and development expenses are
incurred and when grant revenue is recognized.

Accrued Research and Development Expense
The Company is required to estimate its obligation for expenses incurred under contracts with vendors, consultants, and contract research
organizations, in connection with conducting research and development activities. The financial terms of these contracts are subject to
negotiations, which vary from contract to contract and may result in payment flows that do not match the periods over which materials or services
are provided under such contracts. The Company reflects research and development expenses in its financial statements by recognizing those
expenses in the periods in which services and efforts are expended. The Company accounts for these expenses according to the progress of the
preclinical study or clinical trial, as measured by the timing of various aspects of the study, trial or related activities. The Company determines
accrual estimates through review of the underlying contracts along with preparation of financial models taking into account discussions with
research and other key personnel and third-party service providers as to the progress of studies or trials, or other services being conducted. To
date, the Company has had no material differences between its estimates of such expenses and the amounts actually incurred. During the course
of a study or trial, the Company adjusts its expense recognition if actual results differ from its estimate. Nonrefundable advance payments for
goods and services, including fees for process development or manufacturing and distribution of clinical supplies that will be used in future
research and development activities, are deferred and recognized as expense in the period that the related goods are consumed or services are
performed.

Research and Development
Research and development costs are expensed as incurred and consist primarily of external and internal costs related to the development of
vaccine candidates, including salaries and benefits, stock-based compensation, facilities and depreciation, contracted research, consulting
arrangements, and other expenses incurred to sustain the Company's research and development programs.

Interest Income
Interest income consists of interest income earned on interest bearing demand accounts.

Stock-Based Compensation
Stock-based compensation expense represents the cost of the grant date fair value of employee, officer, director and non-employee stock option
grants, estimated in accordance with the applicable accounting guidance, recognized on a straight-line basis over the vesting period. The vesting
period generally approximates the expected service period of the awards. The Company recognizes forfeitures as they occur.

Liability for Early Exercise of Stock Options
Certain individuals were granted the ability to early exercise their stock options. The shares of common stock issued from the early exercise of
unvested stock options are restricted and continue to vest in accordance with the original vesting schedule. The Company has the option to
repurchase any unvested shares at the original purchase price
upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options on the accompanying balance sheets and will be reclassified as common stock and additional paid-in capital as the shares vest. Unvested shares issued under early exercise provisions subject to repurchase by the Company totaled 2,275,744 and 2,028,754 shares as of December 31, 2019 and 2020, respectively. As of December 31, 2019 and 2020, the Company recorded $250,000 and $283,000, respectively, associated with shares issued with repurchase rights as liabilities in the accompanying balance sheets.

**Common Stock Valuation**

Due to the absence of an active market for the Company's common stock, the Company utilized methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants' Audit and Accounting Practice Guide: Valuation of Privately-Held Company Equity Securities Issued as Compensation to estimate the fair value of its common stock. In determining the exercise prices for options granted, the Company has considered the fair value of the common stock as of the grant date. The fair value of the common stock has been determined based upon a variety of factors.

**Stock-Based Compensation**

The Black-Scholes option pricing model uses inputs which are highly subjective assumptions and generally require significant judgment. These assumptions include:

- **Fair Value of Common Stock.** The grant date fair market value of the shares of common stock underlying stock options has historically been determined by the Company's board of directors. Because there has been no public market for the Company's common stock, the board of directors exercises reasonable judgment and considers a number of objective and subjective factors to determine the best estimate of the fair market value, which include contemporaneous valuations performed by an independent third-party, the Company's results of operations and financial position, including its levels of available capital resources, its stage of development and material risks related to the Company's business, progress of the Company's research and development activities, the Company's business conditions and projections, the lack of marketability of the Company's common stock and preferred stock as a private company, the prices at which the Company sold shares of its convertible preferred stock to outside investors in arm's-length transactions, the rights, preferences and privileges of the Company's redeemable convertible preferred stock relative to those of its common stock, the analysis of initial public offerings and the market performance of similar companies in the biopharmaceutical industry, the likelihood of achieving a liquidity event for the Company's securityholders, such as an initial public offering or a sale of the company, given prevailing market conditions, the hiring of key personnel and the experience of management, trends and developments in the Company's industry and external market conditions affecting the life sciences and biopharmaceutical industry sectors.

- **Expected Term.** The expected term represents the period that the options granted are expected to be outstanding. The expected term of stock options issued is determined using the simplified method (based on the average of the vesting term and the original contractual term) as the Company has concluded that its stock option exercise history does not provide a reasonable basis upon which to estimate expected term.

- **Expected Volatility.** Given that the Company's common stock is privately held, there is no active trading market for the Company's common stock. The Company derived the expected volatility from the average historical volatilities over a period approximately equal to the expected term of comparable publicly traded companies within the Company's peer group that were deemed to be representative of future stock price trends as the Company has limited trading history for its common stock. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

- **Risk-Free Interest Rate.** The risk-free interest rate is based on the U.S. Treasury zero-coupon issues in effect at the time of grant for periods corresponding with the expected term of the options.

- **Expected Dividend Yield.** The Company never paid dividends on its common stock and do not anticipate paying any dividends in the foreseeable future. Therefore, the Company used an expected dividend yield of zero.
Significant changes to the key assumptions underlying the factors used could result in different fair values of common stock at each valuation date.

**Commitments and Contingencies**
The Company recognizes a liability with regard to loss contingencies when it believes it is probable a liability has been incurred, and the amount can be reasonably estimated. If some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, the Company accrues that amount. When no amount within the range is a better estimate than any other amount the Company accrues the minimum amount in the range.

In the event the Company becomes subject to claims or suits arising in the ordinary course of business, the Company would accrue a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

The Company has not recorded any such liabilities at either December 31, 2019 or 2020.

**Income Taxes**
The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that the Company believes these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that the Company would be able to realize its deferred tax assets in the future in excess of their recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

As of December 31, 2019 and 2020, the Company maintained valuation allowances against its deferred tax assets as the Company concluded it had not met the "more likely than not" to be realized threshold. Changes in the valuation allowance when they are recognized in the provision for income taxes may result in a change in the estimated annual effective tax rate.

The Company records uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. The Company recognizes interest and penalties related to unrecognized tax benefits within income tax expense. Any accrued interest and penalties are included within the related tax liability. As of December 31, 2020, the Company had no accrued interest or penalties.

**Net Loss Per Share**
Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. Diluted net loss per share is computed by dividing the net loss by the weighted average number of shares of common stock and common stock equivalents outstanding for the period. Common stock equivalents are only included when their effect is dilutive. The Company's potentially dilutive securities include outstanding stock options under the Company's equity incentive plan and have been excluded from the computation of diluted net loss per share as they would be anti-dilutive to the net loss per share. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to the Company's net loss position.
The following tables summarize the computation of the basic and diluted net loss per share (in thousands, except share and per share data):

<table>
<thead>
<tr>
<th>Numerator:</th>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Net Loss</td>
<td>$(5,297)</td>
</tr>
<tr>
<td>Series 1 preferred stock dividends</td>
<td>(272)</td>
</tr>
<tr>
<td>Series 1 preferred stock extinguishment</td>
<td>(400)</td>
</tr>
<tr>
<td>Net loss attributable to common stockholders</td>
<td>$(5,969)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Denominator:</th>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Weighted-average common shares outstanding, basic and diluted</td>
<td>13,059,436</td>
</tr>
<tr>
<td>Less: Weighted average unvested common stock</td>
<td>(6,459,353)</td>
</tr>
<tr>
<td>Weighted average shares used to compute net loss per share, basic and diluted</td>
<td>6,600,083</td>
</tr>
<tr>
<td>Net loss per share, basic and diluted</td>
<td>$(0.90)</td>
</tr>
</tbody>
</table>

The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because their inclusion would be anti-dilutive:

<table>
<thead>
<tr>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
</tr>
<tr>
<td>Redeemable Series A convertible preferred stock</td>
</tr>
<tr>
<td>Common stock options</td>
</tr>
<tr>
<td>Unvested common stock</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Segments

The Company has determined that it operates and manages one operating segment, which is the business of researching and developing vaccines against infectious diseases. The Company’s chief operating decision maker, its chief executive officer, reviews financial information on an aggregate basis for the purpose of allocating resources.

Recent Accounting Pronouncements

Recently Adopted Accounting Standards

In February 2016, the FASB issued ASU 2016-02, which requires a lessee to recognize a lease liability and a right-of-use asset for all leases with lease terms of more than 12 months. Additionally, certain qualitative and quantitative disclosures will be required in the financial statements. This guidance is effective for annual reporting periods beginning after December 15, 2022, including interim periods within those fiscal years, and early adoption is permitted. Companies may adopt this guidance using a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. The Company adopted this guidance utilizing the modified retrospective transition method effective January 1, 2020, and at the time of adoption, there was no impact on the Company’s financial statements as the existing launch lab license premises was considered a short-term lease. The standard did not materially impact the Company’s statement of operations and comprehensive loss or statement of cash flows and there was no cumulative-effect adjustment to accumulated deficit as of January 1, 2020.
In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments*, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables and available-for-sale debt securities. This update is effective for annual periods beginning after December 15, 2019, and interim periods within those periods, and early adoption is permitted. The Company adopted this guidance effective January 1, 2020. The adoption of ASU 2016-13 did not have a material cumulative impact on the Company's financial statements as of January 1, 2020. In addition, the outbreak of COVID-19 has not had a significant impact on the Company's expected credit losses or the Company's financial statements during 2020. The Company is continuing to monitor the impact of COVID-19 on expected credit losses.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates, modifies and adds disclosure requirements on fair value measurements. The standard is effective for annual periods beginning after December 15, 2019, including interim periods within those fiscal years, and early adoption is permitted. The Company adopted this guidance effective on January 1, 2020, and the adoption of the standard did not have a material impact on the Company's financial statement disclosures.

In November 2019, the FASB issued ASU 2019-08, *Compensation—Stock Compensation (Topic 718) and Revenue from Contracts with Customers (Topic 606)*, which clarifies that an entity must measure and classify share-based payment awards granted to a customer by applying the guidance in Topic 718. ASU 2019-08 is effective for annual reporting periods beginning after December 15, 2019, including interim reporting periods within those annual reporting periods. The Company adopted this guidance effective on January 1, 2020, and there was no cumulative-effect adjustment to accumulated deficit as of January 1, 2020.

**Recently Issued Accounting Standards Not Yet Adopted**

In December 2019, the FASB issued ASU 2019-12, *Income Taxes—Simplifying the Accounting for Income Taxes* (“ASU 2019-12”). Among other items, the amendments in ASU 2019-12 simplify the accounting treatment of tax law changes and year-to-date losses in interim periods. An entity generally recognizes the effects of a change in tax law in the period in which enactment occurs; however, there is an exception for tax laws with delayed effective dates. Under current guidance, an entity may not adjust its annual effective tax rate for a tax law change until the period in which the law is effective. This exception was removed under ASU 2019-12, thereby providing that all effects of a tax law change are recognized in the period of enactment, including adjustment of the estimated annual effective tax rate. Regarding year-to-date losses in interim periods, an entity is required to estimate its annual effective tax rate for the full fiscal year at the end of each interim period and use that rate to calculate its income taxes on a year-to-date basis. However, current guidance provides an exception that when a loss in an interim period exceeds the anticipated loss for the year, the income tax benefit is limited to the amount that would be recognized if the year-to-date loss were the anticipated loss for the full year. ASU 2019-12 removes this exception and provides that, in this situation, an entity would compute its income tax benefit at each interim period based on its estimated annual effective tax rate. ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods within those annual periods. Early adoption is permitted. As of December 31, 2020, the Company has not adopted the guidance and does not expect the ASU to have a material impact on its financial statements and related disclosures.

### 3. Fair Value Measurements

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- **Level 1**—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
**Level 2**—Quoted prices for similar assets and liabilities in active markets, quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

**Level 3**—Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e. supported by little or no market activity).

No transfers between levels have occurred during the periods presented.

The following table summarizes financial liabilities that the Company measured at fair value on a recurring basis, classified in accordance with the fair value hierarchy (in thousands):

<table>
<thead>
<tr>
<th>FAIR VALUE AT REPORT DATE</th>
<th>TOTAL</th>
<th>(LEVEL 1)</th>
<th>(LEVEL 2)</th>
<th>(LEVEL 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embedded derivative liability</td>
<td>$(1,604)</td>
<td>$ --</td>
<td>$ --</td>
<td>$(1,604)</td>
</tr>
</tbody>
</table>

As further described in Note 7, the Company issued a convertible promissory note in August 2020. The convertible promissory note contained certain features that met the definition of a derivative and were required to be bifurcated. The Company has accounted for these as a single derivative comprising all the features requiring bifurcation. The fair value of the embedded derivative liability was estimated using a scenario-based analysis comparing the probability-weighted present value of the convertible promissory note payoff at maturity with and without the bifurcated features. The Company considered possible outcomes available to the noteholders, including various financing dissolution scenarios. In addition, the probabilities applied to various scenarios, the key unobservable inputs are the time to liquidity for each scenario, and the discount rate.

The following table summarizes information about the significant unobservable inputs used in the fair value measurements for the convertible promissory note:

<table>
<thead>
<tr>
<th>AUGUST 20, 2020</th>
<th>DECEMBER 31, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability of financing</td>
<td>90%</td>
</tr>
<tr>
<td>Probability of dissolution</td>
<td>10%</td>
</tr>
<tr>
<td>Time to liquidity (years)</td>
<td>0.83 - 1.33</td>
</tr>
<tr>
<td>Discount rate</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

The Company adjusted the carrying value of the embedded derivative liability within the convertible promissory note to the estimated fair value at each reporting date, with any related increases or decreases in the fair value recorded as change in fair value of Embedded derivative liability in the statements of operations and comprehensive loss.

For the period from January 1, 2020 to December 31, 2020 and for the year ended December 31, 2020 the Company recognized $187,000 of other income in the statements of operations and comprehensive loss related to decreases in the fair value of the embedded derivative liability. 

F-15
The following table provides a reconciliation of the fair value of the embedded derivative liability using Level 3 significant unobservable inputs (in thousands):

<table>
<thead>
<tr>
<th>EMBEDDED DERIVATIVE LIABILITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value at December 31, 2019</td>
<td>$—</td>
</tr>
<tr>
<td>Fair value of Embedded derivative liability at issuance of convertible promissory note</td>
<td>(1,791)</td>
</tr>
<tr>
<td>Change in fair value of Embedded derivative liability (Note 7)</td>
<td>187</td>
</tr>
<tr>
<td>Fair value at December 31, 2020</td>
<td>$(1,604)</td>
</tr>
</tbody>
</table>

4. Grant Agreement

**Bill & Melinda Gates Foundation Grant Agreement**

In support of the Company’s development of a SARS-CoV2 vaccine, in September 2020, the Company entered into the grant agreement with BMGF (the “Grant Agreement”), under which it was awarded a grant totaling up to $10.0 million (the “Grant”). The Grant supports development activities, including the Company’s regulatory filing preparations and planned Phase 1 clinical trial. Unless terminated earlier by BMGF, the Grant Agreement will continue in effect until March 31, 2022. The Company concurrently entered into a Global Access Commitments Agreement (“GACA”) with BMGF as part of the Grant Agreement. Under the terms of the GACA, among other things, the Company agreed to make a certain amount of a SARS-CoV2 vaccine available and accessible at affordable pricing to people in certain low- and middle-income countries.

Payments received in advance that are related to future performance are deferred and recognized as revenue when the research and development activities are performed. Cash payments received under the Grant Agreement are restricted as to their use until eligible expenditures are incurred.

At December 31, 2020, the Company’s current restricted cash and deferred revenue balances on the balance sheet represent funds received from BMGF and its estimate of costs to be reimbursed and revenue to be recognized, respectively, in the next twelve months under the Grant Agreement.

During the year ended December 31, 2020, the Company received $4.0 million in funding from BMGF, $1.6 million of which was recognized as grant revenue and $2.4 million of which remained in restricted cash and deferred revenue in the accompanying balance sheets. In February 2021, the Company received an additional $2.7 million from BMGF.

5. Accrued and other current liabilities

Accrued and other current liabilities consist of the following (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>AS OF DECEMBER 31</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Accrued taxes</td>
<td>$ 1</td>
</tr>
<tr>
<td>Accrued vacation</td>
<td>30</td>
</tr>
<tr>
<td>Accrued bonus</td>
<td>140</td>
</tr>
<tr>
<td>Other accrued liabilities</td>
<td>253</td>
</tr>
<tr>
<td>Total accrued and other current liabilities</td>
<td>$ 424</td>
</tr>
</tbody>
</table>
6. License Agreements

License Agreements with the National Institutes of Health

On June 28, 2018, the Company entered into a non-exclusive patent license agreement (the “NIH Agreement”) with a U.S. government entity, the National Institutes of Health, represented by National Institute of Allergy and Infectious Disease (“NIAID”). The NIH Agreement was amended in September 2018 and September 2020. Under the NIH Agreement, the Company obtained a non-exclusive, worldwide, royalty-bearing, sublicensable license under certain NIAID patent rights, and transfer of know-how and biological materials for use in adjuvanted or non-adjuvanted vaccines for the prevention, cure, or treatment of RSV and metapneumovirus infection in humans.

Under the NIH Agreement, the Company is required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. In consideration of the rights granted to the Company under the NIH Agreement, the Company paid a licensing fee upon execution of the NIH Agreement of $100,000, and will pay annual minimum royalty payments starting in the second year after the initial sale of each licensed product which can be credited against any earned royalties due for sales made in the year. There are milestone payments due upon the completion of certain development, regulatory, and commercial milestones for the licensed products in the future. The Company is obligated to pay aggregate potential milestone payments of up to $2.1 million with respect to future development and regulatory based milestones, and up to $6.5 million with respect to future sales milestones following commercialization. Additionally, the Company has agreed to pay a tiered royalty of a low single digit percentage on net sales of all products applicable to the license. Additional royalties would be due in connection with sublicenses. The Company's royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.

The NIH Agreement will terminate upon the last expiration of the patent rights or the Company may terminate the entirety of the agreement upon discontinuation of development or sales of licensed products and provision of written notice thereof to NIH.

During the years ended December 31, 2019 and 2020, the Company paid $37,500 and $50,000, respectively, in fees associated with the license, which were recorded as research and development expenses.

License Agreements with University of Washington

On June 29, 2018, the Company entered into an exclusive license agreement with an academic entity, University of Washington (the “UW 2018 Agreement”), for an exclusive license to covered intellectual property, a non-exclusive, worldwide license to use licensed know-how, and rights to sublicense for computationally designed nanoparticles and vaccines. The UW 2018 Agreement was amended in June 2019 and again in November 2020. The Company's rights and obligations under the UW 2018 Agreement are subject to certain U.S. government rights, certain global access commitment rights for humanitarian purposes to BMGF, certain rights to Howard Hughes Medical Institute, and certain other limited rights retained by University of Washington.

The Company issued 799,045 shares of common stock on August 1, 2018 in exchange for the UW 2018 Agreement's exclusive license. The shares issued were recorded at their estimated fair value, which is de minimis, with the related expense classified as research and development in 2018.

Under the UW 2018 Agreement, the Company is required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. In consideration of the rights granted to the Company under the UW 2018 Agreement, the Company is required to pay an annual maintenance fee in the mid four figures starting in 2020. Additionally, the Company is required to pay minimum annual royalties following the first year after commercial sale of each licensed product. There are milestone payments due upon the completion of certain development, regulatory, and commercial milestones for licensed products in the future. The aggregate potential milestone payments for future development, regulatory, and sales-based milestones are $1.35 million per indication, up to a maximum of $6.75 million in total milestone payments. Additionally, the Company has agreed to pay a royalty of a low single digit percentage on net sales of all licensed products. Additional royalties would be due in connection with sublicenses and milestones. The Company's royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.
The UW 2018 Agreement will terminate when all licensed rights have been terminated and all obligations due to the University of Washington have been fulfilled, or the Company may terminate the entirety of the agreement upon written notice thereof to the University of Washington.

During the year ended December 31, 2019, the Company paid $78,000 in fees associated with the license, which were expensed as incurred.

During the year ended December 31, 2020, the Company paid $5,000 in fees associated with the license, which were expensed as incurred.

On July 2, 2020, the Company entered into a non-exclusive license agreement with respect to specified intellectual property with options for exclusivity in North America and Europe subject to the performance of certain development milestones, with an academic entity, University of Washington (the “UW 2020 Agreement”). Under the UW 2020 Agreement, the Company also received a non-exclusive, worldwide license to use specific know-how and rights to sublicense for computationally designed nanoparticles and vaccines. The UW 2020 Agreement was amended in August 2020 and subsequently in May 2021. The Company's rights and obligations under the UW 2020 Agreement as amended are subject to certain U.S. government rights, certain global access commitment rights for humanitarian purposes to BMGF, certain rights to Howard Hughes Medical Institute, and certain other limited rights retained by the University of Washington.

Under the UW 2020 Agreement as amended, the Company is required to use commercially reasonable efforts to meet certain specified development, sales and regulatory milestones related to the licensed products within specified time periods. The Company has agreed to pay a royalty of a low single digit percentage on net sales of all products applicable to the license. However, the Company will not be required to pay royalties on net sales of any licensed product under the UW 2020 Agreement as amended if the Company is required to pay royalties on net sales under the UW 2018 Agreement. Additional royalties would be due in connection with sublicenses and milestones. The Company’s royalty obligations continue for each licensed product for so long as licensed patent rights exist and have not expired, been revoked, lapsed, or held unenforceable.

The UW 2020 Agreement as amended will terminate when all licensed rights have been terminated and all obligations due to the University of Washington have been fulfilled, or the Company may terminate the entirety of the agreement upon written notice thereof to the University of Washington.

During the year ended December 31, 2020, the Company reimbursed the University of Washington for patent expenses under the UW 2018 Agreement and UW 2020 Agreement as amended of $139,000, which were expensed as incurred.

During the years ended December 31, 2019 and 2020, the Company did not incur any other fees or make any payments associated with the UW 2020 Agreement as amended.

7. Convertible Promissory Note

In August 2020, the Company issued a $6.5 million convertible promissory note (“Convertible Promissory Note”). The Convertible Promissory Note accrued interest at a rate of 6% a year with maturity date two years from issuance.

The Convertible Promissory Note could be converted or redeemed as follows: (i) automatically converted in a qualified Series B financing transaction from which the Company would receive total gross proceeds of not less than $5.0 million at a conversion price equal to 85% of the per share price paid by investors for such securities, (ii) automatically converted upon initial public offering at a conversion price equal to 85% of the per share price of common stock in the initial public offering, (iii) optionally converted into Series A-3 preferred stock if a change in control, initial public offering, or qualified Series B financing had not occurred prior to the maturity date at a price equal to an amount determined by dividing $140 million by the fully diluted capitalization of the Company at the time of conversion, or (iv) repaid upon a change in control for an amount equal to the issue price plus accrued and unpaid interest or an amount as would have been payable if the noteholders had optionally converted into shares of Series A-3 preferred stock. The Convertible Promissory Note was converted in March 2021 in connection with the Series B financing.

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The Convertible Promissory Note is accounted for in accordance with ASC 470-20, Debt with Conversion and Other Options ("ASC 470-20") and ASC 815-15, Derivatives and Hedging - Embedded Derivatives ("ASC 815-15"). Under ASC 815-15, an embedded feature is required to be bifurcated if all three conditions are met: (1) economic characteristics and risks of the embedded derivative are not clearly and closely related to the economic characteristics and risks of the host contract, (2) the hybrid instrument is not remeasured at fair value under otherwise applicable GAAP with changes in fair value reported in earnings as they occur, and (3) a separate instrument which the same terms as the embedded derivative would be considered a derivative instrument subject to derivative accounting (the initial net investment for the hybrid instrument should not be considered to be the initial net investment for the embedded derivative. The Company bifurcated certain features that were required to be accounted separately for as a single embedded derivative. The initial fair value of this derivative of $1.8 million was recorded as a liability, and as a reduction to the carrying value of the Convertible Promissory Note. The Company also incurred approximately $36,000 of issuance costs related to the Convertible Promissory Note, which were also recorded as a reduction to the Convertible Promissory Note on the balance sheet.

The debt discount comprised of the initial fair value of the derivative liability and the issuance costs is amortized using the effective interest method over the two-year contractual term of the Convertible Promissory Note and presented as a direct reduction of the debt liability. The debt discount is being amortized at an effective interest rate of 23.8%.

Total Convertible Promissory Note consisted of the following as of (in thousands):

| Principal amount | $6,500 |
| Discount related to the embedded derivative liability and issuance costs | $(1,553) |
| Net carrying amount of Convertible Promissory Note | $4,947 |

Interest expense incurred in connection with the Convertible Promissory Note consisted of the following for the year ended December 31 (in thousands):

| Interest expense | $417 |
| Coupon interest at 6% | $143 |
| Accretion of discount and amortization of issuance costs | $274 |

On March 19, 2021, in connection with the closing of the Series B convertible preferred stock financing, the Convertible Promissory Note converted into 2,805,850 shares of Series B-2 convertible preferred stock.

8. Convertible Preferred Stock and Stockholders’ Deficit

Stockholders’ Deficit

Under the Amended and Restated Certificate of Incorporation dated August 15, 2019, the Company had a total of 132,039,749 shares of capital stock authorized for issuance, consisting of 78,000,000 shares of common stock, par value of $0.0001 per share, and 54,039,749 shares of convertible preferred stock, par value of $0.0001 per share.

Convertible Preferred Stock—Series 1

On December 15, 2017, the Company entered into a Series 1 convertible preferred stock purchase agreement. Under the agreement, the Company issued 1,000,000 shares of Series 1 convertible preferred stock ("Series 1") at $1.00 per share for total proceeds of $1.0 million. Additional sales of Series 1 shares took place in February, March, April, and August 2018 and January 2019 for 885,000, 200,000, 250,000, 600,000 and 600,000 shares, respectively. Gross proceeds raised from all sales of Series 1 shares totaled $3.5 million.
Each share of Series 1 stock was convertible into new preferred stock based on a conversion price for a qualified financing determined by dividing (i) original issue price of $1.00 plus unpaid accrued dividends, which totaled $272,000 at conversion, by (ii) the lesser of 80% of the new preferred stock issue price or the conversion price.

In August 2019, upon completion of a qualified financing, all Series 1 shares and dividends declared during 2019 thereon of $272,000 were converted into Series A-2 convertible preferred stock ("Series A-2"). The fair value of the Series A-2 shares issued exceeded the carrying value of the Series 1 shares converted by $400,000, resulting in a $83,000 reduction of additional paid-in capital to zero and a $317,000 increase in accumulated deficit. Series A-2 shares were issued at an original issue price of $0.7692 per share. The $400,000 conversion benefit and $272,000 dividend each increased the 2019 net loss attributable to common stockholders and the 2019 net loss per share.

**Convertible Preferred Stock—Series A-1**

On August 15, 2019, the Company entered into a Series A convertible preferred stock purchase agreement (the “Series A Purchase Agreement”). Under the agreement, the Company issued 27,249,085 shares of Series A-1 convertible preferred stock (“Series A-1”), in an initial closing, at $0.9615 per share for total proceeds of $26.2 million. The Series A Purchase Agreement provided for an additional closing for the Series A-1 purchasers for the issuance of 21,840,870 shares of Series A-1 preferred stock, at a purchase price of $0.9615 per share for aggregate cash proceeds of $21.0 million, to occur no later than April 1, 2021 upon the achievement of the Closing Milestones (as defined in the Series A Purchase Agreement) or a waiver of the Closing Milestones by the Company's Board of Directors.

The Company determined that the right of the investors to purchase an additional number of shares of Series A-1 convertible preferred stock upon the achievement of the Closing Milestones, did not meet the definition of a freestanding financial instrument as the preferred shares issued at the initial closing and the future tranche right were not legally detachable and separately exercisable.

A milestone closing of 21,944,874 Series A-1 shares closed in February 2021, which was contingent on the Company achieving certain regulatory, research and development and operational milestones. With the milestone closing, the Company sold 21,944,874 shares of Series A-1 preferred stock for gross proceeds of $21.1 million.

**Conversion**

Each share of Series A-1 is convertible into common stock: (i) at the option of the holder, or (ii) automatically upon the closing of a public offering with a price to the public of at least $3.846 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Company’s common stock) for at least $50 million in gross proceeds. The conversion ratio of Series A-1 to common stock is currently one-for-one, subject to adjustment upon any future stock splits or stock dividends, issuance of additional shares for less consideration, other distribution of payable in securities, or upon a reorganization, recapitalization, reclassification, merger or consolidation of the Company.

**Dividends**

The holders of the Series A-1 convertible preferred stock have preferential rights over common stockholders to non-cumulative dividends payable when declared by the Board, at the annual rate of $0.07692 per share. Dividends were not declared during 2019 or 2020.

**Voting**

Series A-1 stockholders are entitled to the number of votes equal to the number of shares of common stock into which the preferred stock could be converted. In addition, the Series A-1 stockholders have certain rights whereby the Company is precluded from carrying out certain actions specified in the Company's Amended and Restated Certificate of Incorporation without the approval of the holders of a majority of the Series A-1 shares.

**Liquidation**

Upon the occurrence of a liquidation event, the Series A-1 stockholders have preferential rights over common stockholders as to liquidation payments of their original issuance price of $0.9615 per share, plus any dividends declared and unpaid, on a pro rata, pari passu basis. Any additional distributions after the payment of the liquidation preferences of the Series A-1 shares and Series A-2 shares will be made to the holders of common stock on a pro rata basis.

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Convertible Preferred Stock—Series A-2

Under the Series A Purchase Agreement, the Company also issued 4,929,794 shares of Series A-2 in 2019 with a fair value of $4.2 million (or $0.85 per share net of issuance cost of $57,000) upon conversion of Series 1 shares with a carrying value of $3.8 million (or $1.00 per share). The $400,000 difference between the fair value of Series A-2 and the carrying value of Series 1 was recorded as a $83,000 reduction to additional paid-in capital (bringing its balance to zero) with the remainder recorded as an increase to accumulated deficit.

Conversion
Each share of Series A-2 is convertible into common stock: (i) at the option of the holder, or (ii) automatically upon the closing of a public offering with a price to the public of at least $3.846 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Company’s common stock) for at least $50 million in gross proceeds. The conversion ratio of Series A-2 to common stock is currently one-for-one, subject to adjustment.

Dividends
The holders of the Series A-2 convertible preferred stock have preferential rights over common stockholders to non-cumulative dividends payable when declared by the Board, at the annual rate of $0.061536 per share. Dividends were not declared during 2019 or 2020.

Voting
Series A-2 stockholders are entitled to the number of votes equal to the number of shares of common stock into which the preferred stock could be converted.

Liquidation
Upon the occurrence of a liquidation event, the Series A-2 stockholders have preferential rights over common stockholders as to liquidation payments of their original issuance price of $0.7692 per share, plus any dividends declared and unpaid, on a pro rata, pari passu basis. Any additional distributions after the payment of the liquidation preferences of the Series A-1 shares and Series A-2 shares will be made to the holders of common stock on a pro rata basis.

Convertible Preferred Stock Classification

Redemption
The Company’s convertible preferred stock has been classified as temporary equity on the accompanying balance sheet instead of in stockholders’ deficit in accordance with authoritative guidance for the classification and measurement of redeemable securities. Upon certain change in control events that are outside of the Company’s control, including liquidation, sale or transfer of control of the Company, holders of the convertible preferred stock can cause its redemption. The Company has determined not to adjust the carrying values of the convertible preferred stock to the liquidation preferences of such shares because of the uncertainty of whether or when such events would occur.

Common Stock
As of December 31, 2019 and 2020, of the 78,000,000 authorized shares of common stock, 14,081,396 and 14,947,833 shares were issued, respectively, and 7,903,232 and 10,967,869 shares were outstanding, respectively.

In December 2017, the Company entered into restricted stock purchase agreements and issued 10,724,210 shares of restricted common stock to members of management, and subject to repurchase by the Company. Any shares subject to repurchase by the Company are not deemed, for accounting purposes, to be outstanding until those shares vest. The management grants vested 20% upon issuance and the remaining 80% vest over 48 months in equal monthly installments. The grants provide for accelerated vesting upon a change in control or other contractually specified contingencies. In June 2018, 968,158 shares of the outstanding restricted shares were canceled, and the original proceeds were returned upon the departure of the founder. Given the early stage of the Company at the time of the grants, the value of all grants and the cash exchanged for the shares was de minimis.
In December 2017 and August 2018, the Company issued 321,726 and 799,045 shares, respectively of common stock to a university in connection with obtaining a licensing agreement. The shares issued to a university were fully vested upon issuance.

As of January 1, 2020, the Company had 9,756,052 shares of restricted common stock that had been issued to members of management at a price of $0.001, and 1,120,771 shares of common stock that had been issued to a university in connection with obtaining a licensing agreement.

At December 31, 2019 and 2020, 5,853,631 and 7,804,842 shares of the restricted common stock have vested, respectively. At December 31, 2020, 1,951,210 shares remaining subject to vesting conditions and are expected to vest by December 2021.

Common stock reserved for future issuance consisted of the following:

<table>
<thead>
<tr>
<th>Shares Available for Issuance</th>
<th>AS OF DECEMBER 31, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convertible preferred stock</td>
<td>54,039,749</td>
</tr>
<tr>
<td>Common stock options granted and outstanding</td>
<td>2,665,593</td>
</tr>
<tr>
<td>Shares available for issuance under the 2017 equity incentive plan</td>
<td>260,295</td>
</tr>
<tr>
<td>Total common stock reserved for future issuance</td>
<td>56,965,637</td>
</tr>
</tbody>
</table>

As of December 31, 2019 and 2020, the Company’s convertible preferred stock consisted of the following:

<table>
<thead>
<tr>
<th>Series</th>
<th>Shares Authorized and Designated</th>
<th>Shares Issued and Outstanding</th>
<th>Shares of Common Stock Issuable Upon Conversion</th>
<th>Aggregate Liquidation Preference</th>
<th>Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series A-1</td>
<td>49,089,955</td>
<td>27,249,085</td>
<td>27,249,085</td>
<td>$26,200</td>
<td>$25,912</td>
</tr>
<tr>
<td>Series A-2</td>
<td>4,949,794</td>
<td>4,949,794</td>
<td>4,949,794</td>
<td>3,807</td>
<td>4,150</td>
</tr>
<tr>
<td>Total</td>
<td>54,039,749</td>
<td>32,198,879</td>
<td>32,198,879</td>
<td>$30,007</td>
<td>$30,062</td>
</tr>
</tbody>
</table>

**Stock Options**

In 2017, the Company established a stock option plan (the "Plan") under which incentives may be granted to officers, employees, directors, consultants and advisors. Awards under the Plan may consist of restricted stock and incentive and non-qualified stock options to purchase shares of common stock of the Company.

The Plan is administered by the Board of Directors of the Company or a committee appointed by the Board of Directors, which determines the types of awards to be granted, including the number of shares subject to the awards, the exercise price and the vesting schedule. The number of shares of common stock, which may be granted under the Plan, shall not exceed 6,996,898. All existing grants are subject to a time-based vesting period which will generally be four years. On the first anniversary of the grant date of each existing grant, 25% of the grant will vest with the remaining 75% to vest in equal monthly installments over the remaining 36 months provided the participant has a continuing service relationship with the Company. Certain option and share awards provide for accelerated vesting if there is a change in control or if other contractually specified contingencies are met.

The term of stock options granted under the Plan cannot exceed ten years. Options shall not have an exercise price less than 100% of the fair market value of the Company’s common stock on the grant date, and generally vest over a period of four years.
A summary of the status of the options issued under the Plan as of December 31, 2020, and information with respect to the changes in options outstanding is as follows:

<table>
<thead>
<tr>
<th>OPTION POOL FOR GRANT</th>
<th>OPTIONS OUTSTANDING</th>
<th>WEIGHTED-AVERAGE EXERCISE PRICE PER SHARE</th>
<th>WEIGHTED-AVERAGE REMAINING CONTRACT TERM</th>
<th>AGGREGATE INTRINSIC VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding at December 31, 2019</td>
<td>3,377,823</td>
<td>2,404,140</td>
<td>$0.20</td>
<td>9.80</td>
</tr>
<tr>
<td>Granted</td>
<td>(1,127,890)</td>
<td>1,127,890</td>
<td>0.20</td>
<td>—</td>
</tr>
<tr>
<td>Exercised (early)</td>
<td>—</td>
<td>(866,437)</td>
<td>0.20</td>
<td>—</td>
</tr>
<tr>
<td>Outstanding at December 31, 2020</td>
<td>2,249,933</td>
<td>2,665,593</td>
<td>$0.20</td>
<td>9.02</td>
</tr>
<tr>
<td>Vested and expected to vest as of December 31, 2020</td>
<td>2,665,593</td>
<td>2,665,593</td>
<td>$0.20</td>
<td>9.02</td>
</tr>
<tr>
<td>Vested and exercisable at December 31, 2020</td>
<td>466,674</td>
<td>466,674</td>
<td>$0.20</td>
<td>8.78</td>
</tr>
</tbody>
</table>

Exercisable options in the table above reflects the number of options vested as of the date reported. The plan permits early exercises of options. Cash received for early exercise of unvested options is carried as a liability in the accompanying balance sheet and totaled $283,000 at December 31, 2020.

The weighted-average grant date fair values of employee option grants during the years ended December 31, 2019 and 2020 were $0.21 and $0.25 per share, respectively.

Stock-Based Compensation Expense

For the years ended December 31, 2019 and 2020, the Company recognized stock-based compensation expense of $72,000 and $257,000, respectively.

The Company recognizes compensation expense for options granted to employees and the board of directors based on their grant date fair value. During the year ended December 31, 2019, the Company granted 3,619,075 options, with a grant date fair value of $766,000. During the year ended December 31, 2020, the Company granted 1,127,890 options, with a grant date fair value of $287,000. The compensation expense is recognized over the vesting period of 4 years on a straight-line basis.

The fair value of each stock option granted was determined using the Black-Scholes option pricing model. The assumptions used in the Black-Scholes option pricing model to determine the fair value of the employee and nonemployee stock option grants issued during years ended were as follows:

<table>
<thead>
<tr>
<th>YEAR ENDED DECEMBER 31,</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-free rate of interest</td>
<td>1.66% - 1.82%</td>
<td>0.3% - 1.4%</td>
</tr>
<tr>
<td>Expected term (years)</td>
<td>4 - 6.25 years</td>
<td>5.9 - 6.08 years</td>
</tr>
<tr>
<td>Expected stock price volatility</td>
<td>60.5% - 66.4%</td>
<td>80.2% - 86.4%</td>
</tr>
<tr>
<td>Dividend yield</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

As of December 31, 2020, the unrecognized compensation cost related to outstanding stock options was $749,000 and is expected to be recognized as expense over weighted-average period of approximately 2.8 years.
9. Income Taxes

The provision for income taxes differs from the amount expected by applying the federal statutory rates to the net loss before taxes as follows:

<table>
<thead>
<tr>
<th>YEAR ENDED DECEMBER 31</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. federal statutory income tax rate</td>
<td>21.0%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Adjustments for tax effects of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State income taxes, net of federal tax</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Other permanent differences</td>
<td>(0.3%)</td>
<td>(0.6%)</td>
</tr>
<tr>
<td>Research and development tax credits</td>
<td>(4.8%)</td>
<td>(3.8%)</td>
</tr>
<tr>
<td>Research and development credit permanent adjustment</td>
<td>(1.0%)</td>
<td>(1.3%)</td>
</tr>
<tr>
<td>Uncertain tax positions</td>
<td>(1.6%)</td>
<td>(1.0%)</td>
</tr>
<tr>
<td>Change in valuation allowance</td>
<td>(23.5%)</td>
<td>(22.5%)</td>
</tr>
<tr>
<td>Effective income tax rate</td>
<td>—%</td>
<td>—%</td>
</tr>
</tbody>
</table>

The tax effects at December 31, 2019 and 2020, of the temporary differences and carryforwards that give rise to deferred tax assets and liabilities, are as follows (in thousands):

<table>
<thead>
<tr>
<th>AS OF DECEMBER 31</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deferred tax assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net operating loss carryforwards</td>
<td>$1,512</td>
<td>$4,549</td>
</tr>
<tr>
<td>Research and development credits</td>
<td>251</td>
<td>790</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>—</td>
<td>515</td>
</tr>
<tr>
<td>Other</td>
<td>108</td>
<td>226</td>
</tr>
<tr>
<td><strong>Total deferred tax assets</strong></td>
<td>1,871</td>
<td>6,080</td>
</tr>
<tr>
<td><strong>Less: deferred tax liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: valuation allowance</td>
<td>(45)</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Net deferred tax assets</strong></td>
<td>(1,826)</td>
<td>(6,077)</td>
</tr>
</tbody>
</table>

Due to the uncertainty surrounding the realization of deductible tax attributes in future tax returns, the Company has recorded a valuation allowance against its net deferred tax assets as of December 31, 2019 and 2020. Utilization of the net operating loss carryforwards is dependent on future taxable income. As such, realization is not assured, and a valuation allowance has been established.

The valuation allowance for deferred tax assets was approximately $6.1 million as of December 31, 2020, an increase of $4.3 million during the year ended December 31, 2020. The Company has total net operating loss carryforwards for U.S. federal income tax and state purposes of approximately $21.0 million and $2.2 million, respectively, as of December 31, 2020, which begin to expire in 2037 and 2039, respectively. Federal net operating losses generated after January 1, 2018 will be carried forward indefinitely. The Company has research and development tax credit carryforwards of approximately $1.0 million as of December 31, 2020, which begin to expire in 2037. Additionally, the Company has state research and development credit carryforwards of approximately $45,000 as of December 31, 2020, which carryforward indefinitely. The operating loss carryforwards and research and development tax credits may be limited due to a change in control in the Company’s ownership as defined by the Internal Revenue Code Sections 382 and 383.
On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) was enacted and signed into law in response to the COVID-19 pandemic. The CARES Act, among other things, included several significant provisions that impacted corporate taxpayers’ accounting for income taxes. The Company did record any qualitative or quantitative impacts as a result of the CARES Act.

The Company files income tax returns in the U.S. federal jurisdiction, California, Massachusetts, North Carolina and Montana. The Company is not currently under examination but is open to audit by the I.R.S. for tax years beginning in 2017.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for uncertain tax positions were as follows (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>YEAR ENDED DECEMBER 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>Unrecognized tax benefits, beginning of year</td>
<td>$ —</td>
</tr>
<tr>
<td>Additions based on tax positions relating to current year</td>
<td>64</td>
</tr>
<tr>
<td>Additions based on tax positions relating to prior year</td>
<td>20</td>
</tr>
<tr>
<td>Reductions for positions of prior years</td>
<td>—</td>
</tr>
<tr>
<td>Unrecognized tax benefits, end of year</td>
<td>$ 84</td>
</tr>
</tbody>
</table>

10. Employee Savings Plan
The Company has a defined contribution 401(k) savings plan for those employees who meet minimum eligibility requirements. Under the terms of the plan, eligible employees may contribute up to 90% of their annual compensation to the plan, subject to Internal Revenue Service limitations. The Company may also, at its sole discretion, make contributions to the plan. The Company did not make any contributions to the plan during 2019 or 2020.

11. Subsequent Events
For purposes of the financial statements as of December 31, 2019 and 2020, and the years then ended, the Company evaluated subsequent events for recognition and measurement purposes through May 14, 2021, the date the financial statements were issued. Except as disclosed below, the Company has concluded that no events or transactions have occurred that require disclosure.

(a) Convertible Preferred Stock—Series A Milestone
As discussed in Note 8, the Company entered into the Series A Purchase Agreement in August 2019, which provided for an additional closing for the Series A-1 purchasers for the issuance of 21,840,870 shares of Series A-1 preferred stock, at a purchase price of $0.9615 per share for aggregate cash proceeds of $21.0 million, to occur no later than April 1, 2021 upon the achievement of the Closing Milestones or a waiver of the Closing Milestones by the Company’s Board of Directors. The milestone closing was contingent on the Company achieving certain regulatory, research and development and operational milestones. In February 2021, a milestone closing occurred at which the Company sold 21,944,874 shares of Series A-1 preferred stock for gross proceeds of $21.1 million.

(b) Series B Preferred Stock Purchase Agreement
On March 19, 2021, the Company entered into a preferred stock purchase agreement for the issuance of 35,764,462 shares of Series B preferred stock, $0.0001 par value per share. The Series B convertible preferred stock financing resulted in net cash proceeds of $92.5 million, net of $0.5 million in issuance costs from the sale of 32,958,612 shares of Series B-1 convertible preferred stock at a price of $2.82172 per share. In addition, the Convertible Promissory Note of $6.5 million that the Company issued in August 2020, including accrued interest as of the date of conversion of $0.2 million, was converted into 2,805,850 shares of Series B-2 convertible preferred stock on March 19, 2021 at 85% of the offering’s share price.
(c) Amended and Restated Certificate of Incorporation and Amendment to the Plan
On January 29, 2021, the Board of Directors adopted the Amended and Restated Certificate of Incorporation, under which there are 136,143,753 shares of capital stock authorized for issuance, consisting of 82,000,000 shares of common stock, par value of $0.0001 per share, and 54,143,753 shares of convertible preferred stock, par value of $0.0001 per share.

On January 29, 2021, the Company entered into an Amendment to the Plan and approved an increase of stock available for awards up to 13,211,146, which increased the pool by 6,214,248 shares.

In connection with the Series B issuance in March 2021, the Board of Directors adopted the Amended and Restated Certificate of Incorporation, under which there are 224,237,623 shares of capital stock authorized for issuance, consisting of 134,329,408 shares of common stock, par value $0.0001 per share, and 89,908,215 shares of convertible preferred stock, par value $0.0001 per share.

On March 19, 2021, the Company entered into Amendment to the Plan and approved an increase of stock available for awards up to 29,631,863, which increased the pool by 16,420,717 shares.

(d) Stock Options Granted
In January 2021, the Company granted options to purchase 5,073,106 shares of common stock at an exercise price of $0.25 per share. In April 2021, the Company granted options to purchase 12,057,099 shares of common stock at an exercise price of $1.42 per share. The estimated unrecognized stock-based compensation expense for these awards is approximately $21.0 million. This estimate is based upon the estimated fair value of the Company's common stock as of each option’s grant date. For the purpose of recording stock-based compensation expense, the final fair value of options granted in or after April 2021 will take into account the Company's reassessment of fair value based on the final pricing of the Company's common stock in its initial public offering as well as subsequent operational developments. Therefore, estimated unrecognized stock-based compensation for such grants is subject to change.

(e) Grant Agreement Milestone
As discussed in Note 4, the Company received $2.7 million in restricted cash from the Bill and Melinda Gates Foundation Grant Agreement in February 2021.
Item 13. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the SEC registration fee, the Financial Industry Regulatory Authority, Inc. (FINRA) filing fee and the Nasdaq Global Market listing fee.

<table>
<thead>
<tr>
<th>Description</th>
<th>AMOUNT PAID OR TO BE PAID</th>
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<tbody>
<tr>
<td>SEC registration fee</td>
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</tr>
<tr>
<td>FINRA filing fee</td>
<td>*</td>
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<tr>
<td>Nasdaq Global Market listing fee</td>
<td>*</td>
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<tr>
<td>Accountants’ fees and expenses</td>
<td>*</td>
</tr>
<tr>
<td>Legal fees and expenses</td>
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<tr>
<td>Transfer Agent’s fees and expenses</td>
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<tr>
<td>Printing and engraving expenses</td>
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</tr>
<tr>
<td>Miscellaneous</td>
<td>*</td>
</tr>
<tr>
<td>Total expenses</td>
<td>$*</td>
</tr>
</tbody>
</table>

* To be provided by amendment.


Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by
reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our amended and restated certificate of incorporation provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys’ fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys’ fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys’ fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities.
Set forth below is information regarding unregistered securities issued by us since January 1, 2018. Also included is the consideration received by us for such securities and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(a) Issuances of Securities

1. In February, March, April and August 2018 and January 2019, we issued an aggregate of 2,535,000 shares of Series 1 convertible preferred stock to investors at a purchase price of $1.00 per share, for aggregate consideration of approximately $2.5 million.

2. In August 2019 and February 2021, we issued an aggregate of 49,193,959 shares of Series A-1 convertible preferred stock to investors at a purchase price of $0.9615 per share, for aggregate consideration of approximately $47.3 million, and issued 4,949,794 shares of Series A-2 convertible preferred stock upon the conversion of (i) the Series 1 convertible preferred stock described in paragraph (1) above and (ii) 1,000,000 additional shares of Series 1 convertible preferred stock issued prior to January 1, 2018 and accrued dividends on such Series 1 convertible preferred stock.

3. In August 2020, we issued a convertible promissory note with a principal amount of $6.5 million, and received gross proceeds of approximately $6.5 million.
In March 2021, we issued an aggregate of 32,958,612 shares of Series B-1 convertible preferred stock to investors at a purchase price of $2.82172 per share, for aggregate consideration of approximately $99.5 million, which included the conversion of the convertible promissory note described in paragraph (3) above into 2,805,850 shares of Series B-2 convertible preferred stock, at a conversion price of $2.39846 per share.

No underwriters were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All holders of securities described above represented to us in connection with their purchase or issuance that they were accredited investors and were acquiring the securities for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The holders received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Grants and Exercises of Stock Options

1. From January 1, 2018 through December 31, 2020, we granted stock options to purchase an aggregate of 6,736,603 shares of our common stock at a weighted-average exercise price of $0.14 per share, to certain of our employees, consultants and directors in connection with services provided to us by such persons. Through the effective date of this registration statement, 4,672,470 of these options have been exercised for aggregate consideration of $0.5 million and none have been cancelled.

2. Since January 1, 2021, we have granted stock options to purchase an aggregate of 17,130,205 shares of our common stock at a weighted-average exercise price of $1.07 per share, to certain of our employees, consultants and directors in connection with services provided to us by such persons. Through the effective date of this registration statement, none of these options have been exercised or cancelled.

The stock options and common stock issued upon exercise of such options as described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees and directors, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

(c) Exhibits. See Exhibit Index attached to this registration statement, which is incorporated by reference herein.
(d) Financial Statement Schedules. Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.
The undersigned registrant hereby undertakes to provide to the underwriters, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities
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Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-4
<table>
<thead>
<tr>
<th>EXHIBIT NUMBER</th>
<th>DESCRIPTION OF EXHIBIT</th>
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<tbody>
<tr>
<td>1.1*</td>
<td>Form of Underwriting Agreement</td>
</tr>
<tr>
<td>3.1</td>
<td>Amended and Restated Certificate of Incorporation (currently in effect)</td>
</tr>
<tr>
<td>3.2</td>
<td>Bylaws (currently in effect)</td>
</tr>
<tr>
<td>3.3*</td>
<td>Form of Amended and Restated Certificate of Incorporation (to be effective immediately prior to the closing of this offering)</td>
</tr>
<tr>
<td>3.4*</td>
<td>Form of Amended and Restated Bylaws (to be effective immediately prior to the closing of this offering)</td>
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<tr>
<td>4.1*</td>
<td>Specimen stock certificate evidencing the shares of common stock</td>
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<tr>
<td>4.2</td>
<td>Amended and Restated Investors' Rights Agreement, dated March 19, 2021, by and among the Registrant and certain of its stockholders</td>
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<tr>
<td>5.1*</td>
<td>Opinion of Latham &amp; Watkins LLP</td>
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<td>10.1#</td>
<td>Icosavax, Inc. 2017 Equity Incentive Plan, as amended, and form of stock option agreement thereunder</td>
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<tr>
<td>10.2**</td>
<td>Icosavax, Inc. 2021 Incentive Award Plan and form of stock option agreement thereunder</td>
</tr>
<tr>
<td>10.3**</td>
<td>Icosavax, Inc. 2021 Employee Stock Purchase Plan</td>
</tr>
<tr>
<td>10.4**</td>
<td>Non-Employee Director Compensation Program</td>
</tr>
<tr>
<td>10.5#</td>
<td>Amended and Restated Letter Agreement, dated August 15, 2019, by and between Tadatada Yamada, M.D. and the Registrant</td>
</tr>
<tr>
<td>10.6#</td>
<td>Amended and Restated Employment Letter Agreement, dated May 11, 2020, by and between Adam Simpson and the Registrant, as amended</td>
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<tr>
<td>10.7#</td>
<td>Amended and Restated Employment Letter Agreement, dated August 15, 2019, by and between Douglas Holtzman, Ph.D. and the Registrant</td>
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<tr>
<td>10.8#</td>
<td>Amended and Restated Employment Letter Agreement, dated August 15, 2019, by and between Niranjan Kanesa-thasan, M.D. and the Registrant, as amended</td>
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<td>10.9#</td>
<td>Amended and Restated Employment Letter Agreement, dated February 8, 2021, by and between Cassia Cearley, Ph.D. and the Registrant</td>
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<td>10.10#</td>
<td>Amended and Restated Employment Letter Agreement, dated August 15, 2019, by and between Charles Richardson, Ph.D. and the Registrant</td>
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<tr>
<td>10.11**</td>
<td>Form of Indemnification Agreement for Directors and Officers</td>
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<td>10.12†</td>
<td>Exclusive License Agreement, dated June 29, 2018, between the Registrant and University of Washington, as amended</td>
</tr>
<tr>
<td>10.13†</td>
<td>License and Exclusive Option Agreement, dated July 2, 2020, between the Registrant and University of Washington, as amended</td>
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<td>10.14†</td>
<td>Non-Exclusive Patent License Agreement, dated June 28, 2018, between the Registrant and National Institute of Allergy and Infectious Diseases, as amended</td>
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<tr>
<td>10.15†</td>
<td>Grant Agreement, September 24, 2020, between the Registrant and the Bill &amp; Melinda Gates Foundation, as amended</td>
</tr>
<tr>
<td>10.16†</td>
<td>Global Access and Price Commitment Agreement, February 17, 2021, between the Registrant and the Bill &amp; Melinda Gates Foundation</td>
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<td>23.1*</td>
<td>Consent of Ernst &amp; Young LLP, independent registered public accounting firm</td>
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<tr>
<td>23.2*</td>
<td>Consent of Latham &amp; Watkins LLP (included in Exhibit 5.1)</td>
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<tr>
<td>24.1*</td>
<td>Power of Attorney (included on signature page)</td>
</tr>
</tbody>
</table>

* To be filed by amendment.
# Indicates management contract or compensatory plan.
† Portions of this exhibit have been omitted for confidentiality purposes.
SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Seattle, State of Washington, on this ___ day of __________, 2021.

ICOSAVAX, INC.

By: __________________________________________
Adam Simpson
Chief Executive Officer and Director

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Icosavax, Inc., hereby severally constitute and appoint Adam Simpson and Cassia Cearley, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities held on the dates indicated.

<table>
<thead>
<tr>
<th>SIGNATURE</th>
<th>TITLE</th>
<th>DATE</th>
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</thead>
<tbody>
<tr>
<td>Adam Simpson</td>
<td>Chief Executive Officer and Director (principal executive officer)</td>
<td>2021</td>
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<tr>
<td>Cassia Cearley</td>
<td>Chief Business Officer (principal financial and accounting officer)</td>
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<tr>
<td>Tadataka Yamada, M.D.</td>
<td>Chairman</td>
<td>2021</td>
</tr>
<tr>
<td>Elisha P. Gould III</td>
<td>Director</td>
<td>2021</td>
</tr>
<tr>
<td>Jason Hafler, Ph.D.</td>
<td>Director</td>
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</tr>
<tr>
<td>Peter Kolchinsky, Ph.D.</td>
<td>Director</td>
<td>2021</td>
</tr>
<tr>
<td>Mark McDade</td>
<td>Director</td>
<td>2021</td>
</tr>
<tr>
<td>Eric Moessinger</td>
<td></td>
<td>2021</td>
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</tbody>
</table>
Exhibit 3.1

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
ICOSAVAX, INC.

Icosavax, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “General Corporation Law”),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Icosavax, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on November 1, 2017 under the name IcosaVax, Inc.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Amended and Restated Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Amended and Restated Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Icosavax, Inc. (the “Corporation”).

SECOND: The address of the registered office of the Corporation in the State of Delaware is 251 Little Falls Drive, Wilmington, Delaware 19808, New Castle County. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 134,329,408 shares of Common Stock, $0.0001 par value per share (“Common Stock”) and (ii) 89,908,215 shares of Preferred Stock, $0.0001 par value per share (“Preferred Stock”).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.
2. **Voting.** The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Amended and Restated Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Amended and Restated Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. **PREFERRED STOCK**

49,193,959 shares of the authorized Preferred Stock of the Corporation are hereby designated “Series A-1 Preferred Stock”, 4,949,794 shares of the authorized Preferred Stock of the Corporation are hereby designated “Series A-2 Preferred Stock”, 32,958,612 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “Series B-1 Preferred Stock”, and 2,805,850 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “Series B-2 Preferred Stock”, with the respective rights, preferences, powers, privileges and restrictions, qualifications and limitations set forth herein. Unless otherwise indicated, references to “sections” or “subsections” in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth. As used herein, (i) “Series A Preferred Stock” means, collectively, Series A-1 Preferred Stock and Series A-2 Preferred Stock and (ii) “Series B Preferred Stock” means, collectively, Series B-1 Preferred Stock and Series B-2 Preferred Stock.

1. **Dividends.**

From and after the date of the issuance of any shares of Preferred Stock, the holders of Preferred Stock shall be entitled to receive a non-cumulative dividend of eight percent (8%) per annum of the Series A-1 Original Issue Price (as defined herein), the Series A-2 Original Issue Price (as defined herein), the Series B-1 Original Issue Price (as defined herein), or the Series B-2 Original Issue Price (as defined herein), as applicable. Such dividends shall be payable only when, as, and if declared by the Board of Directors and the Corporation shall be under no obligation to pay such dividends. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Amended and Restated Certificate of Incorporation) the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Preferred Stock as would equal the product of (A) the dividend payable on
each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Preferred Stock determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Series A-1 Original Issue Price, Series A-2 Original Issue Price, Series B-1 Original Issue Price, or Series B-2 Original Issue Price, as applicable; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Preferred Stock dividend. The “Series A-1 Original Issue Price” shall mean $0.9615 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A-1 Preferred Stock. The “Series A-2 Original Issue Price” shall mean $0.7692 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A-2 Preferred Stock. The “Series B-1 Original Issue Price” shall mean $2.82172 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B-1 Preferred Stock. The “Series B-2 Original Issue Price” shall mean $2.39846 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B-2 Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock. In (a) the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders or, (b) the case of a Deemed Liquidation Event (as defined below), the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or the Available Proceeds (as defined below), in each case ((a) and (b)), on a pro rata, pari passu basis, before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the greater of (i) one times the Series A-1 Original Issue Price, Series A-2 Original Issue Price, Series B-1 Original Issue Price, or Series B-2 Original Issue Price, as applicable, plus any dividends declared but unpaid thereon and (ii) such amount per share as would have been payable had all shares of such series of Preferred Stock been converted to Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event (the “Preferred Stock Liquidation Amount”). If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Preferred
Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Payments to Holders of Common Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after the payment in full of all Preferred Stock Liquidation Amounts required to be paid to the holders of shares of Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders or, in the case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Preferred Stock pursuant to Section 2.1 or the remaining Available Proceeds, as the case may be, shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a “Deemed Liquidation Event” unless the holders of at least a seventy percent (70%) of the outstanding shares of Series A-1 Preferred Stock, Series B-1 Preferred Stock and Series B-2 Preferred Stock, voting together as a single class on an as-converted basis (collectively, the “Requisite Holders”) elect otherwise:

(a) a merger or consolidation in which

   (i) the Corporation is a constituent party or

   (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary effected for the sole purpose of changing the domicile of the Corporation or in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) (1) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or (2) the sale or disposition (whether by merger, consolidation or otherwise, and whether in a single transaction or a series of related transactions) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.
2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.3.1(a) unless the agreement or plan of merger or consolidation for such transaction (the "Merger Agreement") provides that the consideration payable to the stockholders of the Corporation in such Deemed Liquidation Event shall be paid to the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the ninetieth (90th) day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Preferred Stock, and (ii) if the Requisite Holders so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the "Available Proceeds"), on the one hundred fiftieth (150th) day after such Deemed Liquidation Event, to redeem all outstanding shares of Preferred Stock at a price per share equal to the applicable Preferred Stock Liquidation Amount. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall redeem a pro rata portion of each holder’s shares of Preferred Stock to the fullest extent of such Available Proceeds, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Available Proceeds were sufficient to redeem all such shares, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. The Board of Directors of the Corporation shall determine in good faith commercially reasonable procedures for the redemption of the shares of Preferred Stock pursuant to this Subsection 2.3.2(b). Prior to the distribution or redemption provided for in this Subsection 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities to be paid or distributed to such holders pursuant to such Deemed Liquidation Event. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation, including at least three (3) of the Preferred Directors.
2.3.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event pursuant to Subsection 2.3.1(a)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the “Additional Consideration”), the Merger Agreement shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the “Initial Consideration”) shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Subsection 2.3.4, consideration placed into escrow or retained as a holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event and earn-out or milestone consideration payable based upon events occurring after the consummation of such Deemed Liquidation Event shall be deemed to be Additional Consideration.


3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as converted to Common Stock basis.

3.2 Election of Directors. The holders of record of the shares of Series A-1 Preferred Stock, exclusively and as a separate class, shall be entitled to elect four (4) directors of the Corporation (the “Series A-1 Directors”), and the holders of record of the shares of Series B Preferred Stock, voting together as a single class on an as-converted basis, shall be entitled to elect one (1) director of the Corporation (the “Series B Director” and, together with the Series A-1 Directors, the “Preferred Directors”). Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Series A-1 Preferred Stock or Series B Preferred Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Series A-1 Preferred Stock or Series B Preferred Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock
and of any other class or series of voting stock (including the Preferred Stock), voting together as a single class on an as-converted basis, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2; provided, however, that for administrative convenience, the initial Series B Director may be appointed by the Board of Directors in connection with the approval of the initial issuance of Series B Preferred Stock without a separate action by the holders of record of the shares of Series B Preferred Stock.

3.3 Preferred Stock Protective Provisions. At any time when shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation, recapitalization, reclassification, or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the Requisite Holders given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a single class on an as-converted basis, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect.

3.3.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing;

3.3.2 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation;

3.3.3 create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock (excluding any shares of Preferred Stock issued pursuant to that certain Series B Preferred Stock Purchase Agreement, dated on or after the filing date of this Amended and Restated Certificate of Incorporation, among the Corporation and the Investors named therein (as the same may be amended from time to time in accordance with its terms, the "Purchase Agreement") or shares of Common Stock issued on conversion thereof), or increase the authorized number of shares of Preferred Stock or increase the authorized number of shares of any additional class or series of capital stock of the Corporation;

3.3.4 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation,
the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Preferred Stock in respect of any such right, preference or privilege;

3.3.5 sell, issue, sponsor, create or distribute any digital tokens, cryptocurrency or other blockchain-based assets (collectively, “Tokens”), including through a pre-sale, initial coin offering, token distribution event or crowdfunding, or through the issuance of any instrument convertible into or exchangeable for Tokens;

3.3.6 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock, or (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof;

3.3.7 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary;

3.3.8 amend or increase the number of shares of capital stock of the Corporation reserved for issuance pursuant to the Corporation’s 2017 Equity Incentive Plan (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock) or adopt or set aside or reserve shares of capital stock for issuance to the Corporation’s employees, consultants, advisors and directors pursuant to any similar equity incentive plan;

3.3.9 purchase or acquire, either directly or indirectly (including pursuant to any merger or consolidation or asset or stock purchase) any business, material assets of any business or securities in any other entity;

3.3.10 sell, license, transfer or otherwise dispose of assets of the Corporation having a value in excess of $500,000 outside of the ordinary course of business or incur any indebtedness in excess of $500,000 in the aggregate;

3.3.11 increase or decrease the authorized number of directors constituting the Board of Directors;

3.3.12 take any action with respect to any direct or indirect subsidiary of the Corporation, that if taken by the Corporation, would require approval pursuant to the protective provisions herein; or

3.3.13 amend this Subsection 3.3.
3.4 Series B Preferred Stock Protective Provisions. At any time when shares of Series B Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation, recapitalization, reclassification, or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the holders of a majority of the Series B Preferred Stock given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a separate class on an as-converted basis, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect.

3.4.1 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series B Preferred Stock;

3.4.2 create, or authorize the creation of, or issue or obligate itself to issue additional shares of Series B Preferred Stock, or increase the authorized number of shares of Series B Preferred Stock;

3.4.3 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series B Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series B Preferred Stock in respect of any such right, preference or privilege; or

3.4.4 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one (1) or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock.

3.5 Series A Preferred Stock Protective Provisions. At any time when shares of Series A Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation, recapitalization, reclassification, or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the holders of a majority of the Series A Preferred Stock given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a separate class on an as-converted basis, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect.

3.5.1 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series A Preferred Stock;
3.5.2 create, or authorize the creation of, or issue or obligate itself to issue additional shares of Series A Preferred Stock, or increase the authorized number of shares of Series A Preferred Stock;

3.5.3 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series A Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series A Preferred Stock in respect of any such right, preference or privilege; or

3.5.4 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one (1) or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the “Conversion Rights”):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Series A-1 Original Issue Price, Series A-2 Original Issue Price, Series B-1 Original Issue Price, or Series B-2 Original Issue Price, as applicable, by the applicable Conversion Price (as defined below) in effect at the time of conversion; provided that such holder may waive such option to convert upon written notice to the Corporation. The “Series A-1 Conversion Price” shall initially be $0.9615. The “Series A-2 Conversion Price” shall initially be $0.7692. The “Series B-1 Conversion Price” shall initially be $2.82172. The “Series B-2 Conversion Price” shall initially be $2.39846. The “Conversion Price” shall mean (i) with respect to any shares of Series A-1 Preferred Stock, the Series A-1 Conversion Price, (ii) with respect to any shares of Series A-2 Preferred Stock, the Series A-2 Conversion Price, (iii) with respect to any shares of Series B-1 Preferred Stock, the Series B-1 Conversion Price, or (iv) with respect to any shares of Series B-2 Preferred Stock, the Series B-2 Conversion Price. Such initial Series A-1 Conversion Price, Series A-2 Conversion Price, Series B-1 Conversion Price, and Series B-2 Conversion Price, and the rate at which shares of Series A-1 Preferred Stock, Series A-2 Preferred Stock, Series B-1 Preferred Stock, and Series B-2 Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.
4.1.2 Termination of Conversion Rights. In the event of a notice of redemption of any shares of Preferred Stock pursuant to Section 2.3.2(b), the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not fully paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation’s transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder’s shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder’s shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder’s name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the “Conversion Time”), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common
Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Amended and Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Conversion Price of any series of Preferred Stock below the then par value of the shares of Common Stock issuable upon conversion of such series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of any series of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of such series of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Conversion Price of such series of Preferred Stock shall be made for any declared but unpaid dividends on such series of Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.
4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) “Option” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) “Series B Original Issue Date” shall mean the date on which the first share of Series B Preferred Stock was issued.

(c) “Convertible Securities” shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) “Additional Shares of Common Stock” shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Series B Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, “Exempted Securities”):

(i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Requisite Holders or that is in effect as of the date of the filing of the Amended and Restated Certificate of Incorporation;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, real property lessors, or to other persons engaged in the business of making loans, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation, including the approval of at least three (3) of the Preferred Directors;

(vi) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, acquisitions agreements, development, OEM, marketing or other similar agreements or...
4.4.2 No Adjustment of Conversion Price. No adjustment in the Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Holders agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series B Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price pursuant to the terms of Subsection 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or
Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (i) the Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price then in effect, or because such Option or Convertible Security was issued before the Series B Original Issue Date), are revised after the Series B Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price pursuant to the terms of Subsection 4.4.4, the Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise,
conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series B Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Conversion Price in effect immediately prior to such issuance or deemed issuance, then the Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

\[
CP_2 = CP_1 \times \frac{(A + B)}{(A + C)}
\]

For purposes of the foregoing formula, the following definitions shall apply:

(i) “\(CP_2\)” shall mean the Conversion Price in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock;

(ii) “\(CP_1\)” shall mean the Conversion Price in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;

(iii) “\(A\)” shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(iv) “\(B\)” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to \(CP_1\) (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by \(CP_1\)); and

(v) “\(C\)” shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows:
(a) **Cash and Property**: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) **Options and Convertible Securities**: The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 **Multiple Closing Dates**: In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price pursuant to the terms of Subsection 4.4.4, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, the Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).
4.5 **Adjustment for Stock Splits and Combinations.** If the Corporation shall at any time or from time to time after the Series B Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series B Original Issue Date combine the outstanding shares of Common Stock, the Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 **Adjustment for Certain Dividends and Distributions.** In the event the Corporation at any time or from time to time after the Series B Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Conversion Price then in effect by a fraction:

1. the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

2. the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.7 **Adjustments for Other Dividends and Distributions.** In the event the Corporation at any time or from time to time after the Series B Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property
and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or
(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least $4.23258 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50,000,000 of gross proceeds to the Corporation and in connection with such offering the Common Stock is listed for trading on the Nasdaq Global Market or the New York Stock Exchange or another exchange or marketplace approved by the Board of Directors, including the approval of at least three (3) Preferred Directors (a "Qualified Public Offering"), or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Holders (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "Mandatory Conversion Time"), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate as calculated pursuant to Subsection 4.1.1, and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the
Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. **Redemption.** The Preferred Stock is not redeemable except in accordance with Subsection 2.3.2(b).

7. **Redeemed or Otherwise Acquired Shares.** Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption.

8. **Waiver.** Except as otherwise set forth herein, any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the Requisite Holders.

9. **Notices.** Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

**FIFTH:** Subject to any additional vote required by this Amended and Restated Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

**SIXTH:** Subject to any additional vote required by this Amended and Restated Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation. Each director shall be entitled to one vote on
each matter presented to the Board of Directors; provided, however, that, so long as the holders of Preferred Stock are entitled to elect the Preferred Directors, the affirmative vote of at least three (3) of the Preferred Directors shall be required for the authorization by the Board of Directors of any of the matters set forth in Section 5.5 of the Amended and Restated Investors’ Rights Agreement, dated on or after the filing date of this Amended and Restated Certificate of Incorporation, by and among the Corporation and the other parties thereto, as such agreement may be amended from time to time.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not (a) adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification or (b) increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

ELEVENTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An “Excluded Opportunity” is any matter, transaction or interest
that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee, affiliate or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, the persons referred to in clauses (i) and (ii) are “Covered Persons”), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person’s capacity as a director of the Corporation while such Covered Person is performing services in such capacity. Any repeal or modification of this Article Eleventh will only be prospective and will not affect the rights under this Article Eleventh in effect at the time of the occurrence of any actions or omissions to act giving rise to liability. Notwithstanding anything to the contrary contained elsewhere in this Amended and Restated Certificate of Incorporation, the affirmative vote of the Requisite Holders will be required to amend or repeal, or to adopt any provisions inconsistent with, this Article Eleventh.

TWELFTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation’s stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation’s certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Twelfth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Twelfth (including, without limitation, each portion of any sentence of this Article Twelfth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

THIRTEENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause or causes of action under the Securities Act of 1933, as amended, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by the Corporation, its officers and directors, the underwriters of any offering giving rise to such complaint, and any other professional or entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. Any person or entity purchasing or otherwise acquiring any interest in
any security of the Corporation shall be deemed to have notice of and consented to this Article Thirteenth.

FOURTEENTH: For purposes of Section 500 of the California Corporations Code (to the extent applicable), in connection with any repurchase of shares of Common Stock permitted under this Amended and Restated Certificate of Incorporation from employees, officers, directors or consultants of the Corporation in connection with a termination of employment or services pursuant to agreements or arrangements approved by the Board of Directors (in addition to any other consent required under this Amended and Restated Certificate of Incorporation), such repurchase may be made without regard to any “preferential dividends arrears amount” or “preferential rights amount” (as those terms are defined in Section 500 of the California Corporations Code). Accordingly, for purposes of making any calculation under California Corporations Code Section 500 in connection with such repurchase, the amount of any “preferential dividends arrears amount” or “preferential rights amount” (as those terms are defined therein) shall be deemed to be zero (0).

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation’s Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.
IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 19th day of March, 2021.

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: President and Chief Executive Officer
BYLAWS

OF

ICOSAVAX, INC.

(A DELAWARE CORPORATION)
ARTICLE I
OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be 251 Little Falls Drive City of Wilmington, County of New Castle, 19808 or in such other location as the Board of Directors may from time to time determine or the business of the corporation may require.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II
CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III
STOCKHOLDERS’ MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law (“DGCL”).

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation’s notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of paragraph (a) of this Section, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL and applicable law, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this paragraph), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to
holders of at least the percentage of the corporation’s voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation’s voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section. To be timely, a stockholder’s notice shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year’s annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year’s annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder’s notice as described above. Such stockholder’s notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the “1934 Act”), and Rule 14a-4(d) thereunder (including such person’s written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation’s books, and of such beneficial owner, (ii) the class and number of shares of the corporation that are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation’s voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation’s voting shares to elect such nominee or nominees (an affirmative statement of such intent, a “Solicitation Notice”).

(c) Notwithstanding anything in the second sentence of paragraph (b) of this Section to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least 100 days prior to the first anniversary of the preceding year’s annual meeting, a stockholder’s notice required by this Section shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section (or elected or appointed pursuant to Article IV of these Bylaws) shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section. Except as
otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section, “public announcement” shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission (the “SEC”) pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by directors representing a quorum of the Board of Directors or (iv) by the holders of shares entitled to cast not less than 20% of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than 35 nor more than 120 days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder’s address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his or her attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not
Section 8. Quorum. At all meetings of stockholders, except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by statute, the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting pursuant to the Certificate of Incorporation, these Bylaws or applicable law. If the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two or more persons have the same
fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting (including giving consent pursuant to Section 13) shall have the following effect: (a) if only one votes, his or her act binds all; (b) if more than one votes, the act of the majority so voting binds all; (c) if more than one votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action that may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent or electronic transmission shall bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation’s registered office shall be by hand or by certified or registered mail, return receipt requested.

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action to which the stockholders consent is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.
An electronic mail, facsimile or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this Section, provided that any such electronic mail, facsimile or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the electronic mail, facsimile or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such electronic mail, facsimile or electronic transmission. The date on which such electronic mail, facsimile or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by electronic mail, facsimile or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the state of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation’s registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by electronic mail, facsimile or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the board of directors of the corporation. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer, or, if the Chief Executive Officer is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the Chief Executive Officer, shall act as secretary of the meeting.

(b) The Board of Directors shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters that are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.
ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient.

Section 16. Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board of Directors, except as otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Term of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders to serve until the next annual meeting of stockholders and his or her successor is duly elected and qualified or until his or her death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director; provided, however, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof in office, or by a sole remaining director so elected. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director’s successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his or her successor shall have been duly elected and qualified.

Section 20. Removal. Subject to any limitations imposed by applicable law, the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative
Section 21. Meetings

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware that has been designated by the Board of Directors and publicized among all directors, either orally or in writing, including a voice-messaging system or other system designated to record and communicate messages, facsimile, or by electronic mail or other electronic means. No further notice shall be required for a regular meeting of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer (if a director), the President (if a director) or any director.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least 24 hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, postage prepaid at least three days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the total number of directors then serving; provided, however, that such number shall never be less than 1/3 of the total number of directors except that when one director is authorized, then one director shall constitute a quorum. At any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. If the Certificate of Incorporation provides that one or more directors shall have more or
less than one vote per director on any matter, every reference in this Section to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of paragraphs (a) or (b) of this Section may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a
quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place that has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer (if a director), or if the Chief Executive Officer is not a director or is absent, the President (if a director), or if the President is not a director or is absent, the most senior Vice President (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary directed to do so by the Chief Executive Officer or President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors, or by the Chief Executive Officer or other officer if so authorized by the Board of Directors.
(b) **Duties of Chairman of the Board of Directors.** The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no Chief Executive Officer and no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section.

(c) **Duties of Chief Executive Officer.** The Chief Executive Officer shall preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. The Chief Executive Officer shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(d) **Duties of President.** In the absence or disability of the Chief Executive Officer or if the office of Chief Executive Officer is vacant, the President shall preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. If the office of Chief Executive Officer is vacant, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(e) **Duties of Vice Presidents.** The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) **Duties of Secretary.** The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The Chief Executive Officer may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer shall designate from time to time.

(g) **Duties of Chief Financial Officer.** The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer shall
Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the Chief Executive Officer or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written or electronic consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI
EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name, or to enter into contracts on behalf of the corporation, except as otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. All checks and drafts drawn on banks or other depositaries of funds to the credit of the corporation or on special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do. Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII
SHARES OF STOCK
Section 34. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated. Certificates for the shares of stock, if any, of the corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of shares of stock in the corporation represented by certificate shall be entitled to have a certificate signed by or in the name of the corporation by any two authorized officers, including but not limited to the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him or her in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner’s legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Restrictions on Transfer.

(a) No holder of any of the shares of stock of the corporation may sell, transfer, assign, pledge, or otherwise dispose of or encumber any of the shares of stock of the corporation or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise (each, a "Transfer") without the prior written consent of the corporation, upon duly authorized action of its Board of Directors. The corporation may withhold consent for any legitimate corporate purpose, as determined by the Board of Directors. Examples of the basis for the corporation to withhold its consent include, without limitation, (i) if such Transfer to individuals, companies or any other form of entity identified by the corporation as a potential competitor or considered by the corporation to be unfriendly; or (ii) if such Transfer increases the risk of the corporation having a class of security held of record by 2,000 or more persons, or 500 or more persons who are not accredited investors (as such term is defined by the SEC), as described in Section 12(g) of the 1934 Act and any related regulations, or otherwise requiring the corporation to register any class of securities under the 1934 Act; or (iii) if such Transfer would result in the loss of any federal or state securities law exemption relied upon by the corporation in connection with the initial issuance of such shares or the issuance of any other securities; or (iv) if such Transfer is facilitated in any manner by any public posting, message board, trading portal, internet site, or similar method of communication, including without limitation any trading portal or internet site intended to facilitate secondary transfers of securities; or (v) if such Transfer is to be effected in a brokered transaction; or (vi) if such Transfer represents a Transfer of less than all of the shares then held by the stockholder and its affiliates or is to be made to more than a single transferee.

(b) If a stockholder desires to Transfer any shares, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer. Any shares proposed to be transferred to which Transfer the corporation has consented pursuant to paragraph (a) of this Section will first be subject to the corporation’s right of first refusal located in Section 37 of these Bylaws.
At the option of the corporation, the stockholder shall be obligated to pay to the corporation a reasonable transfer fee related to the costs and time of the corporation and its legal and other advisors related to any proposed Transfer.

Any Transfer, or purported Transfer, of shares not made in strict compliance with this Section shall be null and void, shall not be recorded on the books of the corporation and shall not be recognized by the corporation.

The foregoing restriction on Transfer shall not apply to the Transfer of shares of Preferred Stock or to the Transfer of any shares of Common Stock issued upon the conversion of any shares of Preferred Stock.

The foregoing restriction on Transfer shall terminate upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the SEC under the Securities Act of 1933, as amended (the “1933 Act”).

The certificates representing shares of Common Stock of the corporation shall bear on their face the following legend so long as the foregoing Transfer restrictions are in effect:

“THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A TRANSFER RESTRICTION, AS PROVIDED IN THE BYLAWS OF THE CORPORATION.”

Section 37. Right of First Refusal. No stockholder shall Transfer any of the shares of stock of the corporation, except by a Transfer that meets the requirements set forth in this Section 37, in addition to any other restrictions or requirements set forth under applicable law or these Bylaws:

If the stockholder desires to Transfer any of his or her shares of stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

For 30 days following receipt of such notice, the corporation shall have the option to purchase up to all the shares specified in the notice at the price and upon the terms set forth in such notice; provided, however, that, with the consent of the stockholder, the corporation shall have the option to purchase a lesser portion of the shares specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other Transfer in which the proposed transferee is not paying the full price for the shares, and that is not otherwise exempted from the provisions of this Section, the price shall be deemed to be the fair market value of the stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares or, with consent of the stockholder, a lesser portion of the shares, it shall give written notice to the transferring stockholder of its election and settlement for said shares shall be made as provided below in paragraph (d) of this Section.

The corporation may assign its rights hereunder.

In the event the corporation and/or its assignee(s) elect to acquire any of the shares of the transferring stockholder as specified in said transferring stockholder’s notice, the Secretary of the corporation shall so notify the transferring stockholder and settlement thereof shall be made in cash within 30 days after the Secretary of the corporation receives said transferring stockholder’s notice; provided that if the terms of payment set forth in said transferring stockholder’s notice were other than
cash against delivery, the corporation and/or its assignee(s) shall pay for said shares on the same terms and conditions set forth in said transferring stockholder’s notice.

(e) In the event the corporation and/or its assignee(s) do not elect to acquire all of the shares specified in the transferring stockholder’s notice, said transferring stockholder may, subject to the corporation’s approval and all other restrictions on Transfer located in Section 36 of these Bylaws, within the 60-day period following the expiration or waiver of the option rights granted to the corporation and/or its assignee(s) herein, Transfer the shares specified in said transferring stockholder’s notice that were not acquired by the corporation and/or its assignee(s) as specified in said transferring stockholder’s notice. All shares so sold by said transferring stockholder shall continue to be subject to the provisions of this Bylaw in the same manner as before said Transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions shall be exempt from the right of first refusal in paragraph (a) of this Section:

1. A stockholder’s Transfer of any or all shares held either during such stockholder’s lifetime or on death by will or intestacy to such stockholder’s immediate family or to any custodian or trustee for the account of such stockholder or such stockholder’s immediate family or to any limited partnership of which the stockholder, members of such stockholder’s immediate family or any trust for the account of such stockholder or such stockholder’s immediate family will be the general or limited partner(s) of such partnership. “Immediate family” as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such Transfer;

2. A stockholder’s bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent Transfer of said shares by said institution shall be conducted in the manner set forth in this Bylaw;

3. A stockholder’s Transfer of any or all of such stockholder’s shares to the corporation or to any other stockholder of the corporation;

4. A stockholder’s Transfer of any or all of such stockholder’s shares to a person who, at the time of such Transfer, is an officer or director of the corporation;

5. A corporate stockholder’s Transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder;

6. A stockholder’s Transfer of shares of Preferred Stock of the corporation (or any shares of Common Stock issued upon conversion thereof);

7. A corporate stockholder’s Transfer of any or all of its shares to any or all of its stockholders; or

8. A Transfer by a stockholder that is a limited or general partnership to any or all of its partners or former partners in accordance with partnership interests.

In any such case, the transferee, assignee, or other recipient shall receive and hold such stock subject to the provisions of this Section and any other restrictions set forth in these Bylaws, and there shall be no further Transfer of such stock except in accord with this Section and the other provisions of these Bylaws.
(g) The provisions of this Bylaw may be waived with respect to any Transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares to be transferred by the transferring stockholder). This Bylaw may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(h) Any Transfer, or purported Transfer, of securities of the corporation shall be null and void unless the terms, conditions, and provisions of this Bylaw are strictly observed and followed.

(i) The foregoing right of first refusal shall terminate upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the SEC under the Securities Act of 1933, as amended.

(j) The certificates representing shares of Common Stock of the corporation that are subject to the right of first refusal in paragraph (a) of this Section shall bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

“THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION.”

(k) To the extent this Section conflicts with any written agreements between the corporation and the stockholder attempting to Transfer shares, such agreement shall control.

Section 38. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day immediately preceding the day on which notice is given, or if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than 10 days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within 10 days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within 10 days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is
required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to
the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having
custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation’s registered office shall be by
hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board
of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be
at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution
or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose
of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the
resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the
record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the
resolution relating thereto.

Section 39. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the
owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such
share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of
Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 40. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates
(covered in Section 34 of these Bylaws), may be signed by the Chairman of the Board of Directors, the Chief Executive Officer, the President or any
Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal
imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant
Treasurer; provided, however, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where
permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the
signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of
the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as
foresaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of
Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or
other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the
bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless
may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been
used thereon had not ceased to be such officer of the corporation.
ARTICLE IX

DIVIDENDS

Section 41. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 42. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 43. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 44. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Executive Officers. The corporation shall indemnify its directors and executive officers (for the purposes of this Article, “executive officers” shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; provided, however, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, provided, further, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under paragraph (d) of this Section.

(b) Other Officers, Employees and Other Agents. The corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding,
whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding, provided, however, that, if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Section, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Section shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Section to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within 90 days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise as a defense to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his or her conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.
(e) **Non-Exclusivity of Rights.** The rights conferred on any person by this Section shall not be exclusive of any other right that such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

(f) **Survival of Rights.** The rights conferred on any person by this Section shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) **Insurance.** To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Section.

(h) **Amendments.** Any repeal or modification of this Section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) **Saving Clause.** If this Section or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under applicable law.

(j) **Certain Definitions.** For the purposes of this Section, the following definitions shall apply:

1. The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

2. The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

3. The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger that, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

4. References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the
request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint
venture, trust or other enterprise.

(5) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise
taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any
service as a director, officer, employee or agent of the corporation that imposes duties on, or involves services by, such director, officer, employee, or
agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably
believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to
the best interests of the corporation” as referred to in this Section.

ARTICLE XII
NOTICES

Section 45. Notices.

(a) Notice to Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 of
these Bylaws. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with
such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by
United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in paragraph (a) of this
Section, or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it shall be sent to such address as such director shall
have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its
transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the
stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same,
shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of
notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in
respect of any other or others.

(e) Notice to Person with Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of
law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice
to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such
notice to such person. Any action or meeting that shall be taken or held without notice to any such person with whom communication is unlawful shall
have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing
of a certificate under any provision of the DGCL, the certificate shall state, if
such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) **Notice to Stockholders Sharing an Address.** Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

**ARTICLE XIII**

**AMENDMENTS**

**Section 46. Amendments.** The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

**ARTICLE XIV**

**LOANS TO OFFICERS**

**Section 47. Loans to Officers.** Except as otherwise prohibited under applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

**ARTICLE XV**

**MISCELLANEOUS**

**Section 48. Forum.** Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the corporation; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the corporation to the corporation or the corporation’s stockholders; (iii) any action asserting a claim against the corporation or any director or officer or other employee of the corporation arising pursuant to any provision of the DGCL, the certificate of incorporation or the Bylaws of the corporation; or (iv) any action asserting a claim against the corporation or any director or officer or other employee of the corporation governed by the internal affairs doctrine.
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Schedule A    -    Schedule of Investors
Schedule B    -    Schedule of Key Holders
THIS AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT (this “Agreement”), is made as of March 19, 2021, by and among Icosavax, Inc., a Delaware corporation (the “Company”), each of the investors listed on Schedule A hereto, (each of which is referred to in this Agreement as an “Investor”), each of the stockholders listed on Schedule B hereto (each of whom is referred to herein as a “Key Holder”) and any additional purchaser of Preferred Stock (as defined below) that becomes a party to this Agreement in accordance with Section 6.9 hereof.

RECITALS

WHEREAS, certain of the Investors (the “Existing Investors”) hold shares of the Company’s Series A-1 Preferred Stock (as defined below) and Series A-2 Preferred Stock (as defined below) and possess certain registration rights, information rights, rights of first offer and other rights pursuant to that certain Investors’ Rights Agreement, dated as of August 15, 2019, by and among the Company and such Existing Investors (the “Prior Agreement”);

WHEREAS, the Existing Investors are holders of a majority of the Registrable Securities (as defined in the Prior Agreement) of the Company as of the date hereof, and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement; and

WHEREAS, certain of the Investors are parties to that certain Series B Preferred Stock Purchase Agreement of even date herewith by and among the Company and such Investors (as may be amended from time to time, the “Purchase Agreement”), under which certain of the Company’s and such Investors’ obligations are conditioned upon the execution and delivery of this Agreement by such Investors, the Key Holders and the Company.

NOW, THEREFORE, the Company and the Existing Investors hereby agree that the Prior Agreement is hereby amended and restated in its entirety as set forth herein, and the parties to this Agreement further agree as follows:

1. **Definitions.** For purposes of this Agreement:

   “Adams Street” means Adams Street Growth Equity Fund VII or any of its Affiliates.

   “Affiliate” means, with respect to any specified Person, any other Person who, directly or indirectly, controls by, or is under common control with such Person, including without limitation any general partner, managing member, officer, director or trustee of such Person, or any venture capital fund, investment company or fund or any other entity now or hereafter existing that is controlled by one or more general partners, managing members or investment adviser of, or shares the same management company or investment adviser with, such Person.

   “Aventis” means Aventis, Inc. or any of its Affiliates.

   “Board” means the Company’s Board of Directors.

   “Certificate of Incorporation” means the Company’s Amended and Restated Certificate of Incorporation, as may be amended from time to time.

   “Adams Street” means Adams Street Growth Equity Fund VII or any of its Affiliates.
“Common Stock” means shares of the Company’s common stock, par value $0.0001 per share.

“Competitor” means, as of any date, a Person engaged, directly or indirectly (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the business conducted or proposed to be conducted by the Company on such date, but shall not include the Major Investors and their Affiliates, or any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than twenty percent (20%) of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the board of directors of any Competitor.

“Competitor” means, as of any date, a Person engaged, directly or indirectly (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the business conducted or proposed to be conducted by the Company on such date, but shall not include the Major Investors and their Affiliates, or any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than twenty percent (20%) of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the board of directors of any Competitor.

“Damages” means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

“Derivative Securities” means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

“DPA” means Section 721 of the Defense Production Act, as amended, including all implementing regulations thereof.


“Excluded Registration” means (i) a registration relating to the sale or grant of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, equity incentive or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

“Form S-1” means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

“Form S-3” means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits forward incorporation of substantial information by reference to other documents filed by the Company with the SEC.

“GAAP” means generally accepted accounting principles in the United States as in effect from time to time.

“Holder” means any holder of Registrable Securities who is a party to this Agreement.
“Immediate Family Member” means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, life partner or similar statutorily-recognized domestic partner, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

“Initiating Holders” means, collectively, Holders who properly initiate a registration request under this Agreement.

“IPO” means the Company’s first underwritten public offering of its Common Stock under the Securities Act.

“Key Holder Registrable Securities” means (i) the shares of Common Stock held by the Key Holders, and (ii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of such shares.

“Major Investor” means any Investor that, individually or together with such Investor’s Affiliates, holds at least $4,999,990 of shares of Registrable Securities, based on the original purchase prices of such securities, and solely for purposes of Section 4 hereof, University of Washington (“UW”).

“NanoDimension” means NanoDimension III, L.P. or any of its Affiliates.

“New Securities” means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

“Person” means any individual, corporation, partnership, trust, limited liability company, association or other entity.

“Preferred Directors” means, collectively, the Series A-1 Directors and the Series B Director.

“Preferred Stock” means, collectively, the Series A-1 Preferred Stock, the Series A-2 Preferred Stock, the Series B-1 Preferred Stock and the Series B-2 Preferred Stock.


“RA Capital” means RA Capital NEXUS Fund II, L.P or any of its Affiliates.

“Registrable Securities” means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company acquired by the Investors after the date hereof; (iii) the Key Holder Registrable Securities, provided, however, that such Key Holder Registrable Securities shall not be deemed Registrable Securities and the Key Holders shall not be deemed Holders for the purposes of Sections 2.1 (and any other applicable Section or Subsection with respect to registrations under Subsection 2.1) and 2.10 and the first sentence of Section 6.6; and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (j) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not
“Registrable Securities then outstanding” means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

“Restricted Securities” means the securities of the Company required to be notated with the legend set forth in Subsection 2.12(b) hereof.

“SEC” means the Securities and Exchange Commission.

“SEC Rule 144” means Rule 144 promulgated by the SEC under the Securities Act.

“SEC Rule 145” means Rule 145 promulgated by the SEC under the Securities Act.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Selling Expenses” means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

“Series A-1 Director” means any director of the Company that the holders of record of the Series A-1 Preferred Stock are entitled to elect, exclusively and as a separate class, pursuant to the Company’s Certificate of Incorporation.

“Series A-1 Preferred Stock” means the shares of Series A-1 Preferred Stock, $0.0001 par value per share, of the Company.

“Series A-2 Preferred Stock” means shares of Series A-2 Preferred Stock, $0.0001 par value per share, of the Company.

“Series B Director” means any director of the Company that the holders of record of the Series B-1 Preferred Stock and Series B-2 Preferred Stock are entitled to elect, voting together as a single class on an as-converted basis, pursuant to the Company’s Certificate of Incorporation.

“Series B-1 Preferred Stock” means shares of Series B-1 Preferred Stock, $0.0001 par value per share, of the Company.

“Series B-2 Preferred Stock” means shares of Series B-2 Preferred Stock, $0.0001 par value per share, of the Company.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration
statement for the IPO, the Company receives a request from Holders holding at least fifty percent (50%) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of $10 million or more, then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the “Demand Notice”) to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $3 million, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company’s chief executive officer stating that in the good faith judgment of the Board it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than sixty (60) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such sixty (60) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a) (i) during the period that is sixty (60) days before the Company’s good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b) (i) during the period that is thirty (30) days before the Company’s good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration,
provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d); provided that if such withdrawal is during a period when the Company has deferred taking action pursuant to Subsection 2.1(c), then the Initiating Holders may withdraw their request for registration and such registration will not be counted as "effected" for purposes of this Subsection 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration, a registration relating to a demand pursuant to Section 2.1 or the IPO), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder’s Registrable Securities in such registration shall be conditioned upon such Holder’s participation in such underwriting and the inclusion of such Holder’s Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares.

(b) In connection with any offering involving an underwriting of shares of the Company’s capital stock pursuant to Subsection 2.2, the Company shall not be required to include any of
the Holders’ Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity, if any, as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, (ii) the number of Registrable Securities included in the offering be reduced below thirty (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder’s securities are included in such offering, or (iii) notwithstanding (ii) above, any Registrable Securities which are not Key Holder Registrable Securities be excluded from such underwriting unless all Key Holder Registrable Securities are first excluded from such offering. For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single “selling Holder,” and any pro rata reduction with respect to such “selling Holder” shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such “selling Holder,” as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as “effected” if, as a result of an exercise of the underwriter’s cutback provisions in Subsection 2.3(a), the total number of Registrable Securities that Holders have requested to be included in such registration statement are not actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to one hundred eighty (180) days to the extent necessary to keep the registration statement effective until all such Registrable Securities are sold;

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(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company’s officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company’s directors may implement a trading program under Rule 10b5-1 of the Exchange Act.
2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder’s Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers’ and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $50,000, of one counsel for the selling Holders (“Selling Holder Counsel”), shall be borne and paid by the Company; provided, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the
Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party’s ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties’ relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement,
and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder’s liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least thirty percent (30%) of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder (i) to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included; or (ii) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder, provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9.
2.11 **"Market Stand-off" Agreement.** Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for the IPO or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall apply only to the IPO, shall not apply to transactions (including, without limitation, any swap, hedge or similar agreement or arrangement) or announcements, in each case, relating to securities acquired in the IPO or securities acquired in open market or other transactions from and after the IPO or that otherwise do not involve or relate to securities of the Company owned by a Holder or its Affiliates prior to the IPO, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers, directors and stockholders (together with their Affiliates) owning more than 1% of the Company’s outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Preferred Stock) are subject to the same restrictions. The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions or any or all of such agreements by the Company or the underwriters shall apply pro rata to all Company stockholders that are subject to such agreements, based on the number of shares subject to such agreements.

2.12 **Restrictions on Transfer.**

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, the Company shall not require any transferee of shares pursuant to an effective registration statement or, following the IPO, SEC Rule 144, in each case, to be bound by the terms of this Agreement. For the avoidance of doubt, a customary arrangement in connection with the deposit of Registrable Securities in a non-margin custodial account shall not be deemed a sale, transfer or pledge for purposes of this Agreement so long as such registrable securities are in certificated form (it being understood that the Company may require the exchange of any such certificated securities for book-entry shares upon the IPO).

(b) Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger,
consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be notated with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or following the IPO, the transfer is made pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder’s intention to effect such sale, pledge, or transfer, provided that no such notice shall be required if the intended sale, pledge or transfer complies with SEC Rule 144. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder’s expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a “no action” letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a notice, legal opinion or “no action” letter (x) in any transaction in compliance with SEC Rule 144; or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsections 2.1 or 2.2 shall terminate upon the earliest to occur of:
(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company’s Certificate of Incorporation;

(b) such time after consummation of the IPO as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder’s shares without limitation during a three-month period without registration; and

(c) the fifth (5th) anniversary of the IPO.

3. Information and Observer Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor, provided that the Board has not reasonably determined that such Major Investor is a Competitor:

(a) as soon as practicable, but in any event within one hundred fifty (150) days after the end of each fiscal year of the Company (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, (iii) a comparison between (x) the actual amounts as of and for such fiscal year and (y) the comparable amounts for the prior year and as included in the Budget (as defined below) for such year, and (iv) a capitalization table as of the end of such year, with such financial statements referenced in (i) and (ii) to be audited and certified by independent public accountants of at least regionally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each quarter of each fiscal year of the Company, unaudited statements of income and cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of stockholders’ equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments; and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock, all in sufficient detail as to permit the Major Investors to calculate their respective percentage equity ownership in the Company;

(d) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the “Budget”), approved by the Board (including approval of at least three (3) of the Preferred Directors) and prepared on a quarterly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company;

(e) with respect to the financial statements called for in Subsection 3.1(a) and Subsection 3.1(b), an instrument executed by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Subsection 3.1(b)) and fairly present the financial condition of the Company and its results of operation for the periods specified therein; and
such other information relating to the financial condition, business, prospects, or corporate affairs of the Company as any Major Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Subsection 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in a form acceptable to the Company); or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Subsection 3.1 to the contrary, the Company may cease providing the information set forth in this Subsection 3.1 during the period starting with the date sixty (60) days before the Company’s good-faith estimate of the date of filing of a registration statement (the “Cessation Period”) if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company’s covenants under this Subsection 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective and that, upon such reinstatement of the Company’s covenants under this Section 3.1, the Company shall promptly deliver to each Major Investor all information required by this Section 3.1 for the Cessation Period.

3.2 Inspection. The Company shall permit each Major Investor (provided that the Board has not reasonably determined that such Major Investor is a Competitor), at such Major Investor’s expense, to visit and inspect the Company’s properties; examine its books of account and records; and discuss the Company’s affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Subsection 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in a form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Observer Rights.

(a) As long as Qiming owns not less than twenty-five percent (25%) of the shares of the Preferred Stock it has purchased as of the date hereof (or an equivalent amount of Common Stock issued upon conversion thereof), subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Preferred Stock, the Company shall invite a representative of Qiming to attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if the Company reasonably determines, upon advice of counsel, that access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest.

(b) As long as Aventis owns not less than twenty-five percent (25%) of the shares of the Preferred Stock it has purchased as of the date hereof (or an equivalent amount of Common
Stock issued upon conversion thereof), subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Preferred Stock, the Company shall invite a representative of Aventis to attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if the Company reasonably determines, upon advice of counsel, that access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest.

(c) As long as RA Capital owns not less than twenty-five percent (25%) of the shares of the Series B-1 Preferred Stock it has purchased under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series B-1 Preferred Stock, the Company shall invite a representative of RA Capital to attend all meetings of the Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if the Company reasonably determines, upon advice of counsel, that access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest.

3.4 Termination of Information, Inspection and Observer Rights. The covenants set forth in Subsection 3.1, Subsection 3.2 and Subsection 3.3 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company’s Certificate of Incorporation, whichever event occurs first.

3.5 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company’s intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Subsection 3.5 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company’s confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, that an Investor may disclose confidential information (i) on a confidential basis, to its (or its Affiliates’) attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring, and making decisions with respect to, its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Subsection 3.5; (iii) to any existing or prospective Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as requested by, or in such Investor’s or its Affiliates’ ordinary course reporting to or examinations or similar processes by, any governmental authority, regulatory body or agency, stock exchange or self-regulatory organization.
or (v) as may otherwise be required by law, regulation, rule, court order or subpoena (or other legal process), provided that, with respect to this clause (v), the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer.

(a) Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted to it in such proportions as it deems appropriate, among (i) itself and (ii) its Affiliates; provided that each such Affiliate (x) is not a Competitor, unless such party’s purchase of New Securities is otherwise consented to by the Board, and (y) agrees to enter into this Agreement and each of the Voting Agreement and Right of First Refusal and Co-Sale Agreement (as such terms are defined in the Purchase Agreement), as an “Investor” under each such agreement (provided that any Competitor shall not be entitled to any rights as a Major Investor under Subsections 3.1, 3.2 and 4.1 hereof).

(b) The Company shall give notice (the “Offer Notice”) to each Major Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities. In addition, UW shall notify Bill and Melinda Gates Foundation of the Offer Notice as required, if at all, by any agreement between UW and BMGF and the Company shall discuss in good faith with BMGF the potential participation by BMGF the potential participation by BMGF in the sale and purchase of such New Securities in such amounts as may be mutually acceptable to the Company and BMGF.

(c) By notification to the Company within twenty (20) days after the Offer Notice is given, each Major Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock then held by such Major Investor (including all shares of Common Stock then issuable (directly or indirectly)) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held by such Major Investor, bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and other Derivative Securities then outstanding). At the expiration of such twenty (20) day period, the Company shall promptly notify each Major Investor that elects to purchase or acquire all the shares available to it (each, a “Fully Exercising Investor”) any other Major Investor’s failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Major Investors were entitled to subscribe but that were not subscribed for by the Major Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of all Preferred Stock and other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Subsection 4.1(c) shall occur within the later of ninety (90) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Subsection 4.1(c).

(d) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Subsection 4.1(c), the Company may, during the ninety (90) day period following the expiration of the periods provided in Subsection 4.1(c), offer and sell the remaining
unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Subsection 4.1.

(e) The right of first offer in this Subsection 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Company’s Certificate of Incorporation); (ii) shares of Series B-1 Preferred Stock and Series B-2 Preferred Stock issued pursuant to the Purchase Agreement; and (iii) shares of Common Stock issued in the IPO.

4.2 Termination. The covenants set forth in Subsection 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company’s Certificate of Incorporation.

5. Additional Covenants.

5.1 Insurance. The Company shall maintain insurance policies, from financially sound and reputable insurers, Directors and Officers liability insurance in an amount and on terms and conditions satisfactory to the Board, including approval of at least three (3) of the Preferred Directors, until such time as the Board, including approval of at least three (3) of the Preferred Directors determines that such insurance should be discontinued. Notwithstanding any other provision of this Section 5.1 to the contrary, for so long as a Preferred Director is serving on the Board, the Company shall not cease to maintain a Directors and Officers liability insurance policy in at least the amount of the initial policy approved by the Board unless approved by at least three (3) Preferred Directors (for so long as at least three (3) Preferred Directors are then serving, and otherwise by a majority of the seated Preferred Directors).

5.2 Employee Agreements. The Company will cause (i) each Person now or hereafter employed by it or by any subsidiary or engaged by the Company or any subsidiary as a consultant or independent contractor with access to confidential information and/or trade secrets to enter into a non-disclosure and proprietary information and inventions agreement; and (ii) each Person now or hereafter employed by it to enter into a non-competition (covering the period of employment) and non-solicitation agreement (covering a one-year period following employment termination). In addition, the Company shall not amend, modify, terminate, waive, or otherwise alter, in whole or in part, any of the above-referenced agreements (or the form thereof to be used by the Company with employees after the date hereof) or any restricted stock agreement between the Company and any employee, without the consent of the Board (or any committee thereof), including approval of at least three (3) of the Preferred Directors. Notwithstanding the foregoing, any approval by a duly elected committee of the Board shall only require the approval of at least two (2) of the Preferred Directors.

5.3 Employee Stock. Unless otherwise approved by the Board (or any committee thereof), including approval of at least three (3) of the Preferred Directors, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company’s capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months, and (ii) a market stand-off provision substantially similar to that in Subsection 2.11. Without the
prior approval by the Board (or any committee thereof), including approval of at least three (3) of the Preferred Directors, the Company shall not amend, modify, terminate, waive or otherwise alter, in whole or in part, any stock purchase, stock restriction or option agreement with any employee or service provider if such amendment would cause it to be inconsistent with this Subsection 5.3. In addition, unless otherwise approved by the Board (or any committee thereof), including approval of at least three (3) of the Preferred Directors, the Company shall retain (and not waive) a “right of first refusal” on employee transfers until the Company’s IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock. Notwithstanding the foregoing, any approval by a duly elected committee of the Board shall only require the approval of at least two (2) of the Preferred Directors.

5.4 Qualified Small Business Stock. The Company shall use commercially reasonable efforts to cause the shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock, as well as any shares into which such shares are converted, within the meaning of Section 1202(f) of the Internal Revenue Code (the “Code”), to constitute “qualified small business stock” as defined in Section 1202(c) of the Code (collectively, the “Qualified Shares”); provided, however, that such requirement shall not be applicable if the Board determines, in its good-faith business judgment, that such qualification is inconsistent with the best interests of the Company. The Company shall submit to its stockholders (including the Investors) and to the Internal Revenue Service any reports that may be required under Section 1202(d)(1)(C) of the Code and the regulations promulgated thereunder. In addition, within twenty (20) business days after any Investor’s written request therefor, the Company shall, at its option, either (i) deliver to such Investor a written statement indicating whether (and what portion of) such Investor’s Qualified Shares constitute “qualified small business stock” as defined in Section 1202(c) of the Code or (ii) deliver to such Investor such factual information in the Company’s possession as is reasonably necessary to enable such Investor to determine whether (and what portion of) such Qualified Shares constitute “qualified small business stock” as defined in Section 1202(c) of the Code.

5.5 Matters Requiring Investor Director Approval. So long as the holders of Preferred Stock are entitled to elect at least one (1) or more Preferred Directors, the Company hereby covenants and agrees with each of the Investors that it shall not, nor shall it permit any Affiliate of the Company to, without approval of the Board (or any committee thereof), which approval must include the affirmative vote of at least three (3) of the Preferred Directors, provided, that, any approval by a duly elected committee of the Board shall only require the approval of at least two (2) of the Preferred Directors:

(a) make, or permit any subsidiary to make, any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Company;

(b) make, or permit any subsidiary to make, any loan or advance to any Person, including, without limitation, any employee or director of the Company or any subsidiary, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board;

(c) guarantee, directly or indirectly, or permit any subsidiary to guarantee, directly or indirectly, any indebtedness, except for trade accounts of the Company or any subsidiary arising in the ordinary course of business;

(d) make any investment inconsistent with any investment policy approved by the Board;
(e) incur any aggregate indebtedness or liability or undertake any transaction or expenditure in excess of $500,000 that is not already included in a budget approved by the Board, other than trade credit incurred in the ordinary course of business;

(f) otherwise enter into or be a party to any transaction with any director, officer or employee of the Company or any “associate” (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Person, including without limitation any “management bonus” or similar plan providing payments to employees in connection with a Deemed Liquidation Event, except for transactions contemplated by this Agreement and the Purchase Agreement, except for expense reimbursement in the ordinary course of business and for other transactions resulting in payments to or by the Company in an amount less than $10,000;

(g) hire, terminate, or change the compensation of the executive officers, including approving any option grants or stock awards to the executive officers;

(h) change the principal business of the Company, enter new lines of business, or exit the current lines of business;

(i) sell, assign, license, pledge or encumber material technology or intellectual property, other than licenses granted in the ordinary course of business;

(j) hire, terminate or amend the terms of engagement of any financial advisors, investment bankers or underwriters (other than financial advisors assisting with cash management and similar treasury-related matters only);

(k) amend the accounting policies previously adopted or change the financial year of the Company;

(l) appoint or change the Company’s auditors;

(m) enter into an agreement with any senior level officer or any employee providing for total annual compensation greater than or equal to $300,000;

(n) acquire a substantial portion of the assets or business of another company or entity (whether by merger, share purchase or asset acquisition) or any other acquisition of material assets;

(o) amend the Company’s 2017 Equity Incentive Plan or enter into a similar equity incentive plan;

(p) adopt or amend the Budget; or

(q) enter into any corporate strategic relationship involving the payment, contribution or assignment by the Company or to the Company of money or assets greater than $500,000.

5.6 **Board Matters.** Unless otherwise determined by the vote of a majority of the directors then in office, the Board shall meet at least quarterly in accordance with an agreed-upon schedule. The Company shall reimburse the nonemployee directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company’s travel policy) in connection with attending meetings of the Board (or any committee of the Board).
5.7 **Successor Indemnification.** If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board as in effect immediately before such transaction, whether such obligations are contained in the Company’s Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

5.8 **Indemnification Matters.** The Company hereby acknowledges that one or more of the Preferred Directors may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their Affiliates (collectively, the “Investor Indemnitors”). The Company hereby agrees (a) that it is the indemnitor of first resort (i.e., its obligations to any such Preferred Director are primary and any obligation of the Investor Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Preferred Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Preferred Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Preferred Director to the extent legally permitted and as required by the Company’s Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such Preferred Director), without regard to any rights such Preferred Director may have against the Investor Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Investor Indemnitors from any and all claims against the Investor Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Investor Indemnitors on behalf of any such Preferred Director with respect to any claim for which such Preferred Director has sought indemnification from the Company shall affect the foregoing and the Investor Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Preferred Director against the Company. The Preferred Directors and the Investor Indemnitors are intended third-party beneficiaries of this Subsection 5.8 and shall have the right, power and authority to enforce the provisions of this Subsection 5.8 as though they were a party to this Agreement.

5.9 **Right to Conduct Activities.** The Company hereby agrees and acknowledges that each Major Investor is a professional investment organization, and as such reviews the business plans and related proprietary information of many enterprises, some of which may compete directly or indirectly with the Company’s business (as currently conducted or as currently proposed to be conducted). The Company hereby agrees that, to the extent permitted under applicable law, each Major Investor shall not be liable to the Company for any claim arising out of, or based upon, (i) the investment by a Major Investor in any entity competitive with the Company, or (ii) actions taken by any partner, officer, employee or other representative of such Major Investor to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company’s confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

5.10 **Critical Technology Matters.** If to the Company’s knowledge (i) any pre-existing products or services provided by the Company are re-categorized by the U.S. government as a critical technology within the meaning of the DPA, or would reasonably be considered to constitute the design, fabrication, development, testing, production or manufacture of a critical technology after a re-categorization of selected technologies by the U.S. government, or (ii) after execution of the Purchase Agreement, the Company engages in any activity that could reasonably be considered to constitute the design, fabrication, development, testing, production or manufacture of a critical technology within the
meaning of the DPA: the Company shall promptly notify the Major Investors of (i) such change in the categorization of its products, services, or technology or (ii) its engagement in the design, fabrication, development, testing, production or manufacture of a critical technology.

5.11  **Tax Matters.**

(a) The Company and each Investor agrees that it is their intention that (a) the Series B-1 Preferred Stock shall be treated as stock that is not “preferred stock” within the meaning of Section 305 of the Internal Revenue Code of 1986, as amended (the “Code”) and the Treasury Regulations issued thereunder, and (b) the Investors shall not be required to include in income as a dividend for U.S. federal income tax purposes any income or gain in respect of the Series B-1 Preferred Stock on account of the accrual of dividends thereon (including any deemed dividends or as a result of any discount) unless and until such dividends are declared and paid in cash. The Company and each Investor agrees agree to take no positions or actions inconsistent with such treatment (including on any Internal Revenue Service Form 1099), unless otherwise required by a change in applicable law after the Closing, as defined in the Purchase Agreement.

(b) The Company shall use commercially reasonable efforts to cooperate with each Investor to structure any redemption of the Series B-1 Preferred Stock permitted under the terms of the Company’s Certificate of Incorporation to be treated as a payment in exchange for stock pursuant to Section 302 of the Code.

Promptly following (and in any event within ten (10) days after receipt of) written request by an Investor, the Company shall provide such Investor with a written statement informing such Investor whether such Investor’s interest in the Company constitutes a United States real property interest. The Company’s determination shall comply with the requirements of Treasury Regulation Section 1.897-2(h)(1) or any successor regulation, and the Company shall provide timely notice to the Internal Revenue Service, in accordance with and to the extent required by Treasury Regulation Section 1.897-2(h)(2) or any successor regulation, that such statement has been made. The Company’s obligation to furnish such written statement shall continue notwithstanding the fact that a class of the Company’s stock may be regularly traded on an established securities market or the fact that there is no Preferred Stock then outstanding.

5.12  **Termination of Covenants.** The covenants set forth in this Section 5, except for Subsections 5.8 and 5.9, shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company’s Certificate of Incorporation.

6.  **Miscellaneous.**

6.1  **Successors and Assigns.** The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder’s Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder’s Immediate Family Members; or (iii) after such transfer, together with its Affiliates, is a Major Investor; **provided, however,** that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of **Subsection 2.11.** For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or stockholder of a Holder; (2) who is a Holder’s Immediate Family Member; or (3) that is a trust for the
benefit of an individual Holder or such Holder’s Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 **Governing Law.** This Agreement shall be governed by the internal law of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

6.3 **Counterparts.** This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. federal E-SIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.4 **Titles and Subtitles.** The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 **Notices.** All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail during the recipient’s normal business hours, and if not sent during normal business hours, then on the recipient’s next business day; (iii) for addresses in the United States of America, five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier (for addresses in the United States of America) or three (3) business days after deposit with an internationally recognized overnight courier (for addresses outside the United States of America), in each case freight prepaid, specifying next business day (or, for addresses outside the United States of America, next available business day) delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A or Schedule B hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company or to such email address or physical address as subsequently modified by written notice given in accordance with this Subsection 6.5. If notice is given to the Company, a copy shall also be sent to Latham & Watkins LLP, 12670 High Bluff Drive, San Diego, CA 92130, Attn: Cheston J. Larson; and if notice is given to the Investors, a copy shall also be sent to DLA Piper LLP (US), 701 Fifth Avenue, Suite 6900, Seattle, WA 98104, Attn: Steven R. Yentzer & Kerra J. Melvin and Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, MA 02109, Attn: Jason Kropp.

6.6 **Amendments and Waivers.** Any term of this Agreement may be amended or terminated and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the Requisite Holders (as such term is defined in the Company’s Certificate of Incorporation); provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company’s failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be
waived by any waiving party on such party’s own behalf, without the consent of any other party. Notwithstanding the foregoing:

(a) this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver (i) does not increase such Investor’s liabilities or obligations and (ii) applies to all Investors in the same fashion; provided, that (x) a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction, (y) Subsections 3.1, 3.2 and 4, and any other section of this Agreement applicable to the Major Investors (including this clause (y) of this Subsection 6.6) may not be amended, modified, terminated or waived without the written consent of the Requisite Holders, and (z) the definition of “Competitor”, Subsections 3.3 and 5.9 and this clause (z) of this Subsection 6.6 may not be amended, modified, terminated or waived without the written consent of Qiming, Aventis, Adams Street, NanoDimension and RA Capital.

(b) Schedule A and Schedule B hereto may be amended by the Company from time to time to add transferees of any Registrable Securities in compliance with the terms of this Agreement without the consent of the other parties; and Schedule A and Schedule B hereto may also be amended by the Company after the date of this Agreement without the consent of the other parties to add information regarding any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities, or of Preferred Stock, held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock after the date hereof, any purchaser of such shares of Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an “Investor” for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an “Investor” hereunder.

6.10 Entire Agreement; Effect on Prior Agreement. This Agreement (including any Schedules and Exhibits hereto), the Certificate of Incorporation and the other Transaction Agreements (as defined in the Purchase Agreement) constitute the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the
subject matter hereof existing between the parties is expressly canceled. Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated and superseded and replaced in its entirety by this Agreement and shall be of no further force or effect.

6.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Delaware and to the jurisdiction of the United States District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Delaware or the United States District Court for the District of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

6.12 Waiver of Jury Trial: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.13 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

ICOSAVAX, INC.

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: President and Chief Executive Officer
Address: 1616 Eastlake Ave. E
        Suite 208
        Seattle, WA 98102

[Signature page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

QIMING U.S. HEALTHCARE FUND II, L.P.

By: Qiming U.S. Healthcare GP II, LLC,
its General Partner

By: /s/ Mark McDade
Name: Mark McDade
Title: Managing Partner

[Signature Page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

JOE AND CLARA TSAI FOUNDATION LIMITED

By: Primary Management Limited,
As Sole Director

By: /s/ Authorized Signatory

[Signature Page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

JEFFREY AND LIESL WILKE REVOCABLE TRUST

By: /s/ Jeffrey A. Wilke
Name: Jeffrey A. Wilke
Title: Trustee

[Signature Page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

/s/ Siddharth B. Shenai
Siddharth B. Shenai

[Signature Page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

/s/ Ingrid Pultz
Ingrid Pultz

/s/ Scott Pultz
Scott Pultz

[Signature Page to Amended and Restated Investors’ Rights Agreement]
IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors’ Rights Agreement as of the date first written above.

INVESTOR:

PAGSGROUP, LLC

By: /s/ Judy Pagliuca
Name: Judy Pagliuca
Title: Manager

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**INVESTOR:**

/s/ Brian Hongdi Gu

Brian Hongdi Gu

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INVESTOR:

PNC INVESTMENTS, LLC

By: /s/ Paul Clark
Name: Paul Clark
Title: Manager

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INVESTOR:

/s/ Colin Walsh
Colin Walsh

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INVESTOR:

/s/ Lansing Stewart
Lansing Stewart

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INVESTOR:

STANLEY R. HOLTZMAN

By: /s/ Douglas A. Holtzman
Name: Douglas A. Holtzman
Title: Representative

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INVESTOR:

/s/ Cheston J. Larson
Cheston J. Larson

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INVESTOR:

JBA INVESTORS, LLC

By: /s/ Jeremy Anderson
Name: Jeremy Anderson
Title: Manager

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INVESTOR:

SAHSEN VENTURES, LLC

By: /s/ Bryan White
Name: Bryan White
Title: Managing Member

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INVESTOR:

ADAMS STREET 2016 DIRECT VENTURE/GROWTH FUND LP

By: ASP 2016 Direct Management LP its General Partner
By: ASP 2016 Direct Management LLC its General Partner
By: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

ADAMS STREET 2017 DIRECT VENTURE/GROWTH FUND LP

By: ASP 2017 Direct Management LP its General Partner
By: ASP 2017 Direct Management LLC its General Partner
By: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

ADAMS STREET 2018 DIRECT VENTURE/GROWTH FUND LP

By: ASP 2018 Direct Management LP its General Partner
By: ASP 2018 Direct Management LLC its General Partner
By: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

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INVESTOR:

ADAMS STREET 2019 DIRECT GROWTH EQUITY FUND LP

By: ASP 2019 Direct Management LP its General Partner
   By: ASP 2019 Direct Management LLC its General Partner
   By: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

ADAMS STREET VENTURE/GROWTH FUND VI LP

By: ASP VG Management VI LP its General Partner
   By: ASP VG Management VI LLC its General Partner
   By: Adams Street Partners, LLC its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

ADAMS STREET GROWTH EQUITY FUND VII LP

By: ASP VG Management VII LP, its General Partner
   By: ASP VG Management VII LLC, its General Partner
   By: Adams Street Partners, LLC, its Managing Member

By: /s/ Elisha P. Gould III
Name: Elisha P. Gould III
Title: Partner

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INVESTOR:

NANODIMENSION III, L.P.

By: NanoDimension III Management Limited, its General Partner

By: /s/ Jonathan Nicholson
Name: Jonathan Nicholson
Title: Director

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AVENTIS, INC.

By: /s/ Jason Hafler
Name: Jason P. Hafler
Title: Managing Director, Sanofi Ventures

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INVESTOR:

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC
Its: General Partner

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Manager

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INVESTOR:

RA CAPITAL NEXUS FUND II, L.P.

By: RA Capital Nexus Fund II GP, LLC
Its: General Partner

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Manager

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INVESTOR:

GOOD VENTURES FOUNDATION LLC

By: /s/ Rakesh Mehta
Name: Rakesh Mehta
Title: Authorized Signatory

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INVESTOR:

PERCEPTIVE LIFE SCIENCES MASTER FUND, LTD.

By: Perceptive Advisors, LLC

By: /s/ James H. Mannix
Name: James H. Mannix
Title: Chief Operating Officer

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INVESTOR:

JANUS HENDERSON GLOBAL LIFE SCIENCES FUND

By: Janus Capital Management LLC, its investment advisor

By: /s/ Andrew Acker
Name: Andrew Acker
Title: Authorized Signatory

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INVESTOR:

JANUS HENDERSON BIOTECH INNOVATION
MASTER FUND LIMITED

By: Janus Capital Management LLC, its investment advisor

By: /s/ Andrew Acker
Name: Andrew Acker
Title: Authorized Signatory

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INVESTOR:

JANUS HENDERSON CAPITAL FUNDS PLC ON BEHALF OF ITS SERIES JANUS HENDERSON GLOBAL LIFE SCIENCES FUND

By: Janus Capital Management LLC, its investment advisor

By: /s/ Andrew Acker
Name: Andrew Acker
Title: Authorized Signatory

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INVESTOR:

JANUS HENDERSON HORIZON FUND - BIOTECHNOLOGY FUND

By: Janus Capital Management LLC, its investment advisor

By: /s/ Andrew Acker
Name: Andrew Acker
Title: Authorized Signatory

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INVESTOR:

VIKING GLOBAL OPPORTUNITIES ILLIQUID INVESTMENTS SUB-MASTER LP

By: Viking Global Opportunities Portfolio GP, LLC, its General Partner

By: /s/ Katerina Novak
Name: Katerina Novak
Title: Authorized Signatory

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INVESTOR:

CORMORANT PRIVATE HEALTHCARE FUND III, LP

By: Cormorant Private Healthcare GP, LLC

By: /s/ Bihua Chen
Name: Bihua Chen
Title: Managing Member

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INVESTOR:

CORMORANT GLOBAL HEALTHCARE MASTER FUND, LP

By: Cormorant Global Healthcare GP, LLC

By: /s/ Bihua Chen
Name: Bihua Chen
Title: Managing Member

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INVESTOR:

CRMA SPV, LP

By: Cormorant Asset Management, LP, its attorney-in-fact

By: /s/ Bihua Chen
Name: Bihua Chen
Title: Managing Member

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INVESTOR:

OMEGA FUND VI, L.P.

By: Omega Fund VI GP, L.P., its General Partner

By: Omega Fund VI GP Manager, Ltd., its General Partner

By: /s/ Otello Stampacchia
Name: Otello Stampacchia
Title: Director

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INVESTOR:

CITADEL MULTI-STRATEGY EQUITIES MASTER FUND LTD

By: Citadel Advisors LLC, its portfolio manager

By: /s/ Shellane Mulcahy
Name: Shellane Mulcahy
Title: Authorized Signatory

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KEY HOLDER:

/s/ Neil P. King
Neil P. King, Ph.D.

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KEY HOLDER:

LESLIE D. YAMADA 2016 TRUST

By: /s/ Tadataka Yamada
Name: Tadataka (Tachi) Yamada
Title: Trustee

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KEY HOLDER:

THE ADAM K. AND MARIA M. SIMPSON FAMILY
TRUST DTD. 04/27/07

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: Trustee

[Signature Page to Amended and Restated Investors’ Rights Agreement]
SCHEDULE A

INVESTORS

Name

Sahsen Ventures, LLC
Joe and Clara Tsai Foundation Limited
Jeffrey and Liesl Wilke Revocable Trust
Siddharth B. Shenai
Scott and Ingrid Pultz
PagsGroup, LLC
Brian Hongdi Gu
PNC Investments, LLC
Stanley R. Holtzman
Cheston J. Larson
JBA Investors, LLC
Qiming U.S. Healthcare Fund II, L.P.
Adams Street Growth Equity Fund VII LP
Adams Street Venture/Growth Fund VI LP
Adams Street 2019 Direct Growth Equity Fund LP
Adams Street 2018 Direct Venture/Growth Fund LP
Adams Street 2017 Direct Venture/Growth Fund LP
Adams Street 2016 Direct Venture/Growth Fund LP
NanoDimension III, L.P.
Aventis, Inc.
Lansing Stewart
Colin Walsh
Good Ventures Foundation LLC
RA Capital Healthcare Fund, L.P.
RA Capital NEXUS Fund II, L.P.
JANUS HENDERSON GLOBAL LIFE SCIENCES FUND
JANUS HENDERSON BIOTECH INNOVATION MASTER FUND LIMITED
JANUS HENDERSON CAPITAL FUNDS PLC ON BEHALF OF ITS SERIES
JANUS HENDERSON GLOBAL LIFE SCIENCES FUND
JANUS HENDERSON HORIZON FUND - BIOTECHNOLOGY FUND
VIKING GLOBAL OPPORTUNITIES ILLIQUID INVESTMENTS SUB-MASTER LP
Perceptive Life Sciences Master Fund, Ltd.
Cormorant Private Healthcare Fund III, LP
Cormorant Global Healthcare Master Fund, LP
CRMA SPV, LP
1. **Purpose.**

The purpose of the Plan is to advance the interests of the Company’s stockholders by enhancing the Company’s ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing such persons with equity ownership opportunities and thereby better aligning the interests of such persons with those of the Company’s stockholders. Capitalized terms used in the Plan are defined in Section 11 below.

2. **Eligibility.**

Service Providers are eligible to be granted Awards under the Plan, subject to the limitations described herein.

3. **Administration and Delegation.**

   (a) **Administration.** The Plan will be administered by the Administrator. The Administrator shall have authority to determine which Service Providers will receive Awards, to grant Awards and to set all terms and conditions of Awards (including, but not limited to, vesting, exercise and forfeiture provisions). In addition, the Administrator shall have the authority to take all actions and make all determinations contemplated by the Plan and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Administrator may correct any defect or ambiguity, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem necessary or appropriate to carry the Plan and any Awards into effect, as determined by the Administrator. The Administrator shall make all determinations under the Plan in the Administrator’s sole discretion and all such determinations shall be final and binding on all persons having or claiming any interest in the Plan or in any Award.

   (b) **Appointment of Committees.** To the extent permitted by Applicable Laws, the Board may delegate any or all of its powers under the Plan to one or more Committees. The Board may abolish any Committee at any time and re-vest in itself any previously delegated authority.

4. **Stock Available for Awards.**

   (a) **Number of Shares.** Subject to adjustment under Section 8 hereof, Awards may be made under the Plan covering up to 3,104,064 shares of Common Stock. If any Award expires or lapses or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at or below the original issuance price), in any case in a manner that results in any shares of Common Stock covered by such Award not being issued or being so reacquired by the Company, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. Further, shares of Common Stock delivered (either by actual delivery or attestation) to the Company by a Participant to satisfy the applicable exercise or purchase price of an Award and/or to satisfy any applicable tax withholding obligation (including shares retained by the Company from the Award being exercised or purchased and/or creating the tax obligation) shall be added to the number of shares of Common Stock available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options (as hereinafter defined), the foregoing provisions shall be subject to any
limitations under the Code. Shares of Common Stock issued under the Plan may consist in whole or in part of authorized but unissued shares, shares purchased on the open market or treasury shares.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Administrator may grant Awards in substitution for any options or other stock or stock-based awards granted prior to such merger or consolidation by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Administrator deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a) hereof, except as may be required by reason of Section 422 of the Code.

5. Stock Options.

(a) General. The Administrator may grant Options to any Service Provider, subject to the limitations on Incentive Stock Options described below. The Administrator shall determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to Applicable Laws, as it considers necessary or advisable.

(b) Incentive Stock Options. The Administrator may grant Options intended to qualify as Incentive Stock Options only to employees of the Company, any of the Company’s present or future “parent corporations” or “subsidiary corporations” as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. All Options intended to qualify as Incentive Stock Options shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. Neither the Company nor the Administrator shall have any liability to a Participant, or any other party, (i) if an Option (or any part thereof) which is intended to qualify as an Incentive Stock Option fails to qualify as an Incentive Stock Option or (ii) for any action or omission by the Administrator that causes an Option not to qualify as an Incentive Stock Option, including without limitation, the conversion of an Incentive Stock Option to a Non-Qualified Stock Option or the grant of an Option intended as an Incentive Stock Option that fails to satisfy the requirements under the Code applicable to an Incentive Stock Option. Any Option that is intended to qualify as an Incentive Stock Option, but fails to so qualify for any reason, including without limitation, the portion of any Option becoming exercisable in excess of the $100,000 limitation described in Treasury Regulation Section 1.422-4, shall be treated as a Non-Qualified Stock Option for all purposes.

(c) Exercise Price. The Administrator shall establish the exercise price of each Option and specify the exercise price in the applicable Award Agreement. The exercise price shall be not less than 100% of the Fair Market Value on the date the Option is granted. In the case of an Incentive Stock Option granted to an employee who, at the time of grant of the Option, owns (or is treated as owning under Section 424 of the Code) stock representing more than 10% of the voting power of all classes of stock of the Company (or a “parent corporation” or “subsidiary corporation” thereof within the meaning of Sections 424(e) or 424(f) of the Code, respectively), the per share exercise price shall be no less than 110% of the Fair Market Value on the date the Option is granted.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Administrator may specify in the applicable Award Agreement, provided that the term of any Option shall not exceed ten years. In the case of an Incentive Stock Option granted to an employee who, at the time of grant of the Option, owns (or is treated as owning under Section 424 of the Code) stock representing more than 10% of the voting power of all classes of stock of the Company (or a “parent corporation” or “subsidiary corporation” thereof within the meaning of Sections 424(e) or 424(f) of the Code, respectively), the term of the Option shall not exceed five years.
(e) **Exercise of Option; Notification of Disposition.** Options may be exercised by delivery to the Company of a written notice of exercise, in a form approved by the Administrator (which may be an electronic form), signed by the person authorized to exercise the Option, together with payment in full (i) as specified in Section 5(f) hereof for the number of shares for which the Option is exercised and (ii) as specified in Section 9(e) hereof for any applicable withholding taxes. Unless otherwise determined by the Administrator, an Option may not be exercised for a fraction of a share of Common Stock. If an Option is designated as an Incentive Stock Option, the Participant shall give prompt notice to the Company of any disposition or other transfer of any shares of Common Stock acquired from the Option if such disposition or transfer is made (i) within two years from the grant date with respect to such Option or (ii) within one year after the transfer of such shares to the Participant (other than any such disposition made in connection with a Change in Control). Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Participant in such disposition or other transfer.

(f) **Payment Upon Exercise.** Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for in cash, by wire transfer of immediately available funds or by check, payable to the order of the Company, or, subject to Section 10(h), any Company insider trading policy (including, without limitation, any blackout periods) and Applicable Laws, by:

(i) if the Company is a Publicly Listed Company, unless the Administrator otherwise determines, (A) delivery of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to pay the exercise price, or (B) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to pay the exercise price, provided in either case, that such amount is paid to the Company at such time as may be required by the Administrator;

(ii) to the extent permitted by the Administrator, delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their Fair Market Value, provided (A) such method of payment is then permitted under Applicable Laws, (B) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Company at any time, and (C) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(iii) to the extent permitted by the Administrator, surrendering shares of Common Stock then issuable upon exercise of the Option valued at their Fair Market Value on the date of exercise;

(iv) to the extent permitted by the Administrator, delivery of a promissory note of the Participant to the Company on terms determined by the Administrator;

(v) to the extent permitted by the Administrator, delivery of property of any other kind which constitutes good and valuable consideration as determined by the Administrator; or

(vi) to the extent permitted by the Administrator, any combination of the above permitted forms of payment (including cash or check).

(g) **Early Exercise of Options.** The Administrator may provide in the terms of an Award Agreement that the Service Provider may exercise an Option in whole or in part prior to the full vesting of the Option in exchange for unvested shares of Restricted Stock with respect to any unvested
6. **Restricted Stock; Restricted Stock Units.**

   (a) **General.** The Administrator may grant Restricted Stock, or the right to purchase Restricted Stock, to any Service Provider, subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price from the Participant (or to require forfeiture of such shares if issued at no cost) in the event that conditions specified by the Administrator in the applicable Award Agreement are not satisfied prior to the end of the applicable restriction period or periods established by the Administrator for such Award. In addition, the Administrator may grant to Service Providers Restricted Stock Units, which may be subject to vesting and forfeiture conditions during applicable restriction period or periods, as set forth in an applicable Award Agreement.

   (b) **Terms and Conditions for All Restricted Stock and Restricted Stock Unit Awards.** The Administrator shall determine and set forth in the applicable Award Agreement the terms and conditions applicable to each Restricted Stock and Restricted Stock Unit Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

   (c) **Additional Provisions Relating to Restricted Stock.**

      (i) **Dividends.** Participants holding shares of Restricted Stock will be entitled to all ordinary cash dividends paid with respect to such shares to the extent such dividends have a record date that is on or after the date on which the Participant to whom such Restricted Shares are granted becomes the record holder of such Restricted Shares, unless otherwise provided by the Administrator in the applicable Award Agreement. In addition, unless otherwise provided by the Administrator, if any dividends or distributions are paid in shares, or consist of a dividend or distribution to holders of Common Stock of property other than an ordinary cash dividend, the shares or other property will be subject to the same restrictions on transferability and forfeitability as the shares of Restricted Stock with respect to which they were paid. Each dividend payment will be made as provided in the applicable Award Agreement, but in no event later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the later of (A) the date the dividends are paid to stockholders of that class of stock, and (B) the date the dividends are no longer subject to forfeiture.

      (ii) **Stock Certificates.** The Company may require that any stock certificates issued in respect of shares of Restricted Stock be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee).

   (d) **Additional Provisions Relating to Restricted Stock Units.**

      (i) **Settlement.** Upon the vesting of a Restricted Stock Unit, the Participant shall be entitled to receive from the Company one share of Common Stock or an amount of cash or other property equal to the Fair Market Value of one share of Common Stock on the settlement date, as the Administrator shall determine and as provided in the applicable Award Agreement. The Administrator may provide that settlement of Restricted Stock Units shall occur upon or as soon as reasonably practicable after the vesting of the Restricted Stock Units or shall instead be deferred, on a mandatory basis or at the election of the Participant, in a manner that complies with Section 409A.
(ii) **Voting Rights.** A Participant shall have no voting rights with respect to any Restricted Stock Units unless and until shares are delivered in settlement thereof.

(iii) **Dividend Equivalents.** To the extent provided by the Administrator, a grant of Restricted Stock Units may provide a Participant with the right to receive Dividend Equivalents. Dividend Equivalents may be paid currently or credited to an account for the Participant, may be settled in cash and/or shares of Common Stock and may be subject to the same restrictions on transfer and forfeitability as the Restricted Stock Units with respect to which the Dividend Equivalents are paid, as determined by the Administrator, subject, in each case, to such terms and conditions as the Administrator shall establish and set forth in the applicable Award Agreement.

7. **Other Stock-Based Awards.**

Other Stock-Based Awards may be granted hereunder to Participants, including, without limitation, Awards entitling Participants to receive shares of Common Stock to be delivered in the future. Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan, as stand-alone payments and/or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock, cash or other property, as the Administrator shall determine. Subject to the provisions of the Plan, the Administrator shall determine the terms and conditions of each Other Stock-Based Award, including any purchase price, transfer restrictions, vesting conditions and other terms and conditions applicable thereto, which shall be set forth in the applicable Award Agreement.

8. **Adjustments for Changes in Common Stock and Certain Other Events.**

(a) In the event that the Administrator determines that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), reorganization, merger, consolidation, combination, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of assets of the Company, or exchange of Common Stock or other securities of the Company, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, or other similar corporate transaction or event, as determined by the Administrator, affects the Common Stock such that an adjustment is determined by the Administrator to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Award, then the Administrator may, in such manner as it may deem equitable, adjust any or all of:

(i) the number and kind of shares of Common Stock (or other securities or property) with respect to which Awards may be granted or awarded (including, but not limited to, adjustments of the limitations in Section 4 hereof on the maximum number and kind of shares which may be issued);

(ii) the number and kind of shares of Common Stock (or other securities or property) subject to outstanding Awards;

(iii) the grant or exercise price with respect to any Award; and

(iv) the terms and conditions of any Awards (including, without limitation, any applicable financial or other performance “targets” specified in an Award Agreement).

(b) In the event of any transaction or event described in Section 8(a) hereof (including without limitation any Change in Control) or any unusual or nonrecurring transaction or event
affecting the Company or the financial statements or financial condition of the Company, or any change in any Applicable Laws or accounting principles, the Administrator, on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to or after the occurrence of such transaction or event and either automatically or upon the Participant’s request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to (i) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Award granted or issued under the Plan, (ii) to facilitate such transaction or event or (iii) give effect to such changes in Applicable Laws or accounting principles:

(i) To provide for the cancellation of any such Award in exchange for either an amount of cash or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of such Award or realization of the Participant’s rights had such Award been currently exercisable, payable and fully vested, as applicable; provided that, if the amount that could have been obtained upon the exercise or settlement of such Award or realization of the Participant’s rights, in any case, is equal to or less than zero, then such Award may be terminated without payment;

(ii) To provide that such Award shall vest and, to the extent applicable, be exercisable as to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the provisions of such Award;

(iii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and applicable exercise or purchase price, in all cases, as determined by the Administrator;

(iv) To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Awards, and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards which may be granted in the future;

(v) To replace such Award with other rights or property selected by the Administrator; and/or

(vi) To provide that the Award will terminate and cannot vest, be exercised or become payable after the applicable event.

(c) Notwithstanding the provisions of Section 8(b) above, if a Change in Control occurs and a Participant’s Awards are not continued, converted, assumed, or replaced with a substantially similar award by (i) the Company, or (ii) a successor entity or its parent or subsidiary (an “Assumption”), and provided that the Participant has not had a Termination of Service, then, immediately prior to the Change in Control, such Awards shall become fully vested, exercisable and/or payable, as applicable, and all forfeiture, repurchase and other restrictions on such Awards shall lapse, in which case, such Awards shall be canceled upon the consummation of the Change in Control in exchange for the right to receive the Change in Control consideration payable to other holders of Common Stock (A) which may be on such terms and conditions as apply generally to holders of Common Stock under the Change in Control documents (including, without limitation, any escrow, earn-out or other deferred consideration provisions) or such other terms and conditions as the Administrator may provide, and (B) determined by reference to the number of shares subject to such Awards and net of any applicable exercise price; provided that to the extent that any Awards constitute “nonqualified deferred compensation” that may not
be paid upon the Change in Control under Section 409A without the imposition of taxes thereon under Section 409A, the timing of such payments shall be governed by the applicable Award Agreement (subject to any deferred consideration provisions applicable under the Change in Control documents); and provided, further, that if the amount to which a Participant would be entitled upon the settlement or exercise of such Award at the time of the Change in Control is equal to or less than zero, then such Award may be terminated without payment. The Administrator shall determine whether an Assumption of an Award has occurred in connection with a Change in Control.

(d) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in this Section 8, the Administrator will equitably adjust each outstanding Award, which adjustments may include adjustments to the number and type of securities subject to each outstanding Award and/or the exercise price or grant price thereof, if applicable, the grant of new Awards to Participants, and/or the making of a cash payment to Participants, as the Administrator deems appropriate to reflect such Equity Restructuring. The adjustments provided under this Section 8(d) shall be nondiscretionary and shall be final and binding on the affected Participant and the Company; provided that whether an adjustment is equitable shall be determined by the Administrator.

(e) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of Common Stock or the share price of the Common Stock, including any Equity Restructuring, or if necessary to comply with Applicable Laws or the Code, or for reasons of administrative convenience, the Administrator may, in its sole discretion, refuse to permit the exercise of any Award during a period of up to thirty days prior to the consummation of any such transaction.

(f) Except as expressly provided in the Plan or pursuant to action of the Administrator under the Plan, no Participant shall have any rights by reason of any subdivision or consolidation of shares of stock of any class, the payment of any dividend, any increase or decrease in the number of shares of stock of any class or any dissolution, liquidation, merger, or consolidation of the Company or any other corporation. Except as expressly provided in the Plan or pursuant to action of the Administrator under the Plan, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number of shares of Common Stock subject to an Award or the grant or exercise price of any Award. The existence of the Plan, any Award Agreements and the Awards granted hereunder shall not affect or restrict in any way the right or power of the Company to make or authorize (i) any adjustment, recapitalization, reorganization or other change in the Company’s capital structure or its business, (ii) any merger, consolidation dissolution or liquidation of the Company or sale of Company assets or (iii) any sale or issuance of securities, including without limitation, securities with rights superior to those of the Common Stock or which are convertible into or exchangeable for Common Stock. The Administrator may treat Participants and Awards (or portions thereof) differently under this Section 8.


(a) Transferability of Awards. Except as the Administrator may otherwise determine or provide in an Award Agreement or otherwise, in any case in accordance with Applicable Laws, Awards, including any interest therein, may not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.
Documentation. Each Award shall be evidenced in an Award Agreement, which may be in such form (written, electronic or otherwise) as the Administrator shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award to a Participant need not be identical, and the Administrator need not treat Participants or Awards (or portions thereof) uniformly.

Termination of Status. The Administrator shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or any other change or purported change in a Participant’s Service Provider status and the extent to which, and the period during which, the Participant, the Participant’s legal representative, conservator, guardian or Designated Beneficiary may exercise rights under the Award, if applicable.

Withholding. Each Participant shall pay to the Company, or make provision satisfactory to the Administrator for payment of, any taxes required by law to be withheld in connection with Awards to such Participant no later than the date of the event creating the tax liability. Except as the Administrator may otherwise determine, all such payments shall be made in cash, by wire transfer of immediately available funds or by check, payable to the order of the Company. Notwithstanding the foregoing, Participants may satisfy such tax obligations, subject to Section 10(b), any Company insider trading policy (including blackout periods) and Applicable Laws, to the extent permitted by the Administrator, (i) in whole or in part by delivery of shares of Common Stock, including shares of Common Stock retained from the Award creating the tax obligation, valued at their Fair Market Value, and (ii) if there is a public market for shares of Common Stock at the time the tax obligations are satisfied, unless the Administrator otherwise determines, (A) delivery (including, without limitation, telephonically to the extent permitted by the Company) of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to satisfy the tax obligations, or (B) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to satisfy the tax withholding; provided that such amount is paid to the Company at such time as may be required by the Administrator. The number of shares of Common Stock which may be so withheld or surrendered shall be limited to the number of shares of Common Stock which have a Fair Market Value on the date of withholding or repurchase no greater than the aggregate amount of such liabilities based on the minimum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income. The Company may, to the extent permitted by Applicable Laws, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

Amendment of Award. The Administrator may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or settlement, and converting an Incentive Stock Option to a Non-Qualified Stock Option. The Participant’s consent to such action shall be required unless (i) the Administrator determines that the action, taking into account any related action, would not materially and adversely affect the Participant, or (ii) the change is permitted under Section 8 and 10(f) hereof.

Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company’s counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed
and delivered to the Company such representations or agreements as the Administrator deems necessary or appropriate to satisfy the requirements of any Applicable Laws. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is determined by the Administrator to be necessary to the lawful issuance and sale of any securities hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained.

(h) Acceleration. The Administrator may at any time provide that any Award shall become vested and/or exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

10. Miscellaneous.

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan or any Award, except as expressly provided in an applicable Award Agreement.

(b) No Rights As Stockholder; Certificates. Subject to the provisions of the applicable Award Agreement, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by any Applicable Laws, the Company shall not be required to deliver to any Participant certificates evidencing shares of Common Stock issued in connection with any Award and instead such shares of Common Stock may be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator). The Company may place legends on stock certificates issued under the Plan deemed necessary or appropriate by the Administrator in order to comply with Applicable Laws.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the completion of ten years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company’s stockholders, but Awards previously granted may extend beyond that date in accordance with the terms of the Plan.

(d) Amendment of Plan. The Administrator may amend, suspend or terminate the Plan or any portion thereof at any time; provided that no amendment of the Plan shall materially and adversely affect (as determined by the Administrator) any Award outstanding at the time of such amendment without the consent of the affected Participant. Awards outstanding under the Plan at the time of any suspension or termination of the Plan shall continue to be governed in accordance with the terms of the Plan and the applicable Award Agreement, as in effect prior to such suspension or termination. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary to comply with Applicable Laws.

(e) Provisions for Foreign Participants. The Administrator may modify Awards granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to address differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.
(f) Section 409A.

(i) General. The Company intends that all Awards be structured in compliance with, or to satisfy an exemption from, Section 409A, such that no adverse tax consequences, interest, or penalties under Section 409A apply in connection with any Awards. Notwithstanding anything herein or in any Award Agreement to the contrary, the Administrator may, without a Participant’s prior consent, amend this Plan and/or Awards, adopt policies and procedures, or take any other actions (including amendments, policies, procedures and actions with retroactive effect) as are necessary or appropriate to preserve the intended tax treatment of Awards under the Plan, including without limitation, any such actions intended to (A) exempt this Plan and/or any Award from the application of Section 409A, and/or (B) comply with the requirements of Section 409A, including without limitation any such regulations, guidance, compliance programs and other interpretative authority that may be issued after the date of grant of any Award. The Company makes no representations or warranties as to the tax treatment of any Award under Section 409A or otherwise. The Company shall have no obligation under this Section 10(f) or otherwise to take any action (whether or not described herein) to avoid the imposition of taxes, penalties or interest under Section 409A with respect to any Award and shall have no liability to any Participant or any other person if any Award, compensation or other benefits under the Plan are determined to constitute non-compliant, “nonqualified deferred compensation” subject to the imposition of taxes, penalties and/or interest under Section 409A.

(ii) Separation from Service. With respect to any Award that constitutes “nonqualified deferred compensation” under Section 409A, any payment or settlement of such Award that is to be made upon a termination of a Participant’s Service Provider relationship shall, to the extent necessary to avoid the imposition of taxes under Section 409A, be made only upon the Participant’s “separation from service” (within the meaning of Section 409A), whether such “separation from service” occurs upon or subsequent to the termination of the Participant’s Service Provider relationship. For purposes of any such provision of this Plan or any Award Agreement relating to any such payments or benefits, references to a “termination,” “termination of employment” or like terms shall mean “separation from service.”

(iii) Payments to Specified Employees. Notwithstanding any contrary provision in the Plan or any Award Agreement, any payment(s) of “nonqualified deferred compensation” that are otherwise required to be made under an Award to a “specified employee” (as defined under Section 409A and determined by the Administrator) as a result of his or her “separation from service” shall, to the extent necessary to avoid the imposition of taxes under Code Section 409A(a)(2)(B)(i), be delayed until the expiration of the six-month period immediately following such “separation from service” (or, if earlier, until the date of death of the specified employee) and shall instead be paid (in a manner set forth in the Award agreement) on the day that immediately follows the end of such six-month period or as soon as administratively practicable thereafter (without interest). Any payments of “nonqualified deferred compensation” under such Award that are, by their terms, payable more than six months following the Participant’s “separation from service” shall be paid at the time or times such payments are otherwise scheduled to be made.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, other employee or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan or any Award, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument he or she executes in his or her capacity as an Administrator, director, officer, other employee or agent of the Company. The Company
will indemnify and hold harmless each director, officer, other employee and agent of the Company to whom any duty or power relating to the
administration or interpretation of the Plan has been or will be granted or delegated, against any cost or expense (including attorneys’ fees) or liability
(including any sum paid in settlement of a claim with the Administrator’s approval) arising out of any act or omission to act concerning this Plan unless
arising out of such person’s own fraud or bad faith.

(h) **Lock-Up Period.** The Company may, at the request of any representative of the underwriters or otherwise, in connection with any
registration of the offering of any securities of the Company under the Securities Act, prohibit Participants from, directly or indirectly, selling or
otherwise transferring any shares of Common Stock or other securities of the Company during a period of up to one hundred eighty days following the
effective date of a registration statement of the Company filed under the Securities Act.

(i) **Right of First Refusal.**

   (i) **Before any shares of Common Stock held by a Participant or any permitted transferee (each, a “**Holder**”) may be sold, pledged,
assigned, hypothecated, transferred, or otherwise disposed of (each, a “**Transfer**”), the Company or its assignee(s) shall have a right of first refusal
to purchase the shares of Common Stock proposed to be Transferred on the terms and conditions set forth in this Section 10(i) (the “**Right of First
Refusal**”). In the event that the Company’s charter, bylaws and/or a stockholders’ agreement applicable to the shares of Common Stock contain a
right of first refusal with respect to the shares of Common Stock, such right of first refusal shall apply to the shares of Common Stock to the extent
such provisions are more restrictive than the Right of First Refusal set forth in this Section 10(i) and the Right of First Refusal set forth in this
Section 10(i) shall not in any way restrict the operation of the Company’s charter, bylaws or the operation of any applicable stockholders’
agreement.

   (ii) In the event any Holder desires to Transfer any shares of Common Stock, the Holder shall deliver to the Company a written
notice (the “**Notice**”) stating: (A) the Holder’s bona fide intention to sell or otherwise Transfer such shares of Common Stock; (B) the name of
each proposed purchaser or other transferee (“**Proposed Transferee**”); (C) the number of shares of Common Stock to be Transferred to each
Proposed Transferee; and (D) the price for which the Holder proposes to Transfer the shares of Common Stock (the “**Offered Price**”), and the
Holder shall offer such shares of Common Stock at the Offered Price to the Company or its assignee(s).

   (iii) Within twenty-five days after receipt of the Notice, the Company and/or its assignee(s) may elect in writing to purchase all, but
not less than all, of the shares of Common Stock proposed to be Transferred to any one or more of the Proposed Transferees by delivery of a
written exercise notice to the Holder (a “**Company Notice**”). The purchase price (“**Purchase Price**”) for the shares of Common Stock repurchased
under this Section 10(i) shall be the Offered Price.

   (iv) Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check or wire
transfer), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an
assignee, to the assignee), or by any combination thereof, within five days after delivery of the Company Notice or in the manner and at the times
mutually agreed to by the Company and the Holder. Should the Offered Price specified in the Notice be payable in property other than cash, the
Company or its assignee shall have the right to pay the purchase price in the form of cash equal in amount to the value of such property, as
determined by the Administrator.
(v) If all or a portion of the shares of Common Stock proposed in the Notice to be Transferred are not purchased by the Company and/or its assignee(s) as provided in this Section 10(i), then the Holder may sell or otherwise Transfer such shares of Common Stock to a Proposed Transferee at the Offered Price or at a higher price; provided that such sale or other Transfer is consummated within sixty days after the date of the Notice; and provided, further, that any such sale or other Transfer is effected in accordance with any Applicable Laws and the Proposed Transferee agrees in writing that the provisions of this Plan and the applicable Award Agreement and any other applicable agreements governing the shares of Common Stock to be Transferred shall continue to apply to the shares of Common Stock in the hands of such Proposed Transferee. If the shares of Common Stock described in the Notice are not Transferred to the Proposed Transferee within such sixty-day period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal, as provided herein, before any shares of Common Stock held by the Holder may be sold or otherwise Transferred.

(vi) Anything to the contrary contained in this Section 10(i) notwithstanding and to the extent permitted by the Administrator, the Transfer of any or all of the shares of Common Stock during a Participant’s lifetime or upon a Participant’s death by will or intestacy to the Participant’s Immediate Family or a trust for the benefit of the Participant’s Immediate Family shall be exempt from the Right of First Refusal. As used herein, “Immediate Family” shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister or stepchild (whether or not adopted). In such case, the transferee or other recipient shall receive and hold the shares of Common Stock so Transferred subject to the provisions of this Plan (including the Right of First Refusal), the applicable Award Agreement and any other applicable agreements governing the shares of Common Stock to be Transferred, and there shall be no further Transfer of such shares of Common Stock except in accordance with the terms of this Section 10(i) (or otherwise as expressly provided under the Plan).

(vii) The Right of First Refusal shall terminate as to all shares of Common Stock if the Company becomes a Publicly Listed Company upon such occurrence.

(j) Data Privacy. As a condition of receipt of any Award, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this paragraph by and among, as applicable, the Company and its subsidiaries and affiliates for the exclusive purpose of implementing, administering and managing the Participant’s participation in the Plan. The Company and its subsidiaries and affiliates may hold certain personal information about a Participant, including but not limited to, the Participant’s name, home address and telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title(s), any shares of stock held in the Company or any of its subsidiaries and affiliates, details of all Awards, in each case, for the purpose of implementing, managing and administering the Plan and Awards (the “Data”). The Company and its subsidiaries and affiliates may transfer the Data amongst themselves as necessary for the purpose of implementing, administration and management of a Participant’s participation in the Plan, and the Company and its subsidiaries and affiliates may each further transfer the Data to any third parties assisting the Company in the implementation, administration and management of the Plan. These recipients may be located in the Participant’s country, or elsewhere, and the Participant’s country may have different data privacy laws and protections than the recipients’ country. Through acceptance of an Award, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Participant’s participation in the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the Company or the Participant may elect to deposit any shares of Common Stock. The Data
related to a Participant will be held only as long as is necessary to implement, administer, and manage the Participant’s participation in the Plan. A Participant may, at any time, view the Data held by the Company with respect to such Participant, request additional information about the storage and processing of the Data with respect to such Participant, recommend any necessary corrections to the Data with respect to the Participant or refuse or withdraw the consents herein in writing, in any case without cost, by contacting his or her local human resources representative. The Company may cancel Participant’s ability to participate in the Plan and, in the Administrator’s discretion, the Participant may forfeit any outstanding Awards if the Participant refuses or withdraws his or her consents as described herein. For more information on the consequences of refusal to consent or withdrawal of consent, Participants may contact their local human resources representative.

(k) **Severability.** In the event any portion of the Plan or any action taken pursuant thereto shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provisions had not been included, and the illegal or invalid action shall be null and void.

(l) **Governing Documents.** In the event of any contradiction between the Plan and any Award Agreement or any other written agreement between a Participant and the Company or any Subsidiary of the Company that has been approved by the Administrator, the terms of the Plan shall govern, unless it is expressly specified in such Award Agreement or other written document that a specific provision of the Plan shall not apply.

(m) **Governing Law.** The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding choice-of-law principles of the law of any state that would require the application of the laws of a jurisdiction other than such state.

(n) **Submission to Jurisdiction; Waiver of Jury Trial.** By accepting an Award, each Participant irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of the State of Delaware and of the United States of America, in each case located in the State of Delaware, for any action arising out of or relating to the Plan (and agrees not to commence any litigation relating thereto except in such courts), and further agrees that service of any process, summons, notice or document by U.S. registered mail to the address contained in the records of the Company shall be effective service of process for any litigation brought against it in any such court. By accepting an Award, each Participant irrevocably and unconditionally waives any objection to the laying of venue of any litigation arising out of Plan or Award hereunder in the courts of the State of Delaware or the United States of America, in each case located in the State of Delaware, and further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such litigation brought in any such court has been brought in an inconvenient forum. By accepting an Award, each Participant irrevocably and unconditionally waives, to the fullest extent permitted by applicable law, any and all rights to trial by jury in connection with any litigation arising out of or relating to the Plan or any Award hereunder.

(o) **Restrictions on Shares; Claw-Back Provisions.** Awards and shares of Common Stock acquired in respect of Awards shall be subject to such terms and conditions as the Administrator shall determine, including, without limitation, restrictions on the transferability of shares of Common Stock, the right of the Company to repurchase shares of Common Stock, the right of the Company to require that shares of Common Stock be transferred in the event of certain transactions, tag-along rights, bring-along rights, redemption and co-sale rights and voting requirements. Such terms and conditions may be additional to those contained in the Plan and may, as determined by the Administrator, be contained in the applicable Award Agreement or in an exercise notice, stockholders’ agreement or in such other agreement as the Administrator shall determine, in each case in a form determined by the
Administrator. The issuance of such shares of Common Stock shall be conditioned on the Participant’s consent to such terms and conditions and the Participant’s entering into such agreement or agreements. All Awards (including any proceeds, gains or other economic benefit actually or constructively received by Participant upon any receipt or exercise of any Award or upon the receipt or resale of any shares of Common Stock underlying the Award) shall be subject to the provisions of any claw-back policy implemented by the Company, including, without limitation, any claw-back policy adopted to comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder, to the extent set forth in such claw-back policy and/or in the applicable Award Agreement. A Participant shall, as a condition to receiving an Award, agree to execute such further instruments and to take such further action as the Company requests to carry out the purposes and intent of the Plan and any Award, including, without limitation, restrictions on the transferability of shares of Common Stock, the right of the Company to repurchase shares of Common Stock, the right of the Company to require that shares of Common Stock be transferred in the event of certain transactions, tag-along rights, bring-along rights, redemption and co-sale rights and voting requirements in accordance with Section 10(o) of the Plan.

(p) **Titles and Headings.** The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control.

(q) **Conformity to Securities Laws.** Participant acknowledges that the Plan is intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan and all Awards granted hereunder shall be administered only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by Applicable Laws, the Plan and all Award Agreements shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

11. **Definitions.** As used in the Plan, the following words and phrases shall have the following meanings:

(a) “**Administrator**” means the Board or a Committee to the extent that the Board’s powers or authority under the Plan have been delegated to such Committee.

(b) “**Applicable Laws**” means the requirements relating to the administration of equity incentive plans under U.S. federal and state securities, tax and other applicable laws, rules and regulations, the applicable rules of any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws and rules of any foreign country or other jurisdiction where Awards are granted or issued under the Plan.

(c) “**Award**” means, individually or collectively, a grant under the Plan of Options, Restricted Stock, Restricted Stock Units or Other Stock-Based Awards.

(d) “**Award Agreement**” means a written agreement evidencing an Award, which agreements may be in electronic medium and shall contain such terms and conditions with respect to an Award as the Administrator shall determine, consistent with and subject to the terms and conditions of the Plan.

(e) “**Board**” means the Board of Directors of the Company.
(f) “Cause,” with respect to a Participant, means “Cause” (or any term of similar effect) as defined in such Participant’s employment agreement with the Company if such an agreement exists and contains a definition of Cause (or term of similar effect), or, if no such agreement exists or such agreement does not contain a definition of Cause (or term of similar effect), then Cause shall include, but not be limited to: (i) the Participant’s unauthorized use or disclosure of confidential information or trade secrets of the Company or any material breach of a written agreement between the Participant and the Company, including without limitation a material breach of any employment, confidentiality, non-compete, non-solicit or similar agreement; (ii) the Participant’s commission of, indictment for or the entry of a plea of guilty or *nolo contendere* by the Participant to, a felony under the laws of the United States or any state thereof or any crime involving dishonesty or moral turpitude (or any similar crime in any jurisdiction outside the United States); (iii) the Participant’s gross negligence or willful misconduct or the Participant’s willful or repeated failure or refusal to substantially perform assigned duties; (iv) any act of fraud, embezzlement, material misappropriation or dishonesty committed by the Participant against the Company; or (v) any acts, omissions or statements by a Participant which the Company reasonably determines to be materially detrimental or damaging to the reputation, operations, prospects or business relations of the Company.

(g) “Change in Control” means (i) a merger or consolidation of the Company with or into any other corporation or other entity or person, (ii) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (iii) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities of the successor corporation or its parent immediately after such transaction; provided that the following events shall not constitute a “Change in Control”: (A) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (B) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (C) an initial public offering of any of the Company’s securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (D) a reincorporation of the Company solely to change its jurisdiction; or (E) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held the Company’s securities immediately before such transaction. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any Award that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event for such Award, to the extent required by Section 409A.


(i) “Committee” means one or more committees or subcommittees of the Board, which may be comprised of one or more directors and/or executive officers of the Company, in either case, to the extent permitted in accordance with Applicable Laws.

(j) “Common Stock” means the common stock of the Company.
(k) “Company” means Icosavax, Inc., a Delaware corporation, or any successor thereto. Except where the context otherwise requires, the term “Company” includes any of the Company’s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a significant interest, as determined by the Administrator.

(l) “Consultant” means any person, including any advisor, engaged by the Company or a parent or subsidiary of the Company to render services to such entity.

(m) “Designated Beneficiary” means the beneficiary or beneficiaries designated, in a manner determined by the Administrator, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant’s death or incapacity. In the absence of an effective designation by a Participant, “Designated Beneficiary” shall mean the Participant’s estate.

(n) “Director” means a member of the Board.

(o) “Disability” means a permanent and total disability within the meaning of Section 22(e)(3) of the Code, as it may be amended from time to time.

(p) “Dividend Equivalents” means a right granted to a Participant pursuant to Section 6(d)(3) hereof to receive the equivalent value (in cash or shares of Common Stock) of dividends paid on shares of Common Stock.

(q) “Employee” means any person, including officers and Directors, employed by the Company (within the meaning of Section 3401(c) of the Code) or any parent or subsidiary of the Company.

(r) “Equity Restructuring” means, as determined by the Administrator, a non-reciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off or recapitalization through a large, nonrecurring cash dividend, that affects the shares of Common Stock (or other securities of the Company) or the share price of Common Stock (or other securities of the Company) and causes a change in the per share value of the Common Stock underlying outstanding Awards.


(t) “Fair Market Value” means, as of any date, the value of Stock determined as follows: (i) if the Common Stock is listed on any established stock exchange, its Fair Market Value shall be the closing sales price for such Common Stock as quoted on such exchange for such date, or if no sale occurred on such date, the first market trading day immediately prior to such date during which a sale occurred, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; (ii) if the Common Stock is not traded on a stock exchange but is quoted on a national market or other quotation system, the last sales price on such date, or if no sales occurred on such date, then on the date immediately prior to such date on which sales prices are reported, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or (iii) in the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined by the Administrator.

(u) “Incentive Stock Option” means an “incentive stock option” as defined in Section 422 of the Code.

(v) “Non-Qualified Stock Option” means an Option that is not intended to be or otherwise does not qualify as an Incentive Stock Option.
(w) “Option” means an option to purchase Common Stock.

(x) “Other Stock-Based Awards” means other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property.

(y) “Participant” means a Service Provider who has been granted an Award under the Plan.

(z) “Plan” means this 2017 Equity Incentive Plan.

(aa) “Publicly Listed Company” means that the Company or its successor (i) is required to file periodic reports pursuant to Section 12 of the Exchange Act and (ii) the Common Stock is listed on one or more National Securities Exchanges (within the meaning of the Exchange Act) or is quoted on NASDAQ or a successor quotation system.

(bb) “Restricted Stock” means Common Stock awarded to a Participant pursuant to Section 6 hereof that is subject to certain vesting conditions and other restrictions.

(cc) “Restricted Stock Unit” means an unfunded, unsecured right to receive, on the applicable settlement date, one share of Common Stock or an amount in cash or other consideration determined by the Administrator equal to the value thereof as of such payment date, which right may be subject to certain vesting conditions and other restrictions.

(dd) “Section 409A” means Section 409A of the Code and all regulations, guidance, compliance programs and other interpretative authority thereunder.

(ee) “Securities Act” means the Securities Act of 1933, as amended from time to time.

(ff) “Service Provider” means an Employee, Consultant or Director.

(gg) “Termination of Service” means the date the Participant ceases to be a Service Provider.
ICOSAVAX, INC.

2017 EQUITY INCENTIVE PLAN

CALIFORNIA SUPPLEMENT

The Administrator has adopted this supplement for purposes of satisfying the requirements of Section 25102(o) of the California Corporations Code and the regulations issued thereunder ("Section 25102(o)"). Notwithstanding anything to the contrary contained in the Plan and except as otherwise determined by the Administrator, the provisions set forth in this supplement shall apply to all Awards granted under the Plan to a Participant who is a resident of the State of California on the date of grant (a "California Participant") and which are intended to be exempt from registration in California pursuant to Section 25102(o). This supplement shall not apply to Awards granted to California Participants or after the date on which the Company becomes a Publicly Listed Company. Definitions in the Plan are applicable to this supplement.

1. Limitation on Securities Issuable under the Plan. The amount of securities issued pursuant to the Plan shall not exceed the amounts permitted under section 260.140.45 of the California Code of Regulations to the extent applicable.

2. Additional Limitations On Options.

(a) Maximum Duration of Options. No Options granted to California Participants will be granted for a term in excess of 10 years.

(b) Minimum Exercise Period Following Termination. Unless a California Participant’s Service Provider relationship is terminated for Cause, in the event of termination of such Participant’s Service Provider relationship, to the extent required by Applicable Laws, he or she shall have the right to exercise an Option, to the extent that he or she was otherwise entitled to exercise such Option on the date employment terminated, as follows: (i) at least six months from the date of termination, if termination was caused by such Participant’s death or Disability and (ii) at least 30 days from the date of termination, if termination was caused other than by such Participant’s death or Disability.

3. Additional Limitations For Restricted Stock Awards, Restricted Stock Units and Other Stock-Based Awards. The terms of all Awards granted to California Participants shall comply, to the extent applicable, with Section 260.140.41 and Section 260.140.42 of the California Code of Regulations.

4. Adjustments. The Administrator will make such adjustments to an Award held by a California Participant as may be required by Section 260.140.41 or Section 260.140.42 of the California Code of Regulations.

5. Additional Requirement To Provide Information To California Participants. To the extent required by Section 260.140.46 of the California Code of Regulations, the Company shall provide to each California Participant and to each California Participant who acquires Common Stock pursuant to the Plan, not less frequently than annually, copies of annual financial statements (which need not be audited). The Company shall not be required to provide such statements to key persons whose duties in connection with the Company assure their access to equivalent information. In addition, this information requirement shall not apply to the Plan to the extent that it complies with all conditions of Rule 701 of the Securities Act ("Rule 701") as determined by the Administrator; provided that for purposes of
determining such compliance, any registered domestic partner shall be considered a “family member” as that term is defined in Rule 701.

6. **Stockholder Approval; Additional Limitations On Timing Of Awards.** The Plan will be submitted for the approval of the Company’s stockholders within twelve (12) months after the date of the Board’s adoption of the Plan. Awards may be granted or awarded prior to such stockholder approval; provided that no Award granted to a California Participant shall become exercisable, vested or realizable, as applicable to such Award, unless the Plan has been approved by the Company’s stockholders within twelve months before or after the date the Plan was adopted by the Administrator; and provided, further, that if such approval has not been obtained at the end of said twelve-month period, all Awards previously granted or awarded under the Plan to California Participants shall thereupon be canceled and become null and void.

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AMENDMENT NO. 1
TO THE
ICOSAVAX, INC. 2017 EQUITY INCENTIVE PLAN

THIS AMENDMENT NO. 1 TO THE ICOSAVAX, INC. 2017 EQUITY INCENTIVE PLAN (this “Amendment”), dated as of August 15, 2019, is made and adopted by ICOSAVAX, INC., a Delaware corporation (the “Company”). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Plan (as defined below).

RECITALS

WHEREAS, the Company has adopted the Icosavax, Inc. 2017 Equity Incentive Plan (the “Plan”);

WHEREAS, the Company desires to amend the Plan as set forth below;

WHEREAS, pursuant to Section 10(d) of the Plan, the Plan may be amended by the Board of Directors of the Company; and

WHEREAS, the Board of Directors of the Company has approved this Amendment pursuant to resolutions adopted on August 15, 2019, and the stockholders of the Company have approved this Amendment pursuant to resolutions adopted on August 15, 2019.

NOW, THEREFORE, in consideration of the foregoing, the Company hereby amends the Plan as follows:

1. The first sentence of Section 4 of the Plan is hereby amended to read as follows:

   “Subject to adjustment under Section 8 hereof, Awards may be made under the Plan covering up to 6,996,898 shares of Common Stock.”

2. This Amendment shall be and is hereby incorporated in and forms a part of the Plan. All other terms and provisions of the Plan shall remain unchanged except as specifically modified herein. The Plan, as amended by this Amendment, is hereby ratified and confirmed.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]
I hereby certify that the foregoing Amendment was duly adopted by the Board of Directors of Icosavax, Inc. on August 15, 2019, and duly approved by the stockholders of Icosavax, Inc. on August 15, 2019.

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: President and Chief Executive Officer

[Signature Page – Amendment No. 1 to the 2017 Equity Incentive Plan]
AMENDMENT NO. 2
TO THE
ICOSAVAX, INC. 2017 EQUITY INCENTIVE PLAN

THIS AMENDMENT NO. 2 TO THE ICOSAVAX, INC. 2017 EQUITY INCENTIVE PLAN (this “Amendment”), dated as of January 29, 2021, is made and adopted by ICOSAVAX, INC., a Delaware corporation (the “Company”). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Plan (as defined below).

RECITALS

WHEREAS, the Company has adopted the Icosavax, Inc. 2017 Equity Incentive Plan (the “Plan”);

WHEREAS, the Company desires to amend the Plan as set forth below;

WHEREAS, pursuant to Section 10(d) of the Plan, the Plan may be amended by the Board of Directors of the Company; and

WHEREAS, the Board of Directors of the Company has approved this Amendment pursuant to resolutions adopted on January 29, 2021 and the stockholders of the Company have approved this Amendment pursuant to resolutions adopted on January 29, 2021.

NOW, THEREFORE, in consideration of the foregoing, the Company hereby amends the Plan as follows:

1. The first sentence of Section 4 of the Plan is hereby amended to read as follows:

   “Subject to adjustment under Section 8 hereof, Awards may be made under the Plan covering up to 13,211,146 shares of Common Stock.”

2. This Amendment shall be and is hereby incorporated in and forms a part of the Plan. All other terms and provisions of the Plan shall remain unchanged except as specifically modified herein. The Plan, as amended by this Amendment, is hereby ratified and confirmed.
I hereby certify that the foregoing Amendment was duly adopted by the Board of Directors of Icosavax, Inc. on January 29, 2021, and duly approved by the stockholders of Icosavax, Inc. on January 29, 2021.

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: President and Chief Executive Officer

[Signature Page – Amendment No. 2 to the 2017 Equity Incentive Plan]
THIS AMENDMENT NO. 3 TO THE ICOSAVAX, INC. 2017 EQUITY INCENTIVE PLAN (this “Amendment”), dated as of March 19, 2021, is made and adopted by ICOSAVAX, INC., a Delaware corporation (the “Company”). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Plan (as defined below).

RECITALS

WHEREAS, the Company has adopted the Icosavax, Inc. 2017 Equity Incentive Plan (the “Plan”);

WHEREAS, the Company desires to amend the Plan as set forth below;

WHEREAS, pursuant to Section 10(d) of the Plan, the Plan may be amended by the Board of Directors of the Company; and

WHEREAS, the Board of Directors of the Company has approved this Amendment pursuant to resolutions adopted on March 19, 2021, and the stockholders of the Company have approved this Amendment pursuant to resolutions adopted on March 19, 2021.

NOW, THEREFORE, in consideration of the foregoing, the Company hereby amends the Plan as follows:

1. The first sentence of Section 4 of the Plan is hereby amended to read as follows:
   “Subject to adjustment under Section 8 hereof, Awards may be made under the Plan covering up to 29,631,863 shares of Common Stock.”

2. This Amendment shall be and is hereby incorporated in and forms a part of the Plan. All other terms and provisions of the Plan shall remain unchanged except as specifically modified herein. The Plan, as amended by this Amendment, is hereby ratified and confirmed.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]
I hereby certify that the foregoing Amendment was duly adopted by the Board of Directors of Icosavax, Inc. on March 19, 2021, and duly approved by the stockholders of Icosavax, Inc. on March 19, 2021.

By: /s/ Adam K. Simpson

Name: Adam K. Simpson
Title: President and Chief Executive Officer

[Signature Page – Amendment No. 3 to the 2017 Equity Incentive Plan]
ICOSAVAX, INC.

2017 EQUITY INCENTIVE PLAN

STOCK OPTION GRANT NOTICE AND
STOCK OPTION AGREEMENT

Icosavax, Inc. (the “Company”), pursuant to its 2017 Equity Incentive Plan (as amended from time to time, the “Plan”), hereby grants to Participant an Option to purchase the number of shares of the Company’s Common Stock (referred to herein as “Shares”) set forth below. This Option is subject to all of the terms and conditions as set forth herein and in the Stock Option Agreement attached hereto as Exhibit A (the “Agreement”) and the Plan, each of which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Stock Option Grant Notice (“Grant Notice”) and the Agreement.

Participant: [Insert Participant Name]
Grant Date: [Insert Grant Date]
Vesting Commencement Date: [Insert Vesting Commencement Date]
Exercise Price per Share: $[Insert Exercise Price Per Share]
Total Exercise Price: $[Insert Aggregate Exercise Price on Grant Date]
Total Number of Shares Subject to Option: [Insert Number of Shares]
Expiration Date: [Insert Tenth Anniversary of Grant Date]
Type of Option: ☐ Incentive Stock Option ☐ Non-Qualified Stock Option
Vesting Schedule: [25% of the total number of Shares subject to the Option shall vest one year after the Vesting Commencement Date, and 1/48th of the total number of Shares subject to the Option shall vest on the last day of each one-month period of Participant’s service as a Service Provider thereafter, so that all of the Shares subject to the Option shall be vested on the 4th anniversary of the Vesting Commencement Date.]

By his or her signature and the Company’s signature below, Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. Participant has reviewed the Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Agreement and the Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator of the Plan upon any questions arising under the Plan or the Agreement.

ICOSAVAX, INC.
By: ____________________________
Print Name: ____________________________
Title: ____________________________

PARTICIPANT
By: ____________________________
Print Name: ____________________________
State of Residence: ____________________________
EXHIBIT A

TO STOCK OPTION GRANT NOTICE

STOCK OPTION AGREEMENT

Pursuant to the Grant Notice to which this Agreement is attached, the Company has granted to Participant an Option under the Plan to purchase the number of Shares indicated in the Grant Notice.

1. **Grant of Option.** In consideration of Participant’s past and/or continued employment with or service to the Company or a parent or subsidiary of the Company and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice, the Company irrevocably grants to Participant an Option to purchase any part or all of an aggregate of the number of Shares set forth in the Grant Notice at the Exercise Price per Share set forth in the Grant Notice, upon the terms and conditions set forth in the Plan and this Agreement. Unless designated as a Non-Qualified Stock Option in the Grant Notice, the Option shall be an Incentive Stock Option to the maximum extent permitted by law.

2. **Vesting.** The Option shall become vested and exercisable in such amounts and at such times as are set forth in the vesting schedule in the Grant Notice (the “Vesting Schedule”), except that any Share as to which the Option would be fractionally vested will be accumulated and will vest and become exercisable only when a whole Share has accumulated. The installments provided for in the vesting schedule are cumulative. Unless otherwise determined by the Administrator, any portion of the Option that has not become vested and exercisable on or prior to the date Participant incurs a Termination of Service shall be forfeited on the date of Participant’s Termination of Service and shall not thereafter become vested, except as may be otherwise provided by the Administrator or as set forth in another written agreement between the Company and Participant.

3. **Exercise.**
   
   (a) **Duration of Exercisability.** Any vested portion of the Option may be exercised in whole or in part at any time prior to the time when the Option or portion thereof becomes unexercisable under Section 4.
   
   (b) **Person Eligible to Exercise.** During the lifetime of Participant, only Participant may exercise the Option or any portion thereof. After the death of Participant, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 4, be exercised by Participant’s personal representative or by any person empowered to do so under the deceased Participant’s will or under the then Applicable Laws of descent and distribution.
   
   (c) **Manner of Exercise.** The Option, or any exercisable portion thereof, may be exercised solely by delivery to the Secretary of the Company or the Secretary’s office, or such other place as may be determined by the Administrator, of all of the following prior to the time when the Option or such portion thereof becomes unexercisable under Section 4:
   
   (i) An exercise notice in substantially the form attached as Exhibit B to the Grant Notice (or such other form as is prescribed by the Administrator, which may be an electronic form) (the “Exercise Notice”) signed by Participant or any other person then entitled to exercise the Option or portion thereof, stating that the Option or portion thereof is thereby exercised, such Exercise Notice complying with all applicable rules established by the Administrator; and

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Subject to Section 5(f) of the Plan, full payment for the Shares with respect to which the Option or portion thereof is exercised by:

(A) Cash, wire transfer of immediately available funds or check, payable to the order of the Company; or

(B) With the consent of the Administrator, surrendering shares of Common Stock then issuable upon exercise of the Option valued at their Fair Market Value on the date of exercise; or

(C) If the Company is a Publicly Listed Company, unless the Administrator otherwise determines, through the delivery of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to pay the exercise price, or (B) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to pay the exercise price, provided in either case, that such amount is paid to the Company at such time as may be required by the Administrator; or

(D) With the consent of the Administrator, any other form of payment permitted under Section 5(f) of the Plan; or

(E) Any combination of the above permitted forms of payment; and

(iii) Subject to Section 9(e) of the Plan, full payment for any applicable withholding taxes in cash, by wire transfer of immediately available funds or by check or in any form of consideration permitted by the Administrator for the payment of the exercise price pursuant to Section 3(c)(ii) above or pursuant to Section 3(d) below; and

(iv) In the event the Option or portion thereof shall be exercised pursuant to Section 3.1 by any person or persons other than Participant, appropriate proof of the right of such person or persons to exercise the Option.

(d) **Tax Withholding.** The Company shall have the authority and the right to deduct or withhold, or require Participant to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including Participant’s employment tax obligation) required by Applicable Law to be withheld with respect to any taxable event concerning Participant arising as a result of the Option or otherwise under this Agreement, including, without limitation, the authority to deduct such amounts from other compensation payable to Participant by the Company.

(e) **Fractional Shares.** The Option may only be exercised for whole shares of Common Stock. Any fractional Shares shall be rounded down to the nearest whole share.

(f) **Special Tax Consequences.** If the Option is intended to be an Incentive Stock Option, Participant acknowledges that, to the extent that the aggregate fair market value (determined as of the time the Option is granted) of all Shares with respect to which Incentive Stock Options, including, without limitation, the Option, are first exercisable for the first time by Participant in any calendar year exceeds $100,000 (or such other limitation as imposed by Section 422(d) of the Code), the Option and such other options (or the applicable portion thereof) shall be treated as not qualifying under Section A-2.
422 of the Code but rather shall be considered Non-Qualified Stock Options. Participant further acknowledges that the rule set forth in the preceding sentence shall be applied by taking Options and other “incentive stock options” into account in the order in which they were granted.

4. **Expiration of Option.** The Option may not be exercised to any extent by anyone after the first to occur of the following events:

   (a) The Expiration Date set forth in the Grant Notice;

   (b) The expiration of three months following the date of Participant’s Termination of Service, unless such Termination of Service occurs by reason of Participant’s death or Disability or Participant’s discharge by the Company for Cause;

   (c) The expiration of one year following the date of Participant’s Termination of Service by reason of Participant’s death or Disability;

   (d) The date of Participant’s Termination of Service as a result of Participant’s discharge by the Company for Cause; or

   (e) With respect to any unvested portion of the Option, the date that is thirty days following Participant’s Termination of Service for any reason other than as a result of Participant’s discharge by the Company for Cause, or such shorter period as may be determined by the Administrator.

Participant acknowledges that an Incentive Stock Option exercised more than three months after Participant’s termination of status as an Employee, other than by reason of death or Disability, will be taxed as a Non-Qualified Stock Option.

5. **Transferability.** The Option shall not be sold, assigned, transferred, pledged or otherwise encumbered by Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the life of the Participant, the Option shall be exercisable only by the Participant.

6. **Restrictive Legends and Stop-Transfer Orders.**

   (a) **Legends.** Participant understands and agrees that the Company shall cause any certificates issued evidencing the Shares to have the legends set forth below or legends substantially equivalent thereto, together with any other legends that may be required by Applicable Laws:

   THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED ("ACT"), NOR HAVE THEY BEEN REGISTERED OR QUALIFIED UNDER THE SECURITIES LAWS OF ANY STATE. NO TRANSFER OF SUCH SECURITIES WILL BE PERMITTED UNLESS A REGISTRATION STATEMENT UNDER THE ACT IS IN EFFECT AS TO SUCH TRANSFER, THE TRANSFER IS MADE IN ACCORDANCE WITH RULE 144 UNDER THE ACT, OR IN THE OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY) REGISTRATION UNDER THE ACT IS UNNECESSARY IN ORDER FOR SUCH TRANSFER TO COMPLY WITH THE ACT AND WITH APPLICABLE STATE SECURITIES LAWS.
THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY. SUCH TRANSFER RESTRICTIONS ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop Transfer Orders. Participant agrees that, in order to ensure compliance with the restrictions referred to in the Plan and this Agreement, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Impermissible Transfers Void. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred. Any transfer or attempted transfer of the Option or any of the Restricted Shares not in accordance with the terms of this Agreement shall be void.

7. Taxes. Participant understands that Participant may suffer adverse tax consequences as a result of Participant’s purchase or disposition of the Shares. Participant represents that Participant has consulted with any tax consultants Participant deems advisable in connection with the purchase or disposition of the Shares and that Participant is not relying on the Company for any tax advice. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Participant understands that Participant (and not the Company) shall be responsible for Participant’s tax liability that may arise as a result of the transactions contemplated by this Agreement.

8. Miscellaneous.

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan or this Agreement.

(b) Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company’s principal executive offices, and any notice to be given to Participant shall be addressed to Participant at the most-recent physical or email address for Participant listed in the Company’s personnel records. By a notice given pursuant to this Section 8(b), either party may hereafter designate a different address for notices to be given to that party. Any notice which is required to be given to Participant shall, if Participant is then deceased, be given to the person entitled to exercise his or her Option by written notice under this Section 8(b). Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

(c) Successors and Assigns. The Company may assign any of its rights under this Agreement and the Exercise Notice to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set
forth, this Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

(d) **Severability.** In the event any portion of the Plan or this Agreement or any action taken pursuant thereto shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan and this Agreement, and the Plan and this Agreement shall be construed and enforced as if the illegal or invalid provisions had not been included, and the illegal or invalid action shall be null and void.

(e) **Entire Agreement; Governing Documents.** The Plan, the Grant Notice and this Agreement (including all Exhibits thereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof. In the event of any contradiction between the Plan and this Agreement or any other written agreement between a Participant and the Company that has been approved by the Administrator, the terms of the Plan shall govern. Participant hereby agrees to execute such further instruments and to take such further action as the Company requests to carry out the purposes and intent of this Agreement and the Plan, including, without limitation, restrictions on the transferability of shares of Common Stock, the right of the Company to repurchase shares of Common Stock, the right of the Company to require that shares of Common Stock be transferred in the event of certain transactions, tag-along rights, bring-along rights, redemption and co-sale rights and voting requirements in accordance with Section 10(o) of the Plan.

(f) **Governing Law.** The provisions of the Plan and all Awards made thereunder, including the Option, shall be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding choice-of-law principles of the law of any state that would require the application of the laws of a jurisdiction other than such state.

(g) **Titles and Headings.** The titles and headings of the Sections in this Agreement are for convenience of reference only and, in the event of any conflict, the text of this Agreement, rather than such titles or headings, shall control.
Effective as of today, __________, the undersigned ("Participant") hereby elects to exercise Participant's option to purchase _________ Shares of Icosavax, Inc. (the "Company") under and pursuant to the Icosavax, Inc. 2017 Equity Incentive Plan (the "Plan") and the Stock Option Grant Notice and Stock Option Agreement dated __________, __________ (the "Agreement"). Capitalized terms used herein without definition shall have the meanings given in the Agreement.

Grant Date: ______________________

Number of Shares as to which Option is Exercised: ______________________

Exercise Price per Share: $________

Total Exercise Price: $________

Certificate to be issued in name of: ______________________

Cash Payment delivered herewith: $________ (Representing the full Exercise Price for the Shares, as well as any applicable withholding tax)

Type of Option: ☐ Incentive Stock Option ☐ Non-Qualified Stock Option

1. **Representations of Participant.** Participant acknowledges that Participant has received, read and understood the Plan and the Agreement. Participant agrees to abide by and be bound by their terms and conditions.

2. **Tax Consultation.** Participant understands that Participant may suffer adverse tax consequences as a result of Participant’s purchase or disposition of the Shares. Participant represents that Participant has consulted with any tax consultants Participant deems advisable in connection with the purchase or disposition of the Shares and that Participant is not relying on the Company for any tax advice. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Participant understands that Participant (and not the Company) shall be responsible for Participant’s tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

3. **Participant Representations.** Participant hereby makes the following certifications and representations with respect to the Shares listed above:

   (a) Participant is aware of the Company’s business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares. Participant is acquiring these Shares for investment for Participant’s own account only and not with a view to, or for resale in connection with, any “distribution” thereof within the meaning of the Securities Act.

   (b) Participant acknowledges and understands that the Shares constitute “restricted securities” under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature
of Participant’s investment intent as expressed herein. Participant understands that the Shares must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Participant further acknowledges and understands that the Company is under no obligation to register the Shares. Participant understands that the certificate evidencing the Shares will be imprinted with a legend which prohibits the transfer of the Shares unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company and any other legend required under Applicable Laws.

(c) Participant is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of “restricted securities” acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, ninety days thereafter (or such longer period as any market stand-off agreement may require) the securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144.

(d) In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the securities may be resold in certain limited circumstances subject to the provisions of Rule 144.

(e) Participant further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Participant understands that no assurances can be given that any such other registration exemption will be available in such event.

4. Further Instruments. Participant hereby agrees to execute such further instruments and to take such further action as the Company requests to carry out the purposes and intent of this Agreement and the Plan, including, without limitation, restrictions on the transferability of shares of Common Stock, the right of the Company to repurchase shares of Common Stock, the right of the Company to require that shares of Common Stock be transferred in the event of certain transactions, tag-along rights, bring-along rights, redemption and co-sale rights and voting requirements in accordance with Section 10(o) of the Plan.

5. Notices. Any notice required or permitted hereunder shall be given in accordance with the provisions set forth in Section 8(b) of the Agreement.

6. Entire Agreement. The Plan and Agreement are incorporated herein by reference. This Notice, the Plan and the Agreement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

B-2
August 15, 2019

Tadataka Yamada

Re: Icosavax, Inc. Board of Directors

Dear Tachi,

In connection with the transactions contemplated by the Series A Preferred Stock Purchase Agreement, dated as of August 15, 2019, by and among the Company and the Purchasers named therein (the “Transaction”), we are amending and restating the terms of your position on the Board of Directors (the “Board”) of Icosavax, Inc. (the “Company”) as Chairman of the Board, as previously set forth on that certain offer letter, by and between you and the Company, dated January 1, 2018 (the “Prior Letter”). Please note that this amended and restated offer letter (this “Letter”) is contingent on the closing of the Transaction (the “Closing”), and shall become effective as of the Closing (the “Effective Date”). In the event the Closing does not occur on or before December 31, 2019, this Letter shall have no force and effect and shall be null and void, and the Prior Letter shall remain in effect.

In your capacity as Chairman of the Board, you will continue to perform advisory duties customarily associated with the position, participate in regularly scheduled and special Board meetings, participate in conference calls of the Board, meet or otherwise periodically confer with Board members, committees of the Board and Company executives, and provide assistance to the Company’s executive team with occasional meetings, site visits, conference calls and advice on an as-needed basis (the “Services”).

Following the Effective Date, you will paid an annual cash fee of $100,000, paid quarterly, for your services as Chairman. Moreover, as a member of the Board, the Company will reimburse you for reasonable travel and other expenses to attend Board meetings and other Board-related functions (such as site visits).

Upon the Effective Date, you shall be eligible to receive a one-time bonus equal to (a) (i) $100,000, divided by (ii) 365, multiplied by (b) the number of days elapsed from January 1, 2018 through and including the Effective Date, which bonus shall be paid within ten (10) days following the Effective Date, subject to applicable payroll deductions and withholdings.

You will continue to serve as the Chairman of the Board until the earlier of your resignation, removal from the Board or death, or your successor as Chairman of the Board is duly appointed by the Board. You may be removed from the Board at any time in accordance with terms of the Company’s Bylaws. You will not be an employee or agent of the Company. You will not be eligible for any employee benefits. Any taxes shall be solely your responsibility.

In your capacity as a director of the Company, you will be expected not to use or disclose any confidential information, including, but not limited to, trade secrets of any current or former employer or other person or entity to whom you have an obligation of confidentiality. Rather, you will be expected to use only information that is generally known and used by persons with training and experience comparable to your own, that is common knowledge in the industry or otherwise legally in the public domain, or that is otherwise provided by the Company. You acknowledge that as a result of the Services, you will obtain confidential information and proprietary information relating to or provided by the Company and its affiliates. During and after your service with the Company, you shall not use for your benefit or disclose confidential information, proprietary information, knowledge or data relating to or provided by the Company and its affiliates; provided, however, that, except as provided under applicable law, this obligation shall not apply to information that (a) was publicly known and available in the public domain at the time of disclosure, or later becomes publicly known and available in the public domain other than through your
failure to keep such information confidential, (b) was in your possession at the time of disclosure or is provided to you by a third party, in each case without duty of confidentiality, (c) was independently developed by you without incorporating or using Company information or resources, as demonstrated by records contemporaneously maintained, or (d) is disclosed with the express consent of the Company. Any proprietary inventions or other intellectual property rights that you may develop (including, but not limited to, patents, copyrights, trademarks, trade secrets, technology, contract and licensing rights, business plans or other proprietary rights), either alone or jointly with others, during the course of performing the Services for the Company is assigned by you to the Company and you agree to execute, when requested, such additional documentation deemed necessary by the Company to assign all rights, title and interest to such inventions or property. You also represent and warrant that you have the full right and power to enter into and perform this letter agreement and there is no other existing contract or duty on your part inconsistent with the terms of this letter agreement (including, but not limited to, any conflict of interest policy). Additionally, as a reminder, as a member of the Board, you will have fiduciary duties to the Company and its members.

Notwithstanding the foregoing, pursuant to 18 U.S.C. Section 1833(b), you shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

To avoid conflicts of interest, it is expected that directors will disclose any personal interest they may have in a transaction that the Board considers or in which the Company otherwise is a party. Directors shall recuse themselves from participation in any decision in which there is a conflict between their personal interests and the interests of the Company. Any such “related party transaction” involving a director must be reviewed and approved by the Board (or a committee designated by the Board).

This Letter constitutes the entire agreement between you and the Company. This Letter supersedes any other agreements or promises made to you by anyone, whether oral or written, including, without limitation, the Prior Letter, and it may only be modified in a writing signed by a duly authorized officer of the Company. This Letter shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. We look forward to your favorable reply and to continue a productive relationship.
Sincerely,

ICOSAVAX, INC.

By: /s/ Adam K. Simpson
    Adam K. Simpson, Chief Executive Officer

ACKNOWLEDGED AND AGREED:

/s/ Tadataka Yamada
Tadataka Yamada
May 11, 2020

Adam Simpson

Re: Employment Letter Agreement

Dear Adam:

This amended and restated employment letter agreement (this “Agreement”) amends and restates that certain employment letter agreement, dated August 15, 2019 (the “Prior Agreement”), by and between the Company and you (also referred herein as “Employee” and together, the “Parties”). This Agreement sets forth the terms of your continued employment with Icosavax, Inc. (the “Company”), effective as of February 21, 2020. In consideration of the mutual promises herein contained, the Parties agree as follows:

1. Position. Employee will continue to serve in the position of Chief Executive Officer. Employee will continue to report to the Company’s Board of Directors (the “Board”), and shall be responsible for the duties customarily associated with this position and such other duties assigned by the Company. Employee will work remotely. Employee will be employed on a part-time basis and will spend seventy-five percent (75%) of Employee’s business time and efforts towards the performance of his duties for the Company. Employee will also serve as a member of the Board.

2. Base Salary and Employee Benefits.

(a) Salary. Employee’s base salary will be $375,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.

(b) Benefits. During his employment, Employee will be eligible to participate in the standard benefits plans offered to similarly situated employees by the Company from time to time, subject to plan terms and generally applicable Company policies. A full description of these benefits will be available upon request. Employee will be eligible to accrue vacation or paid time off in accordance with the Company’s policies as in effect from time to time. The Company may change compensation and benefits from time to time in its discretion.

(c) Expenses. All reasonable business expenses that are documented by Employee and incurred in the ordinary course of business will be reimbursed in accordance with the Company’s standard policies and procedures.

3. Annual Bonus. Employee will be eligible to earn an annual performance bonus of up to forty-five percent (45%) of Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels. The Annual Bonus will be based upon an assessment by the Board of Employee’s performance and the Company’s attainment of written targeted goals as set by the Board in its sole discretion. Bonus payments, if any, will be subject to applicable payroll deductions and withholdings. Following the close of each calendar year, the Board will determine whether Employee has earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and Employee must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus; except as provided in Section 5 below, no partial or prorated
bonuses will be provided. The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

4. **At-Will Employment Relationship.** Employee may terminate his employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate Employee’s employment at any time, with or without cause or advance notice. Employee’s employment at-will status can only be modified in a written agreement signed by Employee and by an officer of the Company.

5. **Severance Benefits.** If, at any time, the Company terminates Employee’s employment without Cause or Employee resigns for Good Reason (either such termination referred to as a “Qualifying Termination”), provided such termination or resignation also constitutes a Separation from Service (as defined below), then subject to Sections 7 and 8 below, Employee’s continued compliance with the terms of this Agreement (including without limitation Section 10 below) and Employee’s resignation from any and all positions Employee may hold with the Company, to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board), the Company will provide Employee with the following severance benefits (the “Severance Benefits”):

   (a) **Cash Severance.** Upon a Qualifying Termination, the Company will pay Employee, as cash severance (i) twelve (12) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date, less applicable payroll deductions and withholdings (the “Base Severance”), plus (ii) in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, an amount equal to Employee’s “target” Annual Bonus for the year in which Employee’s Qualifying Termination occurs (the “Bonus Severance,” and with the “Base Severance,” the “Severance”).

   Except in the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in installments in the form of continuation of Employee’s Base Salary payments, paid on the Company’s ordinary payroll dates, commencing on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date. The first such installment shall be for any accrued Base Salary for the sixty (60)-day period plus the period from the sixtieth (60th) day until the regular payroll date, if applicable. All salary continuation payments thereafter, if any, shall be made on the Company’s regular payroll dates.

   In the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date.

   Any Bonus Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date, but in any event no later than March 15 of the year following the year in which Employee’s Separation from Service date occurs.

   (b) **COBRA Severance.** As additional severance, in the event of Employee’s Qualifying Termination, the Company will continue to pay the cost of Employee’s health care coverage in effect at the time of Employee’s Separation from Service for twelve (12) months (the “COBRA Coverage Period”), either under the Company’s regular health plan (if permitted) or by paying Employee’s COBRA premiums (the “COBRA Severance”). The Company’s obligation to pay the COBRA Severance on Employee’s behalf will cease if Employee obtains health care coverage from another source (e.g., a new
employer or spouse’s benefit plan), unless otherwise prohibited by applicable law. Employee must notify the Company within two (2) weeks if
Employee obtains coverage from a new source. This payment of COBRA Severance by the Company would not expand or extend the maximum period
of COBRA coverage to which Employee would otherwise be entitled under applicable law. Notwithstanding the above, if the Company determines in its
sole discretion that it cannot provide the foregoing COBRA Severance without potentially violating applicable law (including, without limitation,
Section 2716 of the Public Health Service Act), or if the Company otherwise elects, in its sole discretion, the Company shall in lieu thereof provide to
Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue
Employee’s group health coverage in effect on the date of Employee’s termination (which amount shall be based on the premium for the first month of
COBRA coverage), which payments shall be made on the last day of each month regardless of whether Employee elects COBRA continuation coverage
and shall end on the earlier of (x) the date upon which Employee obtains other coverage or (y) the last day of applicable COBRA Coverage Period.

(c) Accelerated Vesting.

(i) In the event of Employee’s Qualifying Termination, then (A) with respect to Employee’s then-unvested Stock Awards granted
prior to the date of the closing of the transactions contemplated by the Series A Preferred Stock Purchase Agreement, dated as of August 15, 2019, by
and among the Company and the Purchasers named therein (the “Transaction Closing Date” and such awards, the “Existing Stock Awards”), all such
Existing Stock Awards shall be deemed vested effective immediately prior to such termination, and (B) with respect to Employee’s then-unvested Stock
Awards granted on or after the Transaction Closing Date (the “New Stock Awards”), provided such termination or resignation also constitutes a
Separation from Service, then such number of Employee’s New Stock Awards shall be deemed vested effective immediately prior to such termination as
would have vested by their terms during the twelve (12) months following Employee’s date of termination had Employee remained in the service of or
employed by the Company during such period; provided that (x) Employee complies with Sections 7 and 8 below, (y) Employee continues to comply
with the terms of this Agreement (including without limitation Section 10 below) and (z) Employee resigns from any and all positions Employee holds
with the Company, with such resignations to be effective no later than Employee’s Separation from Service date (or such other date requested or
permitted by the Board); provided, however, that Employee’s services shall not be considered to have been terminated without Cause or for Good
Reason if Employee ceases to serve as Chief Executive Officer but continues to serve as a member of the Board, in which case the foregoing
acceleration shall then be triggered upon a termination of Employee’s service as a member of the Board without Cause or for Good Reason.

(ii) In the event of a Change in Control, then 50% of Employee’s then-unvested Existing Stock Awards shall be deemed vested
effective immediately prior to such Change in Control.

(iii) In the event of Employee’s termination of employment due to death or disability, then all Employee’s then-unvested Existing
Stock Awards shall be deemed vested effective immediately prior to such termination.

The foregoing accelerated vesting provisions are hereby referred to as the “Accelerated Vesting” and are deemed to be a part of each Stock Award and to
amend and supersede any provision in any agreement or plan regarding such Stock Award, even if such Accelerated Vesting provisions are less
favorable. In the event of any conflict between the foregoing Accelerated Vesting provisions and the terms of any Stock Award, including any Existing
Stock Award, the Accelerated Vesting provisions shall apply. Notwithstanding the foregoing, the Accelerated Vesting shall be in addition to, and not in
any way in limitation of, the accelerated vesting provisions set forth in that certain Restricted Stock Purchase
Agreement dated as of December 11, 2017, between the Company and The Adam K. and Maria M. Simpson Family Trust DTD 04/27/07, as amended from time to time, pursuant to which the Founders Shares were issued to Employee. Notwithstanding the foregoing, any Stock Award granted after the Transaction Closing Date may be subject to additional accelerated vesting provisions in connection with a Change in Control, pursuant to the terms and conditions set forth in such Stock Award’s applicable award agreement.

6. Resignation Without Good Reason; Termination for Cause; Death or Disability. If, at any time, Employee resigns his employment with the Company without Good Reason, or the Company terminates Employee’s employment for Cause, or Employee’s employment with the Company terminates for any reason not entitling Employee to the Severance Benefits or Accelerated Vesting pursuant to Section 5 above, including (other than with respect to the Accelerated Vesting) as a result of Employee’s death or disability, then Employee will receive his Base Salary accrued through his last day of employment. Under these circumstances, Employee will not be entitled to any other form of compensation from the Company, including any Severance Benefits or Accelerated Vesting, other than Employee’s rights to the vested portion of Employee’s Stock Awards and any other rights to which Employee is entitled under the Company’s benefit programs. In addition, Employee shall resign from any and all positions Employee holds with the Company, with such resignations to be effective no later than the date of Employee’s employment termination (or such other date requested or permitted by the Board).

7. Conditions to Receipt of Severance Benefits and Accelerated Vesting. Prior to and as a condition to Employee’s, or Employee’s estate or legal representative, receipt of the Severance Benefits or Accelerated Vesting described above, Employee, or Employee’s estate or legal representative, as applicable, shall timely execute and deliver to the Company a release of claims in favor of and in a form acceptable to the Company (the “Release”) and allow the Release to become effective according to its terms (by not invoking any legal right to revoke it) within sixty (60) days following Employee’s Separation from Service date.

8. Compliance with Section 409A. It is intended that the Severance Benefits and Accelerated Vesting set forth in this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code (Section 409A, together with any state law of similar effect, “Section 409A”) provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations 1.409A-2(b)(2)(iii)), Employee’s right to receive any installment payments under this Agreement (whether severance payments, reimbursements or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment. Notwithstanding any provision to the contrary in this Agreement, if the Company (or, if applicable, the successor entity thereto) determines that the Severance Benefits or Accelerated Vesting constitute “deferred compensation” under Section 409A and Employee is, on the date of Employee’s Separation from Service, a “specified employee” of the Company or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of adverse personal tax consequences under Section 409A, the timing of the Severance Benefits and Accelerated Vesting shall be delayed until the earliest of: (a) the date that is six (6) months and one (1) day after Employee’s Separation from Service date, (b) the date of Employee’s death, or (c) such earlier date as permitted under Section 409A without the imposition of adverse taxation. Upon the first business day following the expiration of such applicable Code Section 409A(a)(2)(B)(i) period, all payments or benefits deferred pursuant to this Section 8 shall be paid in a lump sum or provided in full by the Company (or the successor entity thereto, as applicable), and any remaining payments due shall be paid as otherwise provided herein. No interest shall be due on any amounts so deferred. The Severance Benefits and Accelerated Vesting are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to
avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be interpreted accordingly. Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be paid on or before the last day of Employee’s taxable year following the taxable year in which Employee incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Employee, and Employee’s right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

9. **Withholding Taxes.** All forms of compensation referred to in this Agreement will be subject to reduction to reflect applicable withholding and payroll taxes.

10. **Compliance with Confidential Information and Inventions Agreement and Company Policies.** In the performance of services for the Company, Employee will be expected to abide by Company rules and policies. Employee and the Company have entered into a Confidential Information and Inventions Assignment Agreement attached hereto as Exhibit A which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. Employee agrees to perform each and every obligation of Employee therein contained. Any references in your Confidential Information and Inventions Assignment Agreement to the Prior Agreement shall be deemed to be amended to refer to this Agreement. Notwithstanding the foregoing or in the Confidential Information and Inventions Assignment Agreement, pursuant to 18 U.S.C. Section 1833(b), Employee shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

11. **Protection of Third Party Information.** In Employee’s work for the Company, Employee will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom Employee has an obligation of confidentiality. Rather, Employee will be expected to use only that information which is generally known and used by persons with training and experience comparable to his own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. Employee agrees that Employee will not bring onto Company premises any unpublished documents or property belonging to any former employer or other person to whom Employee has an obligation of confidentiality. Employee hereby represents that he has disclosed to the Company any contract he has signed that may restrict his activities on behalf of the Company.

12. **Return of Company Property.** Upon the termination of Employee’s employment with the Company for any reason, as a precondition to the receipt of the Accelerated Vesting, within five (5) days after Employee’s Separation from Service date (or earlier if requested by the Company), Employee will return to the Company all Company documents (and all copies thereof) and other Company property within their possession, custody or control, including but not limited to Company files, notes, financial and operational information, customer lists and contact information, investor and finance source lists and contract information, product information, research and development information, drawings, records, plans, forecasts, reports, payroll information, spreadsheets, studies, analyses, compilations of data, proposals, agreements, sales and marketing information, personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including but not limited to computers, facsimile machines, mobile telephones, tablets, handheld devices and servers), credit cards, entry cards, identification badges and keys, and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in
13. **Exclusive Services.** Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder and shall devote such portion of his productive time and efforts to the performance of such duties as is required under this Agreement. Subject to the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to personal and family investments or serving on community and civic boards, participating in industry associations, or engaging in other business or public activities (including providing consulting services to other entities, being employed by other entities and/or serving on the board of other entities), provided such activities do not interfere with the duties to the Company, as determined in good faith by the Board. Notwithstanding the foregoing, during Employee’s employment by the Company, except on behalf of the Company, Employee will not directly or indirectly serve as an officer, director, stockholder, employee, partner, proprietor, investor, joint venturer, associate, representative or consultant of any other person, corporation, firm, partnership or other entity whatsoever known by Employee to compete with the Company (or is planning or preparing to compete with the Company) in the fields of respiratory syncytial virus and cytomegalovirus or any other vaccine indications then in development by the Company, anywhere in the world; provided, however, that Employee may purchase or otherwise acquire up to (but not more than) one percent (1%) of any class of securities of any enterprise (but without participating in the activities of such enterprise) if such securities are listed on any national or regional securities exchange. If the Board determines Employee is in breach of this Section 13, and provided such breach is not cured within thirty (30) days of written notification of such breach from the Board, then the Company may terminate Employee’s employment for Cause.

14. **Dispute Resolution.** To ensure the rapid and economical resolution of disputes that may arise in connection with Employee’s service or employment with the Company, Employee and the Company agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, Employee’s service or employment with the Company, or the termination of such service or employment, shall be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in the city of the Company’s then principal place of business in the United States conducted by JAMS or its successor, under the then applicable JAMS Arbitration Rules and Procedures for Employment Disputes (available at http://www.jamsadr.com/rules-employment-arbitration/). Employee acknowledges that by agreeing to this arbitration procedure, he waives the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. Employee will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written statement signed by the arbitrator regarding the disposition of each claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator’s essential findings and conclusions on which the award is based. The arbitrator shall be authorized to award all relief that Employee or the Company would be entitled to seek in a court of law. The Company shall pay all JAMS arbitration fees in excess of the administrative fees that Employee would be required to pay if the dispute were decided in a court of law. The parties agree this arbitration agreement does not extend to claims for workers’ compensation or unemployment benefits, or any other claims, that Employee cannot, as a matter of applicable law, be required to arbitrate, nor does it preclude Employee from initiating a complaint before the Equal Employment Opportunity Commission or any other governmental agency, but if any such complaint is not resolved before the agency any action for money damages shall be submitted to arbitration pursuant to this paragraph. Nothing in this Agreement is intended to prevent any party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration.
15. **Miscellaneous.** This Agreement, together with the Confidential Information and Inventions Assignment Agreement and the other agreements referenced herein, forms the complete and exclusive statement governing Employee’s employment with the Company. It supersedes any other agreements or promises made to Employee by anyone, whether oral or written, including, without limitation, the Prior Agreement. Changes in the terms of Employee’s employment, other than those changes expressly reserved to the Company’s or the Board’s discretion in this Agreement, require a written modification approved by the Company and signed by a duly authorized officer of the Company. This Agreement will bind the heirs, personal representatives, successors and assigns of Employee and the Company, and inure to the benefit of Employee and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law. This Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. Any ambiguity in this Agreement shall not be construed against any party as the drafter. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and facsimile and electronic signatures shall be equivalent to original signatures.

16. **Definitions.** For purposes of this Agreement, the following terms shall have the following meanings:

(a) “**Cause**” shall mean the occurrence of any of the following events, in each instance that has a material adverse impact on the Company or any successor or affiliate thereof as determined by the Board in its reasonable discretion: (a) Employee’s conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) Employee’s commission of, or participation in, a fraud or act of dishonesty or other illegal act against the Company; (c) Employee’s intentional, material violation of any contract or agreement between Employee and the Company or of any statutory duty owed to the Company; (d) Employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (e) gross misconduct; provided, that, with respect to (c) and (d) above, “**Cause**” will be triggered after Employee has received written notification of such failure from the Board, which, if curable, remains uncured after thirty (30) days written notice from the Board.

(b) “**Change in Control**” shall mean (a) a merger or consolidation of the Company with or into any other corporation or other entity or person, (b) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (c) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to such transaction acquires or holds capital stock of the Company representing a majority of the Company’s outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “Change in Control”: (i) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (ii) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (iii) an initial public offering of any of the Company’s securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (iv) a reincorporation of the Company solely to change its jurisdiction; (v) a transaction undertaken for the primary purpose of creating a holding
company that will be owned in substantially the same proportion by the persons who held the Company’s securities immediately before such transaction; or (vi) a Qualified Funding Event. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any payment or benefit that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event, to the extent required by Section 409A.

(c) “Founders Shares” shall mean those shares issued to Employee pursuant to that certain Restricted Stock Purchase Agreement dated as of December 11, 2017, between the Company and The Adam K. and Maria M. Simpson Family Trust DTD 04/27/07, as amended from time to time.

(d) “Good Reason” shall mean any of the following actions taken without Cause by the Company or a successor corporation or entity without Employee’s consent: (a) material reduction of Employee’s base compensation, other than to the extent the base compensation of all of the executive officers of the Company are concurrently reduced by the same or greater percentage; (b) material reduction in Employee’s authority, duties or responsibilities, provided, however, that a change in job position (including a change in title) shall not be deemed a “material reduction” unless Employee’s new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities; or (c) relocation of the principal place at which Employee is required to provide services to the Company or Employee’s principal place of employment that results in an increase in Employee’s one-way driving distance by more than fifty (50) miles from Employee’s then current principal place of business or residence, as applicable. In order to resign for Good Reason, Employee must provide written notice of the event giving rise to Good Reason to the Company within ninety (90) days after the condition arises, allow the Company thirty (30) days to cure such condition, and if the Company fails to cure the condition within such period, then Employee’s resignation from all positions Employee then holds with the Company must be effective not later than ninety (90) days after the end of the Company’s cure period.

(e) “Qualified Funding Event” shall mean any of the following: (a) an equity financing with gross proceeds to the Company of at least $5,000,000.00 in which investors purchase any series of the Company’s Preferred Stock other than its Series 1 Preferred Stock; or (b) any option, phased acquisition, non-dilutive financing or similar transaction with gross proceeds to the Company of at least $5,000,000.00 granting a person or entity, or group of related persons or entities, the right to ultimately proceed with a Sale Transaction.

(f) “Sale Transaction” shall mean any of the following transactions: (a) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the shares of capital stock of the Company immediately prior to such consolidation, merger or reorganization, continue to represent a majority of the voting power of the surviving entity (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; (b) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company’s voting power is transferred, excluding any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof; or (c) any sale, lease, exclusive license or other disposition of the intellectual property or assets of the Company.

(g) “Separation from Service” shall mean a “separation from service” as such term is defined in Treasury Regulation Section 1.409A-1(h).
(h) “Stock Awards” shall mean means all stock options, restricted stock and such other awards granted pursuant to the Company’s stock option and equity incentive award plans or agreements and any shares of stock issued upon exercise thereof, including the Founders Shares.

(Signature Page Follows)
Sincerely,

ICOSAVAX, INC.

By: /s/ Tadataka Yamada  
Tadataka Yamada, Chairman of the Board

ACKNOWLEDGED AND AGREED:

/s/ Adam K. Simpson  
Adam K. Simpson
AMENDMENT TO AMENDED AND RESTATED EMPLOYMENT LETTER AGREEMENT

This AMENDMENT TO AMENDED AND RESTATED EMPLOYMENT LETTER AGREEMENT (this “Amendment”) is made and entered into effective as of February 10, 2021, by and between Icosavax, Inc. (the “Company”) and Adam K. Simpson (“Employee”).

RECITALS

WHEREAS, Employee and the Company previously entered into that certain Amended and Restated Employment Letter Agreement, dated as of May 11, 2020 (the “Agreement”), pursuant to which Employee currently is employed by the Company; and

WHEREAS, the Company and Employee wish to enter into this Amendment to modify certain terms of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants and the respective undertakings of the Company and Employee set forth below, the Company and Employee agree as follows:

AGREEMENT

1. Amendment to Section 1. The penultimate sentence of Section 1 of the Agreement is hereby amended to read as follows:
   “Employee will be employed on a full-time basis.”

2. Amendment to Section 2(a). Section 2(a) of the Agreement is hereby amended to read as follows:
   “(a) Salary. Employee’s base salary will be $475,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.”

3. Amendment to Section 3. The first sentence of Section 3 of the Agreement is hereby amended to read as follows:
   “Employee will be eligible to earn an annual performance bonus of up to fifty percent (50%) of Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels.”

4. Amendment to Section 13. The first sentence of Section 13 of the Agreement is hereby amended to read as follows:
   “Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder.”
5. **Status of Agreement.** Except to the limited extent expressly amended hereby, the Agreement and its terms and conditions remain in full force and effect and unchanged by this Amendment. Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in the Agreement.

6. **Duplicate Counterparts; Facsimile.** This Amendment may be executed in duplicate counterparts, each of which shall be deemed an original; provided, however, such counterparts shall together constitute only one agreement. Facsimile signatures or signatures sent via electronic mail shall be as effective as original signatures.

[Signature page follows.]
IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date(s) set forth below.

ICOSAVAX, INC.

Dated: February 19, 2021

By: /s/ Tadataka Yamada
Name: Tadataka Yamada
Title: Chairman of the Board

EMPLOYEE

Dated: February 19, 2021

/s/ Adam K. Simpson
Adam K. Simpson

2
Douglas A. Holtzman

Re: Employment Letter Agreement

Dear Douglas:

In connection with the transactions contemplated by the Series A Preferred Stock Purchase Agreement, dated as of August 15, 2019, by and among the Company and the Purchasers named therein (the “Transaction”), we are amending and restating the terms of your position at Icosavax, Inc. (the “Company”), as previously set forth on that certain Consulting Agreement, dated January 1, 2018 (the “Prior Agreement”), by and among the Company, you and Palindrome Bioconsulting, LLC (also referred herein as “Employee” and together, the “Parties”). Please note that this employment letter agreement (this “Agreement”) is contingent on the closing of the Transaction (the “Closing”), and shall become effective as of the Closing (the “Effective Date”). In the event the Closing does not occur on or before December 31, 2019, this Agreement shall have no force and effect and shall be null and void, and the Prior Agreement shall remain in effect. In consideration of the mutual promises herein contained, the Parties agree as follows:

1. Commencement of Employment. Employee’s employment with the Company will commence automatically immediately following the Effective Date.

2. Position. Employee will serve in the position of Chief Scientific Officer. Employee will report to the Company’s Chief Executive Officer (or interim Chief Executive Officer, if applicable), and shall be responsible for the duties customarily associated with this position and such other duties assigned by the Company. Employee will work at the Company’s facility located at Seattle, Washington. Of course, the Company may change Employee’s position, duties, and work location from time to time in its discretion. Employee will be employed on a full-time basis.


   (a) Salary. Initially, Employee’s base salary will be $260,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.

   (b) Benefits. During his employment, Employee will be eligible to participate in the standard benefits plans offered to similarly situated employees by the Company from time to time, subject to plan terms and generally applicable Company policies. A full description of these benefits will be available upon request. Employee will be eligible to accrue vacation or paid time off in accordance with the Company’s policies as in effect from time to time. The Company may change compensation and benefits from time to time in its discretion.

   (c) Expenses. All reasonable business expenses that are documented by Employee and incurred in the ordinary course of business will be reimbursed in accordance with the Company’s standard policies and procedures.

4. Annual Bonus. Commencing with the calendar year in which the Effective Date occurs, Employee will be eligible to earn an annual performance bonus of up to thirty percent (30%) of
Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels. The Annual Bonus will be based upon an assessment by the Board of Directors of the Company (the “Board”) of Employee’s performance and the Company’s attainment of written targeted goals as set by the Board in its sole discretion. Bonus payments, if any, will be subject to applicable payroll deductions and withholdings. Following the close of each calendar year, the Board will determine whether Employee has earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and Employee must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus; except as provided in Section 7 below, no partial or prorated bonuses will be provided. The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

5. **Qualified Funding Event Bonus.** Upon the Effective Date, Employee shall be eligible to receive a one-time bonus equal to (a) (i) $130,000, divided by (ii) 365, multiplied by (b) the number of days elapsed from January 1, 2018 through and including the Effective Date, which bonus shall be paid to Palindrome Bioconsulting, LLC within ten (10) days following the Effective Date, less withholding taxes. In addition, Employee will receive an additional bonus in an amount equal to $102,741.93 which represents satisfaction in full of all compensation owed to Employee through the Effective Date under the Prior Agreement or otherwise, which bonus shall be paid to Palindrome Bioconsulting, LLC within ten (10) days following the Effective Date, less withholding taxes.

6. **At-Will Employment Relationship.** Employee may terminate his employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate Employee’s employment at any time, with or without cause or advance notice. Employee’s employment at-will status can only be modified in a written agreement signed by Employee and by an officer of the Company.

7. **Severance Benefits.** If, at any time, the Company terminates Employee’s employment without Cause or Employee resigns for Good Reason (either such termination referred to as a “Qualifying Termination”), provided such termination or resignation also constitutes a Separation from Service (as defined below), then subject to Sections 9 and 10 below, Employee’s continued compliance with the terms of this Agreement (including without limitation Section 12 below) and Employee’s resignation from any and all positions Employee may hold with the Company, to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board), the Company will provide Employee with the following severance benefits (the “Severance Benefits”):

   (a) **Cash Severance.** Upon a Qualifying Termination, the Company will pay Employee, as cash severance (i) six (6) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date, less applicable payroll deductions and withholdings; *provided, however,* in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Company will instead pay Employee twelve (12) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date (either such amount, the “Base Severance”), plus (ii) in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, a pro rata portion of Employee’s “target” Annual Bonus for the year in which Employee’s Qualifying Termination occurs based upon the amount of time Employee was employed by the Company during the year in which Employee’s Qualifying Termination occurs (the “Bonus Severance,” and with the “Base Severance,” the “Severance”).

   Except in the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in installments in the form of continuation of Employee’s Base Salary payments, paid on the Company’s ordinary payroll dates, commencing on the Company’s first regular payroll date that is more than sixty (60) days following
Employee’s Separation from Service date. The first such installment shall be for any accrued Base Salary for the sixty (60)-day period plus the period from the sixtieth (60th) day until the regular payroll date, if applicable. All salary continuation payments thereafter, if any, shall be made on the Company’s regular payroll dates.

In the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date.

Any Bonus Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date, but in any event no later than March 15 of the year following the year in which Employee’s Separation from Service date occurs.

(b) COBRA Severance. As additional severance, in the event of Employee’s Qualifying Termination, the Company will continue to pay the cost of Employee’s health care coverage in effect at the time of Employee’s Separation from Service for the equivalent number of months as the Base Severance is paid (the “COBRA Coverage Period”), either under the Company’s regular health plan (if permitted) or by paying Employee’s COBRA premiums (the “COBRA Severance”). The Company’s obligation to pay the COBRA Severance on Employee’s behalf will cease if Employee obtains health care coverage from another source (e.g., a new employer or spouse’s benefit plan), unless otherwise prohibited by applicable law. Employee must notify the Company within two (2) weeks if Employee obtains coverage from a new source. This payment of COBRA Severance by the Company would not expand or extend the maximum period of COBRA coverage to which Employee would otherwise be entitled under applicable law. Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the foregoing COBRA Severance without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), or if the Company otherwise elects, in its sole discretion, the Company shall in lieu thereof provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue Employee’s group health coverage in effect on the date of Employee’s termination (which amount shall be based on the premium for the first month of COBRA coverage), which payments shall be made on the last day of each month regardless of whether Employee elects COBRA continuation coverage and shall end on the earlier of (x) the date upon which Employee obtains other coverage or (y) the last day of applicable COBRA Coverage Period.

(c) Accelerated Vesting. In the event of Employee’s Qualifying Termination before the closing of a Change in Control, such number of Employee’s then-unvested Stock Awards (as defined below) shall be deemed vested effective immediately prior to such termination as would have vested by their terms during the six (6) months following Employee’s date of termination had Employee remained employed by the Company during such period, provided that, (i) Employee complies with Sections 9 and 10 below, (ii) Employee continues to comply with the terms of this Agreement (including without limitation Section 12 below) and (iii) Employee resigns from any and all positions Employee holds with the Company, with such resignations to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board). The foregoing accelerated vesting provisions are hereby referred to as “Accelerated Vesting” and are deemed to be a part of each Stock Award and to amend and supersede any provision in any agreement or plan regarding such Stock Award, even if such Accelerated Vesting provisions are less favorable. In the event of any conflict between the foregoing Accelerated Vesting provisions and the terms of any Stock Award, including any Stock Award granted prior to the Effective Date, the Accelerated Vesting provisions shall apply. Notwithstanding the foregoing, the Accelerated Vesting shall be in addition to, and not in any way in limitation of, the
accelerated vesting provisions set forth in that certain Restricted Stock Purchase Agreement dated as of December 14, 2017, between the Company and Douglas A. Holtzman, as amended from time to time, pursuant to which the Founders Shares were issued to Employee. Notwithstanding the foregoing, any Stock Award granted after the Effective Date may be subject to additional accelerated vesting provisions in connection with a Change in Control, pursuant to the terms and conditions set forth in such Stock Award’s applicable award agreement.

8. Resignation Without Good Reason; Termination for Cause; Death or Disability. If, at any time, Employee resigns his employment with the Company without Good Reason, or the Company terminates Employee’s employment for Cause, or Employee’s employment with the Company terminates for any reason not entitling Employee to the Severance Benefits or Accelerated Vesting pursuant to Section 7 above, including as a result of Employee’s death or disability, then Employee will receive his Base Salary accrued through his last day of employment. Under these circumstances, Employee will not be entitled to any other form of compensation from the Company, including any Severance Benefits or Accelerated Vesting, other than Employee’s rights to the vested portion of Employee’s Stock Awards and any other rights to which Employee is entitled under the Company’s benefit programs. In addition, Employee shall resign from any and all positions Employee holds with the Company, with such resignations to be effective no later than the date of Employee’s employment termination (or such other date requested or permitted by the Board).

9. Conditions to Receipt of Severance Benefits and Accelerated Vesting. Prior to and as a condition to Employee’s receipt of the Severance Benefits or Accelerated Vesting described above, Employee shall timely execute and deliver to the Company a release of claims in favor of and in a form acceptable to the Company (the “Release”) and allow the Release to become effective according to its terms (by not invoking any legal right to revoke it) within sixty (60) days following Employee’s Separation from Service date (such sixty (60) day period, the “Release Period”).

10. Compliance with Section 409A. It is intended that the Severance Benefits and Accelerated Vesting set forth in this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code (Section 409A, together with any state law of similar effect, “Section 409A”) provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations 1.409A-2(b)(2)(iii)), Employee’s right to receive any installment payments under this Agreement (whether severance payments, reimbursements or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment. Notwithstanding any provision to the contrary in this Agreement, if the Company (or, if applicable, the successor entity thereto) determines that the Severance Benefits or Accelerated Vesting constitute “deferred compensation” under Section 409A and Employee is, on the date of Employee’s Separation from Service, a “specified employee” of the Company or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of adverse personal tax consequences under Section 409A, the timing of the Severance Benefits and Accelerated Vesting shall be delayed until the earliest of: (a) the date that is six (6) months and one (1) day after Employee’s Separation from Service date, (b) the date of Employee’s death, or (c) such earlier date as permitted under Section 409A without the imposition of adverse taxation. Upon the first business day following the expiration of such applicable Code Section 409A(a)(2)(B)(i) period, all payments or benefits deferred pursuant to this Section 10 shall be paid in a lump sum or provided in full by the Company (or the successor entity thereto, as applicable), and any remaining payments due shall be paid as otherwise provided herein. No interest shall be due on any amounts so deferred. The Severance Benefits and Accelerated Vesting are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be
interpreted accordingly. Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be paid on or before the last day of Employee’s taxable year following the taxable year in which Employee incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Employee, and Employee’s right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

11. **Withholding Taxes.** All forms of compensation referred to in these Terms of Employment will be subject to reduction to reflect applicable withholding and payroll taxes.

12. **Compliance with Confidential Information and Inventions Agreement and Company Policies.** In the performance of services for the Company, Employee will be expected to abide by Company rules and policies. Employee and the Company have entered into a Confidential Information and Inventions Assignment Agreement attached hereto as Exhibit A which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. Employee agrees to perform each and every obligation of Employee therein contained. Notwithstanding the foregoing or in the Confidential Information and Inventions Assignment Agreement, pursuant to 18 U.S.C. Section 1833(b), Employee shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

13. **Protection of Third Party Information.** In Employee’s work for the Company, Employee will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom Employee has an obligation of confidentiality. Rather, Employee will be expected to use only that information which is generally known and used by persons with training and experience comparable to his own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. Employee agrees that Employee will not bring onto Company premises any unpublished documents or property belonging to any former employer or other person to whom Employee has an obligation of confidentiality. Employee hereby represents that he has disclosed to the Company any contract he has signed that may restrict his activities on behalf of the Company.

14. **Return of Company Property.** Upon the termination of Employee’s employment with the Company for any reason, as a precondition to the receipt of the Accelerated Vesting, within five (5) days after Employee’s Separation from Service date (or earlier if requested by the Company), Employee will return to the Company all Company documents (and all copies thereof) and other Company property within their possession, custody or control, including but not limited to Company files, notes, financial and operational information, customer lists and contact information, investor and finance source lists and contract information, product information, research and development information, drawings, records, plans, forecasts, reports, payroll information, spreadsheets, studies, analyses, compilations of data, proposals, agreements, sales and marketing information, personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including but not limited to computers, facsimile machines, mobile telephones, tablets, handheld devices and servers), credit cards, entry cards, identification badges and keys, and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part and in any medium). Employee shall deliver to the Board a signed statement certifying compliance with this Section 14 prior to the receipt of the Accelerated Vesting.
15. **Exclusive Services.** Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder and shall devote substantially all of his productive time and efforts to the performance of such duties. Subject to the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to personal and family investments or serving on community and civic boards, or participating in industry associations, provided such activities do not interfere with the duties to the Company, as determined in good faith by the Board. Employee agrees that he will not join any boards, other than community and civic boards (which do not interfere with Employee’s duties to the Company), without the prior approval of the Board. The Board may require termination of Employee’s participation in other business or public activities if the Board, in its sole discretion, determines that such activities compromise or threaten to compromise the Company’s business interests or conflict with Employee’s duties to the Company. During Employee’s employment by the Company, except on behalf of the Company, Employee will not directly or indirectly serve as an officer, director, stockholder, employee, partner, proprietor, investor, joint venturer, associate, representative or consultant of any other person, corporation, firm, partnership or other entity whatsoever known by Employee to compete with the Company (or is planning or preparing to compete with the Company), anywhere in the world; provided, however, that Employee may purchase or otherwise acquire up to (but not more than) one percent (1%) of any class of securities of any enterprise (but without participating in the activities of such enterprise) if such securities are listed on any national or regional securities exchange. If the Board determines Employee is in breach of this Section 15, and provided such breach is not cured within thirty (30) days of written notification of such breach from the Board, then the Company may terminate Employee’s employment for Cause.

16. **Dispute Resolution.** To ensure the rapid and economical resolution of disputes that may arise in connection with Employee’s service or employment with the Company, Employee and the Company agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, Employee’s service or employment with the Company, or the termination of such service or employment, shall be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in the city of the Company’s then principal place of business in the United States conducted by JAMS or its successor, under the then applicable JAMS Arbitration Rules and Procedures for Employment Disputes (available at http://www.jamsadr.com/rules-employment-arbitration/). Employee acknowledges that by agreeing to this arbitration procedure, he waives the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. Employee will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written statement signed by the arbitrator regarding the disposition of each claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator’s essential findings and conclusions on which the award is based. The arbitrator shall be authorized to award all relief that Employee or the Company would be entitled to seek in a court of law. The Company shall pay all JAMS arbitration fees in excess of the administrative fees that Employee would be required to pay if the dispute were decided in a court of law. The parties agree this arbitration agreement does not extend to claims for workers’ compensation or unemployment benefits, or any other claims, that Employee cannot, as a matter of applicable law, be required to arbitrate, nor does it preclude Employee from initiating a complaint before the Equal Employment Opportunity Commission or any other governmental agency, but if any such complaint is not resolved before the agency any action for money damages shall be submitted to arbitration pursuant to this paragraph. Nothing in this Agreement is intended to prevent any party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration.
17. **Miscellaneous.** This Agreement, together with the Confidential Information and Inventions Assignment Agreement, forms the complete and exclusive statement governing Employee’s employment with the Company. It supersedes any other agreements or promises made to Employee by anyone, whether oral or written, including, without limitation, the Prior Agreement. Changes in the terms of Employee’s employment, other than those changes expressly reserved to the Company’s or the Board’s discretion in this Agreement, require a written modification approved by the Company and signed by a duly authorized officer of the Company. This Agreement will bind the heirs, personal representatives, successors and assigns of Employee and the Company, and inure to the benefit of Employee and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law. This Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. Any ambiguity in this Agreement shall not be construed against any party as the drafter. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and facsimile and electronic signatures shall be equivalent to original signatures.

18. **Definitions.** For purposes of this Agreement, the following terms shall have the following meanings:

(a) “**Cause**” shall mean the occurrence of any of the following events, in each instance that has a material adverse impact on the Company or any successor or affiliate thereof as determined by the Board in its reasonable discretion: (a) Employee’s conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) Employee’s commission of, or participation in, a fraud or act of dishonesty or other illegal act against the Company; (c) Employee’s intentional, material violation of any contract or agreement between Employee and the Company or of any statutory duty owed to the Company; (d) Employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (e) gross misconduct; provided, that, with respect to (c) and (d) above, “**Cause**” will be triggered after Employee has received written notification of such failure from the Board, which, if curable, remains uncured after thirty (30) days written notice from the Board.

(b) “**Change in Control**” shall mean (a) a merger or consolidation of the Company with or into any other corporation or other entity or person, (b) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (c) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to such transaction acquires or holds capital stock of the Company representing a majority of the Company’s outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “**Change in Control**”: (i) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (ii) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (iii) an initial public offering of any of the Company’s securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (iv) a reincorporation of the Company solely to change its jurisdiction; (v) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held the Company’s stock immediately prior to such transaction; (vi) a transaction in which the Company has sold all or substantially all of its assets to a third party; or (vii) a Change in Control that would materially affect the rights of Employee or the Company.”
securities immediately before such transaction; or (vi) a Qualified Funding Event. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any payment or benefit that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event for such Award, to the extent required by Section 409A.

(c) “Founders Shares” shall mean those shares issued to Employee pursuant to that certain Restricted Stock Purchase Agreement dated as of December 14, 2017, between the Company and Employee, as may be amended from time to time.

(d) “Good Reason” shall mean any of the following actions taken without Cause by the Company or a successor corporation or entity without Employee’s consent: (a) material reduction of Employee’s base compensation, other than a reduction that applies generally to all similarly-situated personnel; (b) material reduction in Employee’s authority, duties or responsibilities, provided, however, that a change in job position (including a change in title) shall not be deemed a “material reduction” unless Employee’s new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities; or (c) relocation of the principal place at which Employee is required to provide services to the Company or Employee’s principal place of employment that results in an increase in Employee’s one-way driving distance by more than fifty (50) miles from Employee’s then current principal place of business or residence, as applicable. In order to resign for Good Reason, Employee must provide written notice of the event giving rise to Good Reason to the Company within ninety (90) days after the condition arises, allow the Company thirty (30) days to cure such condition, and if the Company fails to cure the condition within such period, then Employee’s resignation from all positions Employee then holds with the Company must be effective not later than ninety (90) days after the end of the Company’s cure period.

(e) “Qualified Funding Event” shall mean any of the following: (a) an equity financing with gross proceeds to the Company of at least $5,000,000.00 in which investors purchase any series of the Company’s Preferred Stock other than its Series 1 Preferred Stock; or (b) any option, phased acquisition, non-dilutive financing or similar transaction with gross proceeds to the Company of at least $5,000,000.00 granting a person or entity, or group of related persons or entities, the right to ultimately proceed with a Sale Transaction.

(f) “Sale Transaction” shall mean any of the following transactions: (a) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the shares of capital stock of the Company immediately prior to such consolidation, merger or reorganization, continue to represent a majority of the voting power of the surviving entity (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; (b) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company’s voting power is transferred, excluding any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof; or (c) any sale, lease, exclusive license or other disposition of the intellectual property or assets of the Company.

(g) “Separation from Service” shall mean a “separation from service” as such term is defined in Treasury Regulation Section 1.409A-1(h).
(h) "Stock Awards" shall mean means all stock options, restricted stock and such other awards granted pursuant to the Company’s stock option and equity incentive award plans or agreements and any shares of stock issued upon exercise thereof, including the Founders Shares.

(Signature Page Follows)

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Sincerely,

ICOSAVAX, INC.

By: /s/ Adam K. Simpson
    Adam K. Simpson, Chief Executive Officer

ACKNOWLEDGED AND AGREED:

/s/ Douglas A. Holtzman
Douglas A. Holtzman
August 15, 2019

Niranjan Kanesa-thasan, MD MTMH

Re: Employment Letter Agreement

Dear Niranjan:

In connection with the transactions contemplated by the Series A Preferred Stock Purchase Agreement, dated as of August 15, 2019, by and among the Company and the Purchasers named therein (the “Transaction”), we are amending and restating the terms of your position at Icosavax, Inc. (the "Company"), as previously set forth on that certain Consulting Agreement, dated September 1, 2018 (the “Prior Agreement”), by and between the Company and you (also referred herein as “Employee” and together, the “Parties”). Please note that this employment letter agreement (this “Agreement”) is contingent on the closing of the Transaction (the “Closing”), and shall become effective as of the Closing (the “Effective Date”). In the event the Closing does not occur on or before December 31, 2019, this Agreement shall have no force and effect and shall be null and void, and the Prior Agreement shall remain in effect. In consideration of the mutual promises herein contained, the Parties agree as follows:

1. **Commencement of Employment.** Employee’s employment with the Company will commence automatically immediately following the Effective Date.

2. **Position.** Employee will serve in the position of Chief Medical Officer. Employee will report to the Company’s Chief Executive Officer, and shall be responsible for the duties customarily associated with this position and such other duties assigned by the Company. Employee shall perform the majority of such services remotely from Lexington, Massachusetts and periodically at the Company’s facility located at Seattle, Washington. Of course, the Company may change Employee’s position, duties, and work location from time to time in its discretion. Employee will be employed on a part-time basis and will spend at least fifty percent (50%) of Employee’s business time and efforts towards the performance of his duties for the Company.

3. **Base Salary and Employee Benefits.**
   
   (a) **Salary.** Initially, Employee’s base salary will be $175,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.

   (b) **Benefits.** During his employment, Employee will be eligible to participate in the standard benefits plans offered to similarly situated employees by the Company from time to time, subject to plan terms and generally applicable Company policies. A full description of these benefits will be available upon request. Employee will be eligible to accrue vacation or paid time off in accordance with the Company’s policies as in effect from time to time. The Company may change compensation and benefits from time to time in its discretion.

   (c) **Expenses.** All reasonable business expenses that are documented by Employee and incurred in the ordinary course of business will be reimbursed in accordance with the Company’s standard policies and procedures.
4. **Annual Bonus.** Commencing with the calendar year in which the Effective Date occurs, Employee will be eligible to earn an annual performance bonus of up to thirty percent (30%) of Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels. The Annual Bonus will be based upon an assessment by the Board of Directors of the Company (the “Board”) of Employee’s performance and the Company’s attainment of written targeted goals as set by the Board in its sole discretion. Bonus payments, if any, will be subject to applicable payroll deductions and withholdings. Following the close of each calendar year, the Board will determine whether Employee has earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and Employee must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus; except as provided in Section 7 below, no partial or prorated bonuses will be provided. The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

5. **Qualified Funding Event Bonus.** Upon the Effective Date, Employee shall be eligible to receive a one-time bonus equal to (a) (i) $70,000, divided by (ii) 365, multiplied by (b) the number of days elapsed from September 1, 2018 through and including the Effective Date, which bonus shall be paid to Kanesa, LLC within ten (10) days following the Effective Date, less withholding taxes.

6. **At-Will Employment Relationship.** Employee may terminate his employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate Employee’s employment at any time, with or without cause or advance notice. Employee’s employment at-will status can only be modified in a written agreement signed by Employee and by an officer of the Company.

7. **Severance Benefits.** If, at any time, the Company terminates Employee’s employment without Cause or Employee resigns for Good Reason (either such termination referred to as a “Qualifying Termination”), provided such termination or resignation also constitutes a Separation from Service (as defined below), then subject to Sections 9 and 10 below, Employee’s continued compliance with the terms of this Agreement (including without limitation Section 12 below) and Employee’s resignation from any and all positions Employee may hold with the Company, to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board), the Company will provide Employee with the following severance benefits (the “Severance Benefits”):

   (a) **Cash Severance.** Upon a Qualifying Termination, the Company will pay Employee, as cash severance (i) six (6) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date, less applicable payroll deductions and withholdings; provided, however, in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Company will instead pay Employee twelve (12) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date (either such amount, the “Base Severance”), plus (ii) in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, a pro rata portion of Employee’s “target” Annual Bonus for the year in which Employee’s Qualifying Termination occurs based upon the amount of time Employee was employed by the Company during the year in which Employee’s Qualifying Termination occurs (the “Bonus Severance,” and with the “Base Severance,” the “Severance”).

   Except in the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in installments in the form of continuation of Employee’s Base Salary payments, paid on the Company’s ordinary payroll dates, commencing on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date. The first such installment shall be for any accrued Base Salary for the sixty (60)-day period plus the period from the sixtieth (60th) day until the regular payroll date, if
applicable. All salary continuation payments thereafter, if any, shall be made on the Company’s regular payroll dates.

In the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date.

Any Bonus Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date, but in any event no later than March 15 of the year following the year in which Employee’s Separation from Service date occurs.

(b) **COBRA Severance.** As additional severance, in the event of Employee’s Qualifying Termination, the Company will continue to pay the cost of Employee’s health care coverage in effect at the time of Employee’s Separation from Service for the equivalent number of months as the Base Severance is paid (the “**COBRA Coverage Period**”), either under the Company’s regular health plan (if permitted) or by paying Employee’s COBRA premiums (the “**COBRA Severance**”). The Company’s obligation to pay the COBRA Severance on Employee’s behalf will cease if Employee obtains health care coverage from another source (e.g., a new employer or spouse’s benefit plan), unless otherwise prohibited by applicable law. Employee must notify the Company within two (2) weeks if Employee obtains coverage from a new source. This payment of COBRA Severance by the Company would not expand or extend the maximum period of COBRA coverage to which Employee would otherwise be entitled under applicable law. Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the foregoing COBRA Severance without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), or if the Company otherwise elects, in its sole discretion, the Company shall in lieu thereof provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue Employee’s group health coverage in effect on the date of Employee’s termination (which amount shall be based on the premium for the first month of COBRA coverage), which payments shall be made on the last day of each month regardless of whether Employee elects COBRA continuation coverage and shall end on the earlier of (x) the date upon which Employee obtains other coverage or (y) the last day of applicable COBRA Coverage Period.

(c) **Accelerated Vesting.** In the event of Employee’s Qualifying Termination before the closing of a Change in Control, such number of Employee’s then-unvested Stock Awards (as defined below) shall be deemed vested effective immediately prior to such termination as would have vested by their terms during the six (6) months following Employee’s date of termination had Employee remained employed by the Company during such period, provided that, (i) Employee complies with Sections 9 and 10 below, (ii) Employee continues to comply with the terms of this Agreement (including without limitation Section 12 below) and (iii) Employee resigns from any and all positions Employee holds with the Company, with such resignations to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board). In the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, with respect to Employee’s then-unvested Stock Awards granted prior to the Effective Date (the “**Existing Stock Awards**”), all such Existing Stock Awards shall be deemed vested effective immediately prior to such termination. The foregoing accelerated vesting provisions are hereby referred to as “**Accelerated Vesting**” and are deemed to be a part of each Stock Award and to amend and supersede any provision in any agreement or plan regarding such Stock Award, even if such Accelerated Vesting provisions are less favorable. In the event of any conflict between the foregoing Accelerated Vesting provisions and the terms of any Stock Award, including any Existing Stock Award, the Accelerated Vesting provisions shall

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apply. Notwithstanding the foregoing, any Stock Award granted after the Effective Date may be subject to additional accelerated vesting provisions in connection with a Change in Control, pursuant to the terms and conditions set forth in such Stock Award’s applicable award agreement.

8. **Resignation Without Good Reason; Termination for Cause; Death or Disability.** If, at any time, Employee resigns his employment with the Company without Good Reason, or the Company terminates Employee’s employment for Cause, or Employee’s employment with the Company terminates for any reason not entitling Employee to the Severance Benefits or Accelerated Vesting pursuant to Section 7 above, including as a result of Employee’s death or disability, then Employee will receive his Base Salary accrued through his last day of employment. Under these circumstances, Employee will not be entitled to any other form of compensation from the Company, including any Severance Benefits or Accelerated Vesting, other than Employee’s rights to the vested portion of Employee’s Stock Awards and any other rights to which Employee is entitled under the Company’s benefit programs. In addition, Employee shall resign from any and all positions Employee holds with the Company, with such resignations to be effective no later than the date of Employee’s employment termination (or such other date requested or permitted by the Board).

9. **Conditions to Receipt of Severance Benefits and Accelerated Vesting.** Prior to and as a condition to Employee’s receipt of the Severance Benefits or Accelerated Vesting described above, Employee shall timely execute and deliver to the Company a release of claims in favor of and in a form acceptable to the Company (the “Release”) and allow the Release to become effective according to its terms (by not invoking any legal right to revoke it) within sixty (60) days following Employee’s Separation from Service date (such sixty (60) day period, the “Release Period”).

10. **Compliance with Section 409A.** It is intended that the Severance Benefits and Accelerated Vesting set forth in this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code (Section 409A, together with any state law of similar effect, “Section 409A”) provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations 1.409A-2(b)(2)(iii)), Employee’s right to receive any installment payments under this Agreement (whether severance payments, reimbursements or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment. Notwithstanding any provision to the contrary in this Agreement, if the Company (or, if applicable, the successor entity thereto) determines that the Severance Benefits or Accelerated Vesting constitute “deferred compensation” under Section 409A and Employee is, on the date of Employee’s Separation from Service, a “specified employee” of the Company or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of adverse personal tax consequences under Section 409A, the timing of the Severance Benefits and Accelerated Vesting shall be delayed until the earliest of: (a) the date that is six (6) months and one (1) day after Employee’s Separation from Service date, (b) the date of Employee’s death, or (c) such earlier date as permitted under Section 409A without the imposition of adverse taxation. Upon the first business day following the expiration of such applicable Code Section 409A(a)(2)(B)(i) period, all payments or benefits deferred pursuant to this Section 10 shall be paid in a lump sum or provided in full by the Company (or the successor entity thereto, as applicable), and any remaining payments due shall be paid as otherwise provided herein. No interest shall be due on any amounts so deferred. The Severance Benefits and Accelerated Vesting are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be interpreted accordingly. Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be paid on or before the last day of Employee’s taxable year following the taxable year in which Employee
incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Employee, and Employee’s right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

11. **Withholding Taxes.** All forms of compensation referred to in these Terms of Employment will be subject to reduction to reflect applicable withholding and payroll taxes.

12. **Compliance with Confidential Information and Inventions Agreement and Company Policies.** In the performance of services for the Company, Employee will be expected to abide by Company rules and policies. Employee and the Company have entered into a Confidential Information and Inventions Assignment Agreement attached hereto as Exhibit A which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. Employee agrees to perform each and every obligation of Employee therein contained. Any references in your Confidential Information and Inventions Assignment Agreement to the Prior Agreement shall be deemed to be amended to refer to this Agreement. Notwithstanding the foregoing or in the Confidential Information and Inventions Assignment Agreement, pursuant to 18 U.S.C. Section 1833(b), Employee shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

13. **Protection of Third Party Information.** In Employee’s work for the Company, Employee will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom Employee has an obligation of confidentiality. Rather, Employee will be expected to use only that information which is generally known and used by persons with training and experience comparable to his own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. Employee agrees that Employee will not bring onto Company premises any unpublished documents or property belonging to any former employer or other person to whom Employee has an obligation of confidentiality. Employee hereby represents that he has disclosed to the Company any contract he has signed that may restrict his activities on behalf of the Company.

14. **Return of Company Property.** Upon the termination of Employee’s employment with the Company for any reason, as a precondition to the receipt of the Accelerated Vesting, within five (5) days after Employee’s Separation from Service date (or earlier if requested by the Company), Employee will return to the Company all Company documents (and all copies thereof) and other Company property within their possession, custody or control, including but not limited to Company files, notes, financial and operational information, customer lists and contact information, investor and finance source lists and contract information, product information, research and development information, drawings, records, plans, forecasts, reports, payroll information, spreadsheets, studies, analyses, compilations of data, proposals, agreements, sales and marketing information, personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including but not limited to computers, facsimile machines, mobile telephones, tablets, handheld devices and servers), credit cards, entry cards, identification badges and keys, and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part and in any medium). Employee shall deliver to the Board a signed statement certifying compliance with this Section 14 prior to the receipt of the Accelerated Vesting.
15. **Exclusive Services.** Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder and shall devote at least forty percent (40%) of his productive time and efforts to the performance of such duties. Subject to the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to personal and family investments or serving on community and civic boards, or participating in industry associations, or engaging in other business activities (including providing consulting services to other entities), provided such activities do not interfere with the duties to the Company, as determined in good faith by the Board. Employee agrees that he will not join any boards, other than community and civic boards (which do not interfere with Employee’s duties to the Company), without the prior approval of the Board. The Board may require termination of Employee’s participation in other business or public activities if the Board, in its sole discretion, determines that such activities compromise or threaten to compromise the Company’s business interests or conflict with Employee’s duties to the Company. During Employee’s employment by the Company, except on behalf of the Company, Employee will not directly or indirectly serve as an officer, director, stockholder, employee, partner, proprietor, investor, joint venturer, associate, representative or consultant of any other person, corporation, firm, partnership or other entity whatsoever known by Employee to compete with the Company (or is planning or preparing to compete with the Company) in the fields of respiratory syncytial virus and cytomegalovirus or any other vaccine indications in development by the Company, anywhere in the world; provided, however, that Employee may purchase or otherwise acquire up to (but not more than) one percent (1%) of any class of securities of any enterprise (but without participating in the activities of such enterprise) if such securities are listed on any national or regional securities exchange. If the Board determines Employee is in breach of this Section 15, and provided such breach is not cured within thirty (30) days of written notification of such breach from the Board, then the Company may terminate Employee’s employment for Cause.

16. **Dispute Resolution.** To ensure the rapid and economical resolution of disputes that may arise in connection with Employee’s service or employment with the Company, Employee and the Company agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, Employee’s service or employment with the Company, or the termination of such service or employment, shall be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in the city of the Company’s then principal place of business in the United States conducted by JAMS or its successor, under the then applicable JAMS Arbitration Rules and Procedures for Employment Disputes (available at http://www.jamsadr.com/rules-employment-arbitration/). Employee acknowledges that by agreeing to this arbitration procedure, he waives the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. Employee will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written statement signed by the arbitrator regarding the disposition of each claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator’s essential findings and conclusions on which the award is based. The arbitrator shall be authorized to award all relief that Employee or the Company would be entitled to seek in a court of law. The Company shall pay all JAMS arbitration fees in excess of the administrative fees that Employee would be required to pay if the dispute were decided in a court of law. The parties agree this arbitration agreement does not extend to claims for workers’ compensation or unemployment benefits, or any other claims, that Employee cannot, as a matter of applicable law, be required to arbitrate, nor does it preclude Employee from initiating a complaint before the Equal Employment Opportunity Commission or any other governmental agency, but if any such complaint is not resolved before the agency any action for money damages shall be submitted to arbitration pursuant to this paragraph. Nothing in this Agreement is intended to prevent any party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration.

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17. **Miscellaneous.** This Agreement, together with the Confidential Information and Inventions Assignment Agreement, forms the complete and exclusive statement governing Employee’s employment with the Company. It supersedes any other agreements or promises made to Employee by anyone, whether oral or written, including, without limitation, the Prior Agreement. Changes in the terms of Employee’s employment, other than those changes expressly reserved to the Company’s or the Board’s discretion in this Agreement, require a written modification approved by the Company and signed by a duly authorized officer of the Company. This Agreement will bind the heirs, personal representatives, successors and assigns of Employee and the Company, and inure to the benefit of Employee and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law. This Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. Any ambiguity in this Agreement shall not be construed against any party as the drafter. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and facsimile and electronic signatures shall be equivalent to original signatures.

18. **Definitions.** For purposes of this Agreement, the following terms shall have the following meanings:

(a) “**Cause**” shall mean the occurrence of any of the following events, in each instance that has a material adverse impact on the Company or any successor or affiliate thereof as determined by the Board in its reasonable discretion: (a) Employee’s conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) Employee’s commission of, or participation in, a fraud or act of dishonesty or other illegal act against the Company; (c) Employee’s intentional, material violation of any contract or agreement between Employee and the Company or of any statutory duty owed to the Company; (d) Employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (e) gross misconduct; provided, that, with respect to (c) and (d) above, “**Cause**” will be triggered after Employee has received written notification of such failure from the Board, which, if curable, remains uncured after thirty (30) days written notice from the Board.

(b) “**Change in Control**” shall mean (a) a merger or consolidation of the Company with or into any other corporation or other entity or person, (b) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (c) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to such transaction acquires or holds capital stock of the Company representing a majority of the Company’s outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “**Change in Control**”: (i) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (ii) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (iii) an initial public offering of any of the Company’s securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (iv) a reincorporation of the Company solely to change its jurisdiction; (v) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held the Company’s
securities immediately before such transaction; or (vi) a Qualified Funding Event. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any payment or benefit that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event for such Award, to the extent required by Section 409A.

(c) “Good Reason” shall mean any of the following actions taken without Cause by the Company or a successor corporation or entity without Employee’s consent: (a) material reduction of Employee’s base compensation, other than a reduction that applies generally to all similarly-situated personnel; or (b) material reduction in Employee’s authority, duties or responsibilities, provided, however, that a change in job position (including a change in title) shall not be deemed a “material reduction” unless Employee’s new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities. In order to resign for Good Reason, Employee must provide written notice of the event giving rise to Good Reason to the Company within ninety (90) days after the condition arises, allow the Company thirty (30) days to cure such condition, and if the Company fails to cure the condition within such period, then Employee’s resignation from all positions Employee then holds with the Company must be effective not later than ninety (90) days after the end of the Company’s cure period.

(d) “Qualified Funding Event” shall mean any of the following: (a) an equity financing with gross proceeds to the Company of at least $5,000,000.00 in which investors purchase any series of the Company’s Preferred Stock other than its Series 1 Preferred Stock; or (b) any option, phased acquisition, non-dilutive financing or similar transaction with gross proceeds to the Company of at least $5,000,000.00 granting a person or entity, or group of related persons or entities, the right to ultimately proceed with a Sale Transaction.

(e) “Sale Transaction” shall mean any of the following transactions: (a) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the shares of capital stock of the Company immediately prior to such consolidation, merger or reorganization, continue to represent a majority of the voting power of the surviving entity (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; (b) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company’s voting power is transferred, excluding any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof; or (c) any sale, lease, exclusive license or other disposition of the intellectual property or assets of the Company.

(f) “Separation from Service” shall mean a “separation from service” as such term is defined in Treasury Regulation Section 1.409A-1(h).

(g) “Stock Awards” shall mean means all stock options, restricted stock and such other awards granted pursuant to the Company’s stock option and equity incentive award plans or agreements and any shares of stock issued upon exercise thereof.

(Signature Page Follows)
Sincerely,

ICOSAVAX, INC.

By: /s/ Adam K. Simpson
   Adam K. Simpson, Chief Executive Officer

ACKNOWLEDGED AND AGREED:

/s/ Niranjan Kanesa-thasan
Niranjan Kanesa-thasan, MD MTMH
This AMENDMENT TO EMPLOYMENT LETTER AGREEMENT (this “Amendment”) is made and entered into effective as of January 1, 2020, by and between Icosavax, Inc. (the “Company”) and Niranjan KanesathaSan, MD MTMH (“Employee”).

RECITALS

WHEREAS, Employee and the Company previously entered into that certain Employment Letter Agreement, dated as of August 15, 2019 (the “Agreement”), pursuant to which Employee currently is employed by the Company; and

WHEREAS, the Company and Employee wish to enter into this Amendment to modify certain terms of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants and the respective undertakings of the Company and Employee set forth below, the Company and Employee agree as follows:

AGREEMENT

1. Amendment to Section 2. The last sentence of Section 2 of the Agreement is hereby amended to read as follows:

“Employee will be employed on a part-time basis and will spend at least eighty percent (80%) of Employee’s business time and efforts towards the performance of his duties for the Company.”

2. Amendment to Section 3(a). Section 3(a) of the Agreement is hereby amended to read as follows:

“(a) Salary. Employee’s base salary will be $290,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.”

3. Status of Agreement. Except to the limited extent expressly amended hereby, the Agreement and its terms and conditions remain in full force and effect and unchanged by this Amendment. Capitalized terms used herein but not defined herein shall have the meanings ascribed such terms in the Agreement.

4. Duplicate Counterparts; Facsimile. This Amendment may be executed in duplicate counterparts, each of which shall be deemed an original; provided, however, such counterparts shall together constitute only one agreement. Facsimile signatures or signatures sent via electronic mail shall be as effective as original signatures.
IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date(s) set forth below.

ICOSAVAX, INC.

Dated: July 7, 2020

By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: Chief Executive Officer

EMPLOYEE

Dated: July 8, 2020

/s/ Niranjan Kanesa-thasan
Niranjan Kanesa-thasan, MD MTMH
AMENDMENT TO EMPLOYMENT LETTER AGREEMENT

This AMENDMENT TO EMPLOYMENT LETTER AGREEMENT (this “Amendment”) is made and entered into effective as of April 1, 2020, by and between Icosavax, Inc. (the “Company”) and Niranjan Kanesa-thasan, MD MTMH (“Employee”).

RECITALS

WHEREAS, Employee and the Company previously entered into that certain Employment Letter Agreement, dated as of August 15, 2019, as amended by that certain Amendment to Employment Letter Agreement, effective as of January 1, 2020 (the “Agreement”), pursuant to which Employee currently is employed by the Company; and

WHEREAS, the Company and Employee wish to enter into this Amendment to modify certain terms of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants and the respective undertakings of the Company and Employee set forth below, the Company and Employee agree as follows:

AGREEMENT

1. Amendment to Section 2. The last sentence of Section 2 of the Agreement is hereby amended to read as follows:
   “Employee will be employed on a full-time basis.”

2. Amendment to Section 3(a). Section 3(a) of the Agreement is hereby amended to read as follows:
   “(a) Salary. Employee’s base salary will be $362,500 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.”

3. Amendment to Section 15. The first two sentences of Section 15 of the Agreement are hereby amended to read as follows:
   “Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder and shall devote substantially all of his productive time and efforts to the performance of such duties. Subject to the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to personal and family investments or serving on community and civic boards, or participating in industry associations, or engaging in other business activities (including providing consulting services to other entities), provided such activities do not interfere with the duties to the Company, as determined in good faith by the Company’s Chief Executive Officer.”
4. **Status of Agreement.** Except to the limited extent expressly amended hereby, the Agreement and its terms and conditions remain in full force and effect and unchanged by this Amendment. Capitalized terms used herein but not defined herein shall have the meanings ascribed such terms in the Agreement.

5. **Duplicate Counterparts; Facsimile.** This Amendment may be executed in duplicate counterparts, each of which shall be deemed an original; provided, however, such counterparts shall together constitute only one agreement. Facsimile signatures or signatures sent via electronic mail shall be as effective as original signatures.

[Signature page follows.]
IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date(s) set forth below.

ICOSAVAX, INC.

Dated: August 7, 2020
By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: Chief Executive Officer

EMPLOYEE

Dated: August 11, 2020
/s/ Niranjan Kanesa-thasan
Niranjan Kanesa-thasan, MD MTMH

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February 8, 2021

Cassia Cearley

Re: Amended and Restated Employment Letter Agreement

Dear Cassia:

We are amending and restating the terms of your position at Icosavax, Inc. (the “Company”), as previously set forth in that certain Employment Letter Agreement, dated October 30, 2019 (the “Prior Agreement”), by and between the Company and you (the “Employee”). In consideration of the mutual promises herein contained, the parties agree as follows:

1. **Continuation of Employment.** Employee’s employment with the Company will continue on the terms set forth in this Amended and Restated Employment Letter Agreement (this “Agreement”) effective on December 17, 2020 (the “Effective Date”).

2. **Position.** Employee will serve in the position of Chief Business Officer. Employee will report to the Company’s Chief Executive Officer, and shall be responsible for the duties customarily associated with this position and such other duties assigned by the Company. Employee will work at the Company’s facility located at Seattle, Washington. Of course, the Company may change Employee’s position, duties, and work location from time to time in its discretion. Employee will be employed on a full-time basis. This is an exempt position.

3. **Base Salary and Employee Benefits.**
   
   (a) **Salary.** Employee’s base salary will be $275,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.

   (b) **Benefits.** During her employment, Employee will be eligible to participate in the standard benefits plans offered to similarly situated employees by the Company from time to time, subject to plan terms and generally applicable Company policies. A full description of these benefits will be available upon request. Employee will be eligible to accrue vacation or paid time off in accordance with the Company’s policies as in effect from time to time. The Company may change compensation and benefits from time to time in its discretion.

   (c) **Expenses.** All reasonable business expenses that are documented by Employee and incurred in the ordinary course of business will be reimbursed in accordance with the Company’s standard policies and procedures.

4. **Annual Bonus.** During her employment, Employee will be eligible to earn an annual performance bonus of up to thirty percent (30%) of Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels. The Annual Bonus will be based upon an assessment by the Board of Directors of the Company (the “Board”) of Employee’s performance and the Company’s attainment of written targeted goals as set by the Board in its sole discretion. Bonus payments, if any, will be subject to applicable payroll deductions and withholdings. Following the close of each calendar year, the Board will determine whether Employee has earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of the Annual Bonus is guaranteed, and Employee must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus; except as provided

ICOSAVAX, INC.
in Section 6 below, no partial or prorated bonuses will be provided. The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

5. **At-Will Employment Relationship.** Employee may terminate her employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate Employee’s employment at any time, with or without cause or advance notice. Employee’s employment at-will status can only be modified in a written agreement signed by Employee and by an officer of the Company.

6. **Severance Benefits.** If, at any time, the Company terminates Employee’s employment without Cause or Employee resigns for Good Reason (either such termination referred to as a “Qualifying Termination”), provided such termination or resignation also constitutes a Separation from Service (as defined below), then subject to Sections 8 and 9 below, Employee’s continued compliance with the terms of this Agreement (including without limitation Section 11 below) and Employee’s resignation from any and all positions Employee may hold with the Company, to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board), the Company will provide Employee with the following severance benefits (the “Severance Benefits”):

   (a) **Cash Severance.** Upon a Qualifying Termination, the Company will pay Employee, as cash severance (i) six (6) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date, less applicable payroll deductions and withholdings; provided, however, in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Company will instead pay Employee twelve (12) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date (either such amount, the “Base Severance”), plus (ii) in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, a pro rata portion of Employee’s “target” Annual Bonus for the year in which Employee’s Qualifying Termination occurs based upon the amount of time Employee was employed by the Company during the year in which Employee’s Qualifying Termination occurs (the “Bonus Severance,” and with the “Base Severance,” the “Severance”).

   Except in the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in installments in the form of continuation of Employee’s Base Salary payments, paid on the Company’s ordinary payroll dates, commencing on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date. The first such installment shall be for any accrued Base Salary for the sixty (60)-day period plus the period from the sixtieth (60th) day until the regular payroll date, if applicable. All salary continuation payments thereafter, if any, shall be made on the Company’s regular payroll dates.

   In the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date.

   Any Bonus Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date, but in any event no later than March 15 of the year following the year in which Employee’s Separation from Service date occurs.

   (b) **COBRA Severance.** As additional severance, in the event of Employee’s Qualifying Termination, the Company will continue to pay the cost of Employee’s health care coverage in effect at the time of Employee’s Separation from Service for the equivalent number of months as the Base
Severance is paid (the “COBRA Coverage Period”), either under the Company’s regular health plan (if permitted) or by paying Employee’s COBRA premiums (the “COBRA Severance”). The Company’s obligation to pay the COBRA Severance on Employee’s behalf will cease if Employee obtains health care coverage from another source (e.g., a new employer or spouse’s benefit plan), unless otherwise prohibited by applicable law. Employee must notify the Company within two (2) weeks if Employee obtains coverage from a new source. This payment of COBRA Severance by the Company would not expand or extend the maximum period of COBRA coverage to which Employee would otherwise be entitled under applicable law. Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the foregoing COBRA Severance without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), or if the Company otherwise elects, in its sole discretion, the Company shall in lieu thereof provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue Employee’s group health coverage in effect on the date of Employee’s termination (which amount shall be based on the premium for the first month of COBRA coverage), which payments shall be made on the last day of each month regardless of whether Employee elects COBRA continuation coverage and shall end on the earlier of (x) the date upon which Employee obtains other coverage or (y) the last day of applicable COBRA Coverage Period.

(c) **Accelerated Vesting.** In the event of Employee’s Qualifying Termination before the closing of a Change in Control, such number of Employee’s then-unvested Stock Awards (as defined below) shall be deemed vested effective immediately prior to such termination as would have vested by their terms during the six (6) months following Employee’s date of termination had Employee remained employed by the Company during such period, provided that, (i) Employee complies with Sections 8 and 9 below, (ii) Employee continues to comply with the terms of this Agreement (including without limitation Section 11 below) and (iii) Employee rescinds from any and all positions Employee holds with the Company, with such resignations to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board). The foregoing accelerated vesting provisions are hereby referred to as “**Accelerated Vesting**” and are deemed to be a part of each Stock Award and to supersede any provision in any agreement or plan regarding such Stock Award (and, for the avoidance of doubt, if any Stock Award is subject to more favorable vesting than the Accelerated Vesting pursuant to any agreement or plan regarding such Stock Award, such more favorable provisions shall continue to apply and shall not be limited by this clause (c)).

7. **Resignation Without Good Reason; Termination for Cause; Death or Disability.** If, at any time, Employee resigns her employment with the Company without Good Reason, or the Company terminates Employee’s employment for Cause, or Employee’s employment with the Company terminates for any reason not entitling Employee to the Severance Benefits or Accelerated Vesting pursuant to Section 6 above, including as a result of Employee’s death or disability, then Employee will receive her Base Salary accrued through her last day of employment. Under these circumstances, Employee will not be entitled to any other form of compensation from the Company, including any Severance Benefits or Accelerated Vesting, other than Employee’s rights to the vested portion of Employee’s Stock Awards and any other rights to which Employee is entitled under the Company’s benefit programs. In addition, Employee shall resign from any and all positions Employee holds with the Company, with such resignations to be effective no later than the date of Employee’s employment termination (or such other date requested or permitted by the Board).

8. **Conditions to Receipt of Severance Benefits and Accelerated Vesting.** Prior to and as a condition to Employee’s receipt of the Severance Benefits or Accelerated Vesting described above, Employee shall timely execute and deliver to the Company a release of claims in favor of and in a form acceptable to the Company (the “**Release**”) and allow the Release to become effective according to its terms.
9. **Compliance with Section 409A.** It is intended that the Severance Benefits and Accelerated Vesting set forth in this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code (Section 409A, together with any state law of similar effect, “Section 409A”) provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations 1.409A-2(b)(2)(iii)), Employee’s right to receive any installment payments under this Agreement (whether severance payments, reimbursements or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment. Notwithstanding any provision to the contrary in this Agreement, if the Company (or, if applicable, the successor entity thereto) determines that the Severance Benefits or Accelerated Vesting constitute “deferred compensation” under Section 409A and Employee is, on the date of Employee’s Separation from Service, a “specified employee” of the Company or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of adverse personal tax consequences under Section 409A, the timing of the Severance Benefits and Accelerated Vesting shall be delayed until the earliest of: (a) the date that is six (6) months and one (1) day after Employee’s Separation from Service date, (b) the date of Employee’s death, or (c) such earlier date as permitted under Section 409A without the imposition of adverse taxation. Upon the first business day following the expiration of such applicable Code Section 409A(a)(2)(B)(i) period, all payments or benefits deferred pursuant to this Section 9 shall be paid in a lump sum or provided in full by the Company (or the successor entity thereto, as applicable), and any remaining payments due shall be paid as otherwise provided herein. No interest shall be due on any amounts so deferred. The Severance Benefits and Accelerated Vesting are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be interpreted accordingly. Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be paid on or before the last day of Employee’s taxable year following the taxable year in which Employee incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Employee, and Employee’s right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

10. **Withholding Taxes.** All amounts payable to Employee will be subject to reduction to reflect applicable withholding and payroll taxes.

11. **Compliance with Confidential Information and Inventions Agreement and Company Policies.** In the performance of services for the Company, Employee will be expected to abide by Company rules and policies. Employee and the Company have entered into a Confidential Information and Inventions Assignment Agreement (the “Confidential Information and Inventions Assignment Agreement”), attached hereto as Exhibit A, which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. Employee agrees to perform each and every obligation of Employee therein contained. Notwithstanding the foregoing or in the Confidential Information and Inventions Assignment Agreement, pursuant to 18 U.S.C. Section 1833(b), Employee shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.
12. Protection of Third Party Information. In Employee’s work for the Company, Employee will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom Employee has an obligation of confidentiality. Rather, Employee will be expected to use only that information which is generally known and used by persons with training and experience comparable to her own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. Employee agrees that Employee will not bring onto Company premises any unpublished documents or property belonging to any former employer or other person to whom Employee has an obligation of confidentiality. Employee hereby represents that she has disclosed to the Company any contract she has signed that may restrict her activities on behalf of the Company.

13. Return of Company Property. Upon the termination of Employee’s employment with the Company for any reason, Employee will return to the Company all Company documents (and all copies thereof) and other Company property within their possession, custody or control, including but not limited to Company files, notes, financial and operational information, customer lists and contact information, investor and finance source lists and contract information, product information, research and development information, drawings, records, plans, forecasts, reports, payroll information, spreadsheets, studies, analyses, compilations of data, proposals, agreements, sales and marketing information, personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including but not limited to computers, facsimile machines, mobile telephones, tablets, handheld devices and servers), credit cards, entry cards, identification badges and keys, and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part and in any medium). Employee shall deliver to the Company, upon request, a signed statement certifying compliance with this Section 13.

14. Exclusive Services. Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that may be assigned to Employee hereunder and shall devote substantially all of her productive time and efforts to the performance of such duties. Subject to the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to personal and family investments or serving on community and civic boards, or participating in industry associations, provided such activities do not interfere with the duties to the Company, as determined in good faith by the Board. Employee agrees that she will not join any boards, other than community and civic boards (which do not interfere with Employee’s duties to the Company), without the prior approval of the Company. The Company may require termination of Employee’s participation in other business or public activities if the Company, in its sole discretion, determines that such activities compromise or threaten to compromise the Company’s business interests or conflict with Employee’s duties to the Company. During Employee’s employment by the Company, except on behalf of the Company, Employee will not directly or indirectly serve as an officer, director, stockholder, employee, partner, proprietor, investor, joint venturer, associate, representative or consultant of any other person, corporation, firm, partnership or other entity whatsoever known by Employee to compete with the Company (or is planning or preparing to compete with the Company), anywhere in the world; provided, however, that Employee may purchase or otherwise acquire up to (but not more than) one percent (1%) of any class of securities of any enterprise (but without participating in the activities of such enterprise) if such securities are listed on any national or regional securities exchange. If the Board determines Employee is in breach of this Section 14, and provided such breach is not cured within thirty (30) days of written notification of such breach from the Board, then the Company may terminate Employee’s employment for Cause.

15. Dispute Resolution. To ensure the rapid and economical resolution of disputes that may arise in connection with Employee’s service or employment with the Company, Employee and the Company agree that any and all disputes, claims, or causes of action, in law or equity, including but not
limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, Employee’s service or employment with the Company, or the termination of such service or employment, shall be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in the city of the Company’s then principal place of business in the United States conducted by JAMS or its successor, under the then applicable JAMS Arbitration Rules and Procedures for Employment Disputes (available at http://www.jamsadr.com/rules-employment-arbitration/). Employee acknowledges that by agreeing to this arbitration procedure, she waives the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. Employee will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written statement signed by the arbitrator regarding the disposition of each claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator’s essential findings and conclusions on which the award is based. The arbitrator shall be authorized to award all relief that Employee or the Company would be entitled to seek in a court of law. The Company shall pay all JAMS arbitration fees in excess of the administrative fees that Employee would be required to pay if the dispute were decided in a court of law. The parties agree this arbitration agreement does not extend to claims for workers’ compensation or unemployment benefits, or any other claims, that Employee cannot, as a matter of applicable law, be required to arbitrate, nor does it preclude Employee from initiating a complaint before the Equal Employment Opportunity Commission or any other governmental agency, but if any such complaint is not resolved before the agency any action for money damages shall be submitted to arbitration pursuant to this paragraph. Nothing in this Agreement is intended to prevent any party from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration.

16. **Miscellaneous.** This Agreement, together with the Confidential Information and Inventions Assignment Agreement, forms the complete and exclusive statement governing Employee’s employment with the Company. It supersedes any other agreements or promises made to Employee by anyone, whether oral or written, including, without limitation, the Prior Agreement. Changes in the terms of Employee’s employment, other than those changes expressly reserved to the Company’s or the Board’s discretion in this Agreement, require a written modification approved by the Company and signed by a duly authorized officer of the Company. This Agreement will bind the heirs, personal representatives, successors and assigns of Employee and the Company, and inure to the benefit of Employee and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law. This Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. Any ambiguity in this Agreement shall not be construed against any party as the drafter. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and facsimile and electronic signatures shall be equivalent to original signatures.

17. **Definitions.** For purposes of this Agreement, the following terms shall have the following meanings:

(a) “**Cause**” shall mean the occurrence of any of the following events, in each instance that has a material adverse impact on the Company or any successor or affiliate thereof as determined by the Board in its reasonable discretion: (a) Employee’s conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) Employee’s commission of, or participation in, a fraud or act of dishonesty or other
illegal act against the Company; (c) Employee’s intentional, material violation of any contract or agreement between Employee and the Company or of any statutory duty owed to the Company; (d) Employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (e) gross misconduct; provided, that, with respect to (c) and (d) above, “Cause” will be triggered after Employee has received written notification of such failure from the Board, which, if curable, remains uncured after thirty (30) days written notice from the Board.

(b) “Change in Control” shall mean (a) a merger or consolidation of the Company with or into any other corporation or other entity or person, (b) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (c) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to such transaction acquires or holds capital stock of the Company representing a majority of the Company’s outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “Change in Control”: (i) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (ii) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (iii) an initial public offering of any of the Company’s securities; (iv) a reincorporation of the Company solely to change its jurisdiction; or (v) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held the Company’s securities immediately before such transaction. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any payment or benefit that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event for such payment or benefit, to the extent required by Section 409A.

(c) “Good Reason” shall mean any of the following actions taken without Cause by the Company or a successor corporation or entity without Employee’s consent: (a) material reduction of Employee’s base compensation, other than a reduction that applies generally to all similarly-situated personnel; (b) material reduction in Employee’s authority, duties or responsibilities, provided, however, that a change in Employee’s job position or title shall not be deemed a “material reduction” unless Employee’s new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities; or (c) relocation of the principal place at which Employee is required to provide services to the Company or Employee’s principal place of employment that results in an increase in Employee’s one-way driving distance by more than fifty (50) miles from Employee’s then current principal place of business or residence, as applicable. In order to resign for Good Reason, Employee must provide written notice of the event giving rise to Good Reason to the Company within ninety (90) days after the condition arises, allow the Company thirty (30) days to cure such condition, and if the Company fails to cure the condition within such period, then Employee’s resignation from all positions Employee then holds with the Company must be effective not later than ninety (90) days after the end of the Company’s cure period.

(d) “Separation from Service” shall mean a “separation from service” as such term is defined in Treasury Regulation Section 1.409A-1(h).
(e) **Stock Awards** shall mean means all stock options, restricted stock and such other awards granted pursuant to the Company’s stock option and equity incentive award plans or agreements and any shares of stock issued upon exercise thereof.

(Signature Page Follows)

Page 8
Sincerely,

ICOSAVAX, INC.

By: /s/ Adam K. Simpson  
Adam K. Simpson, Chief Executive Officer

ACKNOWLEDGED AND AGREED:

/s/ Cassia Cearley  
Cassia Cearley
August 15, 2019

Charles Richardson

Re: Employment Letter Agreement

Dear Charles:

In connection with the transactions contemplated by the Series A Preferred Stock Purchase Agreement, dated as of August 15, 2019, by and among the Company and the Purchasers named therein (the “Transaction”), we are amending and restating the terms of your position at Icosavax, Inc. (the “Company”), as previously set forth on that certain Consulting Agreement, dated January 1, 2018 (the “Prior Agreement”), by and between the Company and you (also referred herein as “Employee” and together, the “Parties”). Please note that this employment letter agreement (this “Agreement”) is contingent on the closing of the Transaction (the “Closing”), and shall become effective as of the Closing (the “Effective Date”). In the event the Closing does not occur on or before December 31, 2019, this Agreement shall have no force and effect and shall be null and void, and the Prior Agreement shall remain in effect. In consideration of the mutual promises herein contained, the Parties agree as follows:

1. Commencement of Employment. Employee’s employment with the Company will commence automatically immediately following the Effective Date.

2. Position. Employee will serve in the position of Senior Vice President, Technical Operations. Employee will report to the Company’s Chief Executive Officer (or interim Chief Executive Officer, if applicable), and shall be responsible for the duties customarily associated with this position and such other duties assigned by the Company. Employee will work at the Company’s facility located at Seattle, Washington. Of course, the Company may change Employee’s position, duties, and work location from time to time in its discretion. Employee will be employed on a full-time basis.


   a. Salary. Initially, Employee’s base salary will be $260,000.00 per year (the “Base Salary”), less payroll deductions and withholdings, paid on the Company’s normal payroll schedule.

   b. Benefits. During his employment, Employee will be eligible to participate in the standard benefits plans offered to similarly situated employees by the Company from time to time, subject to plan terms and generally applicable Company policies. A full description of these benefits will be available upon request. Employee will be eligible to accrue vacation or paid time off in accordance with the Company’s policies as in effect from time to time. The Company may change compensation and benefits from time to time in its discretion.

   c. Expenses. All reasonable business expenses that are documented by Employee and incurred in the ordinary course of business will be reimbursed in accordance with the Company’s standard policies and procedures.

4. Annual Bonus. Commencing with the calendar year in which the Effective Date occurs, Employee will be eligible to earn an annual performance bonus of up to thirty percent (30%) of Employee’s Base Salary rate (the “Annual Bonus”) for performance at “targeted” levels. The Annual
Bonus will be based upon an assessment by the Board of Directors of the Company (the "Board") of Employee's performance and the Company's attainment of written targeted goals set by the Board in its sole discretion. Bonus payments, if any, will be subject to applicable payroll deductions and withholdings. Following the close of each calendar year, the Board will determine whether Employee has earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and Employee must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus; except as provided in Section 7 below, no partial or prorated bonuses will be provided. The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

5. **Qualified Funding Event Bonus.** Upon the Effective Date, Employee shall be eligible to receive a one-time bonus equal to (a) (i) $32,500, divided by (ii) 365, multiplied by (b) the number of days elapsed from January 1, 2018 through and including the Effective Date, which bonus shall be paid to PharmorosConsulting LLC within ten (10) days following the Effective Date, less withholding taxes. In addition, Employee will receive an additional bonus in an amount equal to $93,306.45 which represents satisfaction in full of all compensation owed to Employee through the Effective Date under the Prior Agreement or otherwise, which bonus shall be paid to PharmorosConsulting LLC within ten (10) days following the Effective Date, less withholding taxes.

6. **At-Will Employment Relationship.** Employee may terminate his employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate Employee’s employment at any time, with or without cause or advance notice. Employee's employment at-will status can only be modified in a written agreement signed by Employee and by an officer of the Company.

7. **Severance Benefits.** If, at any time, the Company terminates Employee’s employment without Cause or Employee resigns for Good Reason (either such termination referred to as a “Qualifying Termination”), provided such termination or resignation also constitutes a Separation from Service (as defined below), then subject to Sections 9 and 10 below, Employee’s continued compliance with the terms of this Agreement (including without limitation Section 12 below) and Employee’s resignation from any and all positions Employee may hold with the Company, to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board), the Company will provide Employee with the following severance benefits (the “Severance Benefits”):

(a) **Cash Severance.** Upon a Qualifying Termination, the Company will pay Employee, as cash severance (i) six (6) months of Employee’s Base Salary in effect as of Employee’s Separation date, less applicable payroll deductions and withholdings; provided, however, in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Company will instead pay Employee twelve (12) months of Employee’s Base Salary in effect as of Employee’s Separation from Service date (either such amount, the "Base Severance"), plus (ii) in the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, a pro rata portion of Employee’s “target” Annual Bonus for the year in which Employee’s Qualifying Termination occurs based upon the amount of time Employee was employed by the Company during the year in which Employee’s Qualifying Termination occurs (the “Bonus Severance,” and with the “Base Severance,” the “Severance”).

Except in the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in installments in the form of continuation of Employee’s Base Salary payments, paid on the Company’s ordinary payroll dates, commencing on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date. The first such installment shall be for any accrued Base Salary.
for the sixty (60)-day period plus the period from the sixtieth (60th) day until the regular payroll date, if applicable. All salary continuation payments thereafter, if any, shall be made on the Company’s regular payroll dates.

In the case of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, the Base Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date.

Any Bonus Severance will be paid in a lump sum on the Company’s first regular payroll date that is more than sixty (60) days following Employee’s Separation from Service date, but in any event no later than March 15 of the year following the year in which Employee’s Separation from Service date occurs.

(b) COBRA Severance. As additional severance, in the event of Employee’s Qualifying Termination, the Company will continue to pay the cost of Employee’s health care coverage in effect at the time of Employee’s Separation from Service for the equivalent number of months as the Base Severance is paid (the “COBRA Coverage Period”), either under the Company’s regular health plan (if permitted) or by paying Employee’s COBRA premiums (the “COBRA Severance”). The Company’s obligation to pay the COBRA Severance on Employee’s behalf will cease if Employee obtains health care coverage from another source (e.g., a new employer or spouse’s benefit plan), unless otherwise prohibited by applicable law. Employee must notify the Company within two (2) weeks if Employee obtains coverage from a new source. This payment of COBRA Severance by the Company would not expand or extend the maximum period of COBRA coverage to which Employee would otherwise be entitled under applicable law. Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the foregoing COBRA Severance without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), or if the Company otherwise elects, in its sole discretion, the Company shall in lieu thereof provide to Employee a taxable monthly payment in an amount equal to the monthly COBRA premium that Employee would be required to pay to continue Employee’s group health coverage in effect on the date of Employee’s termination (which amount shall be based on the premium for the first month of COBRA coverage), which payments shall be made on the last day of each month regardless of whether Employee elects COBRA continuation coverage and shall end on the earlier of (x) the date upon which Employee obtains other coverage or (y) the last day of applicable COBRA Coverage Period.

(c) Accelerated Vesting. In the event of Employee’s Qualifying Termination before the closing of a Change in Control, such number of Employee’s then-unvested Stock Awards (as defined below) shall be deemed vested effective immediately prior to such termination as would have vested by their terms during the six (6) months following Employee’s date of termination had Employee remained employed by the Company during such period, provided that, (i) Employee complies with Sections 9 and 10 below, (ii) Employee continues to comply with the terms of this Agreement (including without limitation Section 12 below) and (iii) Employee resigns from any and all positions Employee holds with the Company, with such resignations to be effective no later than Employee’s Separation from Service date (or such other date requested or permitted by the Board). In the event of a Qualifying Termination that occurs within eighteen (18) months following the closing of a Change in Control, with respect to Employee’s then-unvested Stock Awards granted prior to the Effective Date (the “Existing Stock Awards”), all such Existing Stock Awards shall be deemed vested effective immediately prior to such termination. The foregoing accelerated vesting provisions are hereby referred to as “Accelerated Vesting” and are deemed to be a part of each Stock Award and to amend and supersede any provision in any agreement or plan regarding such Stock Award, even if such Accelerated Vesting provisions are less favorable. In the event of any conflict between the foregoing Accelerated Vesting provisions and the
terms of any Stock Award, including any Existing Stock Award, the Accelerated Vesting provisions shall apply. Notwithstanding the foregoing, any Stock Award granted after the Effective Date may be subject to additional accelerated vesting provisions in connection with a Change in Control, pursuant to the terms and conditions set forth in such Stock Award's applicable award agreement.

8. Resignation Without Good Reason; Termination for Cause; Death or Disability. If, at any time, Employee resigns his employment with the Company without Good Reason, or the Company terminates Employee’s employment for Cause, or Employee’s employment with the Company terminates for any reason not entitling Employee to the Severance Benefits or Accelerated Vesting pursuant to Section 7 above, including as a result of Employee’s death or disability, then Employee will receive his Base Salary accrued through the last day of employment. Under these circumstances, Employee will not be entitled to any other form of compensation from the Company, including any Severance Benefits or Accelerated Vesting, other than Employee’s rights to the vested portion of Employee’s Stock Awards and any other rights to which Employee is entitled under the Company’s benefit programs. In addition, Employee shall resign from any and all positions Employee holds with the Company, with such resignations to be effective no later than the date of Employee’s employment termination (or such other date requested or permitted by the Board).

9. Conditions to Receipt of Severance Benefits and Accelerated Vesting. Prior to and as a condition to Employee’s receipt of the Severance Benefits or Accelerated Vesting described above, Employee shall timely execute and deliver to the Company a release of claims in favor of and in a form acceptable to the Company (the “Release”) and allow the Release to become effective according to its terms (by not invoking any legal right to revoke it) within sixty (60) days following Employee’s Separation from Service date (such sixty (60) day period, the “Release Period”).

10. Compliance with Section 409A. It is intended that the Severance Benefits and Accelerated Vesting set forth in this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code (Section 409A, together with any state law of similar effect, “Section 409A”) provided under Treasury Regulations 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations 1.409A-2(b)(2)(iii)), Employee’s right to receive any installment payments under this Agreement (whether severance payments, reimbursements or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment. Notwithstanding any provision to the contrary in this Agreement, if the Company (or, if applicable, the successor entity thereto) determines that the Severance Benefits or Accelerated Vesting constitute “deferred compensation” under Section 409A and Employee is, on the date of Employee’s Separation from Service, a “specified employee” of the Company or any successor entity thereto, as such term is defined in Section 409A(a)(2)(B)(i) of the Code, then, solely to the extent necessary to avoid the incurrence of adverse personal tax consequences under Section 409A, the timing of the Severance Benefits and Accelerated Vesting shall be delayed until the earliest of: (a) the date that is six (6) months and one (1) day after Employee’s Separation from Service date, (b) the date of Employee’s death, or (c) such earlier date as permitted under Section 409A without the imposition of adverse taxation. Upon the first business day following the expiration of such applicable Code Section 409A(a)(2)(B)(i) period, all payments or benefits deferred pursuant to this Section 10 shall be paid in a lump sum or provided in full by the Company (or the successor entity thereto, as applicable), and any remaining payments due shall be paid as otherwise provided herein. No interest shall be due on any amounts so deferred. The Severance Benefits and Accelerated Vesting are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be interpreted accordingly. Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be
paid on or before the last day of Employee’s taxable year following the taxable year in which Employee incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Employee, and Employee’s right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

11. **Withholding Taxes.** All forms of compensation referred to in these Terms of Employment will be subject to reduction to reflect applicable withholding and payroll taxes.

12. **Compliance with Confidential Information and Inventions Agreement and Company Policies.** In the performance of services for the Company, Employee will be expected to abide by Company rules and policies. Employee and the Company have entered into a Confidential Information and Inventions Assignment Agreement attached hereto as Exhibit A which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. Employee agrees to perform each and every obligation of Employee therein contained. Notwithstanding the foregoing or in the Confidential Information and Inventions Assignment Agreement, pursuant to 18 U.S.C. Section 1833(b), Employee shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (a) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

13. **Protection of Third Party Information.** In Employee’s work for the Company, Employee will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom Employee has an obligation of confidentiality. Rather, Employee will be expected to use only that information which is generally known and used by persons with training and experience comparable to his own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. Employee agrees that Employee will not bring onto Company premises any unpublished documents or property belonging to any former employer or other person to whom Employee has an obligation of confidentiality. Employee hereby represents that he has disclosed to the Company any contract he has signed that may restrict his activities on behalf of the Company.

14. **Return of Company Property.** Upon the termination of Employee’s employment with the Company for any reason, as a precondition to the receipt of the Accelerated Vesting, within five (5) days after Employee’s Separation from Service date (or earlier if requested by the Company), Employee will return to the Company all Company documents (and all copies thereof) and other Company property within their possession, custody or control, including but not limited to Company files, notes, financial and operational information, customer lists and contact information, investor and finance source lists and contract information, product information, research and development information, drawings, records, plans, forecasts, reports, payroll information, spreadsheets, studies, analyses, compilations of data, proposals, agreements, sales and marketing information, personnel information, specifications, code, software, databases, computer-recorded information, tangible property and equipment (including but not limited to computers, facsimile machines, mobile telephones, tablets, handheld devices and servers), credit cards, entry cards, identification badges and keys, and any materials of any kind which contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part and in any medium). Employee shall deliver to the Board a signed statement certifying compliance with this Section 14 prior to the receipt of the Accelerated Vesting.

15. **Exclusive Services.** Employee shall at all times faithfully, industriously and to the best of Employee’s ability, experience and talent perform to the satisfaction of the Board all of the duties that
may be assigned to Employee hereunder and shall devote substantially all of his productive time and efforts to the performance of such duties. Subject to
the terms of the Confidential Information and Inventions Assignment Agreement, this shall not preclude Employee from devoting time to (i) performing
services (A) for the San Diego Zoo regarding vaccinations for wild animals and (B) regarding the NIH adjuvant BAA contract with the University of
Maryland for approximately five (5) hours per month, (ii) personal and family investments, (iii) serving on community and civic boards, or (iv) participating in industry associations, provided such activities do not interfere with the duties to the Company, as determined in good faith by the
Board. Employee agrees that he will not join any boards, other than community and civic boards (which do not interfere with Employee’s duties to the
Company), without the prior approval of the Board. The Board may require termination of Employee’s participation in other business or public activities
if the Board, in its sole discretion, determines that such activities compromise or threaten to compromise the Company’s business interests or conflict
with Employee’s duties to the Company. Except as otherwise provided in this Agreement, during Employee’s employment by the Company, except on
behalf of the Company, Employee will not directly or indirectly serve as an officer, director, stockholder, employee, partner, proprietor, investor, joint
venturer, associate, representative or consultant of any other person, corporation, firm, partnership or other entity whatsoever known by Employee to
compete with the Company (or is planning or preparing to compete with the Company), anywhere in the world; provided, however, that Employee may
purchase or otherwise acquire up to (but not more than) one percent (1%) of any class of securities of any enterprise (but without participating in the
activities of such enterprise) if such securities are listed on any national or regional securities exchange. If the Board determines Employee is in breach
of this Section 15, and provided such breach is not cured within thirty (30) days of written notification of such breach from the Board, then the Company
may terminate Employee’s employment for Cause.

16. Dispute Resolution. To ensure the rapid and economical resolution of disputes that may arise in connection with Employee’s service or
employment with the Company, Employee and the Company agree that any and all disputes, claims, or causes of action, in law or equity, including but
not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, Employee’s service
or employment with the Company, or the termination of such service or employment, shall be resolved, to the fullest extent permitted by law, by final,
binding and confidential arbitration in the city of the Company’s then principal place of business in the United States conducted by JAMS or its
successor, under the then applicable JAMS Arbitration Rules and Procedures for Employment Disputes (available at http://www.jamsadr.com/rules-employment-arbitration/). Employee acknowledges that by agreeing to this arbitration procedure, he waives the
right to resolve any such dispute through a trial by jury or judge or administrative proceeding. Employee will have the right to be represented by
legal counsel at any arbitration proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and
to award such relief as would otherwise be permitted by law; and (b) issue a written statement signed by the arbitrator regarding the disposition of each
claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator’s essential findings and conclusions on which the
award is based. The arbitrator shall be authorized to award all relief that Employee or the Company would be entitled to seek in a court of law. The
Company shall pay all JAMS arbitration fees in excess of the administrative fees that Employee would be required to pay if the dispute were decided in
a court of law. The parties agree this arbitration agreement does not extend to claims for workers’ compensation or unemployment benefits, or any other
claims, that Employee cannot, as a matter of applicable law, be required to arbitrate, nor does it preclude Employee from initiating a complaint before
the Equal Employment Opportunity Commission or any other governmental agency, but if any such complaint is not resolved before the agency any
action for money damages shall be submitted to arbitration pursuant to this paragraph. Nothing in this Agreement is intended to prevent any party from
obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration.
17. **Miscellaneous.** This Agreement, together with the Confidential Information and Inventions Assignment Agreement, forms the complete and exclusive statement governing Employee’s employment with the Company. It supersedes any other agreements or promises made to Employee by anyone, whether oral or written, including, without limitation, the Prior Agreement. Changes in the terms of Employee’s employment, other than those changes expressly reserved to the Company’s or the Board’s discretion in this Agreement, require a written modification approved by the Company and signed by a duly authorized officer of the Company. This Agreement will bind the heirs, personal representatives, successors and assigns of Employee and the Company, and inure to the benefit of Employee and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law. This Agreement shall be construed and enforced in accordance with the laws of the State of Washington without regard to conflicts of law principles. Any ambiguity in this Agreement shall not be construed against any party as the drafter. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and facsimile and electronic signatures shall be equivalent to original signatures.

18. **Definitions.** For purposes of this Agreement, the following terms shall have the following meanings:

(a) “**Cause**” shall mean the occurrence of any of the following events, in each instance that has a material adverse impact on the Company or any successor or affiliate thereof as determined by the Board in its reasonable discretion: (a) Employee’s conviction of, or plea of “guilty” or “no contest” to, any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) Employee’s commission of, or participation in, a fraud or act of dishonesty or other illegal act against the Company; (c) Employee’s intentional, material violation of any contract or agreement between Employee and the Company or of any statutory duty owed to the Company; (d) Employee’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (e) gross misconduct; provided, that, with respect to (c) and (d) above, “**Cause**” will be triggered after Employee has received written notification of such failure from the Board, which, if curable, remains uncured after thirty (30) days written notice from the Board.

(b) “**Change in Control**” shall mean (a) a merger or consolidation of the Company with or into any other corporation or other entity or person, (b) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of the Company’s assets, or (c) any other transaction, including the sale by the Company of new shares of its capital stock or a transfer of existing shares of capital stock of the Company, the result of which is that a third party that is not an affiliate of the Company or its stockholders (or a group of third parties not affiliated with the Company or its stockholders) immediately prior to such transaction acquires or holds capital stock of the Company representing a majority of the Company’s outstanding voting power immediately following such transaction; provided that the following events shall not constitute a “**Change in Control**": (i) a transaction (other than a sale of all or substantially all of the Company’s assets) in which the holders of the voting securities of the Company immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (ii) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of the Company’s assets to an affiliate of the Company; (iii) an initial public offering of any of the Company’s securities or any other transaction or series of related transactions principally for bona fide equity financing purposes; (iv) a reincorporation of the Company solely to change its jurisdiction; (v) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held the Company’s
securities immediately before such transaction; or (vi) a Qualified Funding Event. Notwithstanding the foregoing, if a Change in Control would give rise to a payment or settlement event with respect to any payment or benefit that constitutes “nonqualified deferred compensation,” the transaction or event constituting the Change in Control must also constitute a “change in control event” (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event for such Award, to the extent required by Section 409A.

(c) “Good Reason” shall mean any of the following actions taken without Cause by the Company or a successor corporation or entity without Employee’s consent: (a) material reduction of Employee’s base compensation, other than a reduction that applies generally to all similarly-situated personnel; (b) material reduction in Employee’s authority, duties or responsibilities, provided, however, that a change in job position (including a change in title) shall not be deemed a “material reduction” unless Employee’s new authority, duties or responsibilities are materially reduced from the prior authority, duties or responsibilities; or (c) relocation of the principal place of employment that results in an increase in Employee’s one-way driving distance by more than fifty (50) miles from Employee’s then current principal place of business or residence, as applicable. In order to resign for Good Reason, Employee must provide written notice of the event giving rise to Good Reason to the Company within ninety (90) days after the condition arises, allow the Company thirty (30) days to cure such condition, and if the Company fails to cure the condition within such period, then Employee’s resignation from all positions Employee then holds with the Company must be effective not later than ninety (90) days after the end of the Company’s cure period.

(d) “Qualified Funding Event” shall mean any of the following: (a) an equity financing with gross proceeds to the Company of at least $5,000,000.00 in which investors purchase any series of the Company’s Preferred Stock other than its Series 1 Preferred Stock; or (b) any option, phased acquisition, non-dilutive financing or similar transaction with gross proceeds to the Company of at least $5,000,000.00 granting a person or entity, or group of related persons or entities, the right to ultimately proceed with a Sale Transaction.

(e) “Sale Transaction” shall mean any of the following transactions: (a) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the shares of capital stock of the Company immediately prior to such consolidation, merger or reorganization, continue to represent a majority of the voting power of the surviving entity (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; (b) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company’s voting power is transferred, excluding any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof; or (c) any sale, lease, exclusive license or other disposition of the intellectual property or assets of the Company.

(f) “Separation from Service” shall mean a “separation from service” as such term is defined in Treasury Regulation Section 1.409A-1(h).

(g) “Stock Awards” shall mean means all stock options, restricted stock and such other awards granted pursuant to the Company’s stock option and equity incentive award plans or agreements and any shares of stock issued upon exercise thereof.

(Signature Page Follows)

Page 8
Sincerely,

ICOSAVAX, INC.

By: /s/ Adam K. Simpson
    Adam K. Simpson, Chief Executive Officer

ACKNOWLEDGED AND AGREED:

/s/ Charles Richardson
Charles Richardson
EXCLUSIVE LICENSE AGREEMENT

BETWEEN

ICOSAVAX, INC.

AND

UNIVERSITY OF WASHINGTON

FOR

COMPUTATIONALLY DESIGNED NANOPARTICLES AND VACCINES BASED UPON SUCH DESIGNS

UW COMOTION AGREEMENT REF. [***]
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EXCLUSIVE LICENSE AGREEMENT

This Exclusive License Agreement (this "Agreement"), effective as of the date of last signature (the "Effective Date"), is made and entered into between the University of Washington, a public institution of higher education and an agency of the state of Washington, ("University"), and Icosavax, Inc., a for profit corporation under the laws of Delaware ("Company").

BACKGROUND

A. Certain innovations relating to computationally designed two-component icosahedral protein nanoparticles; two-component tetrahedral protein nanoparticles; and methods of multivalent antigen presentation on designed protein nanomaterials were made in the University laboratory of Dr. David Baker, a faculty member in the Department of Biochemistry and an employee of the Howard Hughes Medical Institute ("HHMI"), and in the University laboratory of Dr. Neil King ("Principal Investigator"), who was a research associate in the Baker laboratory and now is a faculty member in the Department of Biochemistry. In addition, other inventions relating to nanoparticle vaccine candidates for respiratory syncytial virus were made via a collaboration by Drs. Baker and King working at University and the laboratory of Dr. Antonio Lanzavecchia at the Institute for Research In Biomedicine ("IRB"), located in Switzerland.

B. HHMI assigned its rights in such innovations to University, subject to the HHMI License (as defined herein). University now solely owns certain intellectual property rights in such innovations, and co-owns certain intellectual property rights in such innovations with IRB, as listed in Exhibit A “Start-Up License Schedule” to this Agreement. University and IRB have executed an interinstitutional agreement, dated September 19, 2017, that authorizes University to assume sole responsibility for both the patent prosecution and licensing of co-owned patent applications 47969.01US1/USSN 62/481,331. Thus, University has the right to license to others certain rights to use and practice such intellectual property. University is willing to grant those rights so that such innovations may be developed for use in the public interest.

C. Company desires that University grant it an exclusive license under such intellectual property rights, and University is willing to grant such a license, on the terms set forth in this Agreement. University desires Company to commercialize the intellectual property subject to this Agreement for commercial indications through Company and the exclusive license granted hereunder.

D. The innovations licensed under this Agreement were funded in part by the Bill and Melinda Gates Foundation ("BMGF") pursuant to those certain grant agreements between BMGF and University of Washington Foundation dated [***] entitled [***] and [***] entitled [***] ("BMGF Agreements") and pursuant to which University made certain global access commitments to BMGF.

E. Company intends to enter into one or more mutually agreeable sponsored research agreement(s) negotiated with University after the Effective Date for work on Indication Category(ies) to be done in the laboratory of Principal Investigator. Under such sponsored research agreement(s) Company shall have an option to negotiate to include inventions and/or know-how arising from such University activities under the sponsored research agreement where the inventors are not HHMI employees under the applicable
The Parties agree as follows:

1. **DEFINITIONS**

   "**Acquisition**" means (a) the sale by Company of all, or substantially all of, its assets in transaction to a Third Party at arm's length, (b) the sale, transfer, or exchange by the shareholders, partners, or equity owners of Company of a majority interest in Company's outstanding stock in an arm's length transaction to a Third Party, or (c) the merger of Company with a Third Party at arm's length; provided, however, that in no event will (y) any bona fide equity financing for the primary purpose of raising capital for corporate purposes, or (z) any license, or any option to obtain a license, relating to all or substantially all of Company's rights (whether such rights pertain to this Agreement or to Company's rights more generally) that is granted to a Third Party (whether or not collaborative or partnership activities also will be conducted), be considered an Acquisition under this Agreement. For the avoidance of doubt, the Parties agree that any license or option to obtain a license, as stipulated in (z) above, shall be considered a Sublicense if such license or option to obtain a license includes sublicensed rights under this Agreement.

   "**Acquisition Consideration**" means all consideration for an Acquisition (including, as an example only, any payment made to exercise an option to effect an Acquisition) for the first Acquisition to occur after the Effective Date (but does not include any consideration received for any subsequent Acquisition). Any Acquisition Consideration is expressly excluded from Sublicense Consideration.

   "**Combination Product**" means a product sold in a form containing a Licensed Product and at least one other product, component, or ingredient which could be sold separate and apart from the Licensed Product and which is not required for the function of the Licensed Product.

   "**Company Shares**" means the Shares or any securities convertible or exchangeable for Shares.

   "**Confidential Information**" means any information or materials of a Party not generally known to the public, including any information comprised of those materials and Company's business plans or reports. Confidential Information does not include any information that: (a) is, or becomes, part of the public domain through no fault of receiving Party; (b) is known to receiving Party prior to the disclosure by the disclosing Party, as evidenced by documentation; (c) is publicly released as authorized under this Agreement by University, its employees or agents; (d) is subsequently obtained on a non-confidential basis by receiving Party from a Third Party who is authorized to have and disclose such information; or (e) is independently developed by receiving Party without reliance on any portion of the Confidential Information received from the disclosing Party and without any breach of this Agreement as evidenced by documentation.

   "**Developing Countries**" means the list of countries set forth on Exhibit C.

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UW CoMotion Ref. [***]
“Distributor” means a distributor, reseller or OEM to which a Licensed Party sells a Licensed Product for resale of Licensed Product by the Distributor, and where Distributor has no other rights with respect to the Licensed Rights other than to resell or otherwise distribute Licensed Products (including but not limited to integrated or bundled with other products or services), and for which resale or distribution such Licensed Party receives no further consideration (including but not limited to royalties and/or commissions) beyond the price for the initial sale of Licensed Product to the Distributor.

“Event of Force Majeure” means an unforeseeable act that prevents or delays a Party from performing one or more of its duties under this Agreement and that is outside of the reasonable control of the affected Party. An Event of Force Majeure includes acts of war or of nature, insurrection and riot, and labor strikes. An Event of Force Majeure does not include a Party’s inability to obtain a Third Party’s consent to any act or omission, unless the inability was caused by a separate Event of Force Majeure.

“Fair Market Value” means the average price at which the stock in question is publicly trading for twenty (20) days prior to the announcement of its purchase by the Sublicensee(s), or, if the stock is not publicly traded, the value of such stock as determined in good faith by the board of directors of Company or Sublicensee.

“Field of Use” means prophylactic and/or therapeutic treatments in a defined “Indication Category”, specifically: for (i) respiratory syncytial virus (“RSV”) (the “First Indication Category”), (ii) [***] (the “Second Indication Category”), (iii) [***] (the “Third Indication Category”), (iv) [***] (the “Fourth Indication Category”), and (v) [***] (the “Fifth Indication Category”). These viruses, bacteria and pathogens listed within each Indication Category represent a preliminary indication of Company’s priorities and targeted indications within the broad category of commercially attractive vaccines. Accordingly, University grants Company the right, from time to time, to re-order the priority of, and/or substitute a new replacement virus, bacteria and/or pathogen for any of the Indication Categories above by written notice to University (“Updated Indication Designation”) designating the new order of Indication Category(ies) and/or potential substitution (i.e., deletion of current and replacement with new) virus, bacteria and/or pathogen, subject to then-current availability (i.e., not exclusively licensed to a Third Party) of the replacement virus, bacteria and/or pathogen (as applicable) and University’s willingness to license such rights. Parties agree that such Updated Indication Designation(s) shall be captured in a written amendment per Section 13.1 “Amendment and Waiver”.

“Fully-Diluted Shares” means the total number of Shares issued and outstanding or reserved for issuance assuming the exercise or conversion of all securities convertible into Shares.

“Improvements” means patentable inventions that (a) are owned by University after the Effective Date and not encumbered by third party rights that would prevent delivery to Company, (b) would require a license under the exclusively Licensed Rights to practice, (c) were developed in the laboratory of the Principal Investigator, and identified to UW CoMotion as Improvements falling under this license, and (d) do not include an HHMI employee as an inventor under the applicable patent law.

“Licensed Know-How” means University knowledge or intangible work that: (a) was developed in the laboratory of Principal Investigator, (b) exists as of the Effective Date, (c) is relevant to utilizing any of the Licensed Patents, (d) is unpublished, (e) is not subject to patent or copyright protection, and (f) is not covered by Third Party rights that would prevent delivery to Company.
“Licensed Party” mean Company or any of its Sublicensees.

“Licensed Patents” means (a) the patents and patent applications listed in Exhibit A1.1 “Licensed Patents”, all (b) divisions, continuations, and claims in continuations-in-part that are entitled to claim priority to, or that share a common priority claim with, and are directed to subject matter specifically described in, any item listed on Exhibit A1.1 “Licensed Patents”; (c) claims of extensions, renewals, substitutes, re-examinations and re-issues of any of the items in (a) or (b) that are directed to subject matter specifically described in any items listed on Exhibit A1.1; and (d) claims of foreign counterparts of any of the items in (a), (b), or (c) that are directed to subject matter specifically described in any items listed on Exhibit A1.1, wherever and whenever filed.

“Licensed Product” means any method, process, composition, product, service, or component part thereof that would, but for the granting of the rights set forth in this Agreement, infringe a Valid Claim contained in the Licensed Patents.

“Licensed Rights” means all rights granted to Company under Article 2 “License Grant” of this Agreement.

“Net Sales” means the gross amount received by a Licensed Party from Distributors, customers, end users and other Third Parties for sales, leases, and other dispositions of Licensed Products, less [***]. On sales of Licensed Products by made in other than an arm's length transaction, the value of the Net Sales attributed to such transaction will be equal to the Net Sales that would have been received in an arm's length transaction, based on sales of like quantity and quality of Licensed Products sold on or about the time of the transaction. Net Sales does not include sale, lease, disposition or other transfer of Licensed Products among or between Company, Subsidiaries and Sublicensees for the purpose of subsequent resale to a Third Party, but does include subsequent resale to such Third Party. For avoidance of doubt Net Sales are calculated on sales by a Licensed Party to Distributor, and not on the subsequent sale by Distributor.

Net Sales of Combination Products will be calculated by multiplying actual Net Sales of such Combination Products by the fraction A/(A+B), where “A” is the Net Sales price of the Licensed Product if sold or performed separately, and “B” is the Net Sales price of the other product, component or ingredient in the Combination Product if sold separately. If, on a country-by-country basis, the other product, component or ingredient in the Combination Product is not sold separately in said country, Net Sales for the purpose of determining running royalties of the Combination Product shall be calculated by multiplying actual Net Sales of the Combination Product by the fraction A/C where “A” is the Net Sales price of the Licensed Product, if sold separately, and “C” is the Net Sales price of the Combination Product. If, on a country-by-country basis, neither the Licensed Product, nor the other product, component or ingredient in the Combination Product, is sold separately in said country, Net Sales for the purpose of determining running royalties of the Combination Product shall be determined in good faith by the Parties. A Combination Product may include a Licensed Product and any separate product, component or ingredient or service developed by or in-licensed by a Licensed Party from a Third Party provided it is a Combination Product as defined in this Agreement.

“New Patent Applications” means patents and patent applications which claim Improvements and that the Company elects under Section 2.4 “Improvements” to include in the Licensed Patents.

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“Parties” means University and Company and “Party” means either University or Company.

“Patent Expenses” means all reasonable costs (including attorneys’ and application fees) incurred by University in accordance with this Agreement to apply for, prosecute and maintain Licensed Patents, including but not limited to the costs of interferences, oppositions, inter partes review and re-examinations. Costs for interferences, oppositions, inter partes review, re-examinations and other complex and expensive patent-related proceedings will be incurred in consultation with Company, pursuant to the processes of Article 4 “Applications and Patents”. Patent Expenses also include reimbursement for in-house costs to apply for, prosecute and maintain Licensed Patents; provided they are for activities that would otherwise have been performed by outside counsel at an equal or greater expense.

“Performance Milestone” means any of the milestones described in Section A2 “Performance Milestones” of attached Exhibit A “Start-Up License Schedule”.

“Performance Milestone Date” means the date by which a Performance Milestone is to be achieved as set forth in Section A2 “Performance Milestones” of attached Exhibit A “Start-Up License Schedule”, as such date may be extended pursuant to Section 5.1 “Performance Milestones” or as otherwise agreed upon by the Parties.

“Permitted Sublicense” means any arm’s length agreement with a Third Party manufacturer, contract research organization or contract researcher/developer with whom a Licensed Party contracts for manufacture, research or development of Licensed Products on Licensed Party’s behalf, and where such Third Party has no other rights with respect to the Licensed Rights other than to manufacture, research or develop on behalf of Licensed Party.

“Permitted Sublicensee” means a Third Party holding a Permitted Sublicense.

“Qualified Financing” means one or more offerings of equity securities (whether common or preferred stock, options, warrants or notes convertible into common stock) issued for cash (or cash equivalents), the aggregate proceeds of which equals or exceeds the Qualified Offering Proceeds; provided that a Qualified Financing refers solely to the first offering (or offerings) in which the Company raises the Qualified Offering Proceeds, whether occurring prior to, concurrent with or subsequent to the Effective Date.

“Qualified Offering Proceeds” means [***].

“Sales Report” means a report in substantially the form set forth in Exhibit B “Royalty Report Form”.

“Securities Act” means the Securities Act of 1933, as amended, and rules and regulations promulgated thereunder.

“Shares” means shares of the Company’s common stock.

“Sublicense” means the grant by a Licensed Party to a Third Party of any license, option, first right to negotiate, or other right granted under the Licensed Rights, in whole or in part. The grant of the right to resell to a Distributor and the grant of a license or other right to use a Licensed Product to an end-user, where the end user has no other rights with respect to the Licensed Rights other than to be an end user of the Licensed Product, will not be a Sublicense and will be treated solely under Net Sales.

“Sublicensee” means a Third Party holding a Sublicense under the Licensed Rights.

“Sublicense Consideration” means all consideration, including but not limited to [***]; but excluding [***] For avoidance of doubt, consideration paid to Company by Sublicensees for the following shall not be deemed Sublicense Consideration: [***]. For clarity, University acknowledges and agrees that, if Company should enter into an agreement with a Third Party that includes a Sublicense as part, but not all, of the subject matter of such agreement, then the total non-royalty consideration paid to Company under such Third Party agreement will not be deemed Sublicense Consideration merely because a Sublicense is granted (since only a portion of the consideration received is for the grant of the Sublicense).

Furthermore, to the extent that: (1) this Agreement has not been assigned by Company prior to the date Sublicense Consideration is received by Company; and (2) Company has not raised more than [***] in equity financing prior to the date Sublicense Consideration is received by Company, amounts received by Company from a Third Party for [***]. shall be excluded from Sublicense Consideration, as stipulated in the paragraph above in (a)(ii). Company will provide to University a copy of the [***] together with a copy of the executed Sublicense as required by Section 2.3 “Sublicense Rights”.

“Territory” means worldwide.

“Third Party” means an individual or entity other than University and Company.

“Valid Claim” means (a) a claim in an issued, unexpired United States or granted foreign patent included in the Licensed Patents that: (i) has not been held invalid, unpatentable, or unenforceable by a decision of a court or other governmental agency of competent jurisdiction and not subject to appeal (ii) has not been admitted to be invalid or unenforceable through reissue, inter partes review, disclaimer, or otherwise, (iii) has not been lost through an interference, reexamination, or reissue proceeding; or (b) a pending claim of a pending patent application included in the Licensed Patents.

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Additional Definitions. The following terms have the meanings set forth in the corresponding sections of this Agreement, as described below.

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2. LICENSE GRANT. Subject to the terms and conditions of this Agreement:

2.1 Patent License. University hereby grants to Company an exclusive (subject only to any rights of the government described in Section 2.6 “The United States Government’s Rights” and to rights of University described in Article 3 “Rights of University; Limitations” and to rights of HHMI described in Section 2.8 “HHMI Research Use Rights”) license under the Licensed Patents to make, have made on Company’s behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the Territory in the Field of Use. Unless otherwise terminated under Article 9 “Termination”, the term of this patent license will begin on the Effective Date and will continue until all...
Valid Claims expire or are held invalid or unenforceable by a court of competent jurisdiction from which no appeal can be taken.

2.2 **Know-How License.** University hereby grants to Company a non-exclusive, worldwide license to use Licensed Know-How. Unless otherwise terminated under Article 9 “Termination”, the term of this license will begin on the Effective Date and will continue until all rights under Licensed Patents are terminated.

2.3 **Sublicense Rights.** Company has the right, exercisable during the term of this Agreement, to Sublicense its Licensed Rights under this Agreement. Company may not grant Sublicensees the right to enforce Licensed Rights. Company will remain responsible for its obligations under this Agreement. Except for Permitted Sublicensees, Company will ensure that the Sublicense agreement: (a) contains terms and conditions that require Sublicensee to comply with the terms and conditions of this Agreement applicable to Sublicensees, including a release substantially similar to that provided by Company in Section 10.1 “Company’s Release”; a warranty substantially similar to that provided by Company in Section 11.1 “Authority”; University disclaimers and exclusions of warranties under Sections 11.3 and 11.4 “No Known Infringement” and “Disclaimer”; and limitations of remedies and damages substantially similar to those provided by Company in Sections 12.1 “Remedy Limitation” and 12.2 “Damage Cap”; (b) specifically incorporates provisions of this Agreement regarding obligations pertaining to indemnification, use of names and insurance. Each Sublicense agreement must also contain obligations, terms and conditions in favor of HHMI or the HHMI Indemnitees, as applicable, that are substantially similar to those undertaken by Company in favor of HHMI or the HHMI Indemnitees, as applicable, under this Agreement and intended for the protection of the HHMI Indemnitees, including, without limitation, the obligations, terms and conditions regarding indemnification, insurance and HHMI’s third party beneficiary status. Company will provide University with a copy of the executed Sublicense, excluding any Permitted Sublicense agreement, within thirty (30) days after its execution. Company will not enter into any Sublicense agreement if the terms of such agreement are inconsistent in any material respect with the material terms of this Agreement. Any Sublicense made in violation of this Section 2.3 “Sublicense Rights” will be void and will constitute an event of default that requires remedy under Section 9.2 “Termination by University”.

2.4 **Improvements.** For a period of [***] months after the Effective Date, University will provide reasonable written notice to Company of any Improvements to the Licensed Patents. Company will have the option, exercisable within ninety (90) days of receipt of University’s notice of such Improvement, to add such Improvements to the Licensed Patents. If Company exercises its option to add Improvements to the Licensed Patents, the Licensed Patents thereafter will include the applicable New Patent Applications, and the Parties will revise Exhibit A “Start-Up License Schedule” to include such Improvements.

2.5 **Limitation of Rights.** No provision of this Agreement grants to Company, by implication, estoppel or otherwise, any rights other than the rights expressly granted it in this Agreement under the Licensed Rights, including any license rights under any other University-owned or IRB-owned technology, copyright, know-how, patent applications, or patents, or any ownership rights in the Licensed Rights.

2.6 **The United States Government’s Rights.** Inventions covered in the Licensed Patents arose, in whole or in part, from federally supported research and the federal government of the United States of America has certain rights in and to such inventions as those rights are described in Chapter 18, Title 35.

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of the United States Code and accompanying regulations, including Part 401, Chapter 37 of the Code of Federal Regulation. The Parties' rights and obligations under this Agreement to any government-funded inventions, including the grant of license set forth in Section 2.1 “Patent License”, are subject to the applicable terms of the aforementioned United States laws. The U.S. Government is entitled, as a right, under these Chapters: (a) to a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on the behalf of the U.S. Government any of the federally funded inventions throughout the world and (b) to exercise march in rights on the federally funded inventions. Company further agrees that, to the extent required by Title 35 Section 204 of the United States Code, it will substantially manufacture in the United States of America all products embodying or produced through the use of any such federally funded invention.

2.7 Rights to Wholly Owned Subsidiaries of Company. Company may extend rights granted to Company under this Agreement to wholly owned subsidiaries (“Subsidiaries”) of Company, provided that (a) Company is responsible for all acts of such Subsidiaries as if they were acts of the Company, (b) such Subsidiary is bound in writing to perform all obligations to University and HHMI of this Agreement other than making payments pursuant to Article 6 “Payments, Reimbursements, Reports, and Records”, as if such Subsidiary were Company, and (c) Company reports to University pursuant to Section 13.10 “Notices” that such Subsidiary will be exercising rights under this Agreement prior to such Subsidiary exercising any such rights under this Agreement. For avoidance of doubt, Company may perform any obligation of Subsidiary on Subsidiary’s behalf.

2.8 HHMI Research Use Rights. Company acknowledges that it has been informed that the Licensed Patents were developed, at least in part, by employees of HHMI and that HHMI has a paid-up, non-exclusive, irrevocable license to exercise any intellectual property rights with respect to the Licensed Patents for research purposes, with the right to sublicense to non-profit and governmental entities, but with no other rights to assign or sublicense (the “HHMI License”). This license is explicitly made subject to the HHMI License.

3. Rights of University; Limitations

3.1 University's Rights. University reserves all rights not expressly granted to Company under this Agreement. University retains for itself, IRB, and other not-for-profit research institutions, an irrevocable, nonexclusive right to practice Licensed Rights for research, instructional or educational purposes. Expressly included, without limitation, within this University reservation of rights is the right to do the following in connection with such research, instructional or educational purposes: (a) to use the Licensed Rights in sponsored research or collaborative research with any Third Party, but not for any commercial purpose, and only to the extent that no such Third Party is granted any commercialization rights of any kind under the Licensed Rights or to commercialize Licensed Products, (b) to grant material transfer agreements that restrict the use of such materials to research, teaching or other scholarly activities, and that the transferree has no rights greater than University or IRB, and has no further right to transfer such materials to any Third Party, and (c) to publish any information included in the Licensed Rights or any other information that may result from University’s or IRB’s research.

3.2 Sublicensing Opportunities. If a Third Party notifies University that it wishes to license any of the exclusively licensed Licensed Rights in any field or territory in which Company is unable or unwilling to develop and market a Licensed Product or for any field within the Field of Use that University reasonably
believes Company is not diligently pursuing. University will notify Company in writing of such Third Party's wish to obtain such license, and Company will have good faith discussions with such Third Party regarding the terms and conditions under which such sublicense could be obtained. Company will not be obligated to provide such sublicense where it interferes with Company's business strategy; however, Company will not unreasonably withhold such sublicense.

3.3 Reservation of Rights for Humanitarian Purposes. Consistent with 35 U.S.C. §200 et seq., University retains the right to require Company to grant sublicenses to responsible applicants in the Field of Use under the Licensed Patents on terms that are reasonable under the circumstances; or, if Company fails to grant a license, to grant the license itself. The exercise of these rights by University will only be in exceptional circumstances and only if University determines (a) the action is necessary to meet health or safety needs that are not reasonably satisfied by Company; or (b) the action is necessary to meet requirements for public use specified by federal regulations, and such requirements are not reasonably satisfied by Company. In addition, University retains the right to require Company to grant sublicenses in the Field of Use under the Licensed Patents on terms that are reasonable under the circumstances solely to allow the Licensed Products to be available and accessible at an affordable price in Developing Countries, or, if Company fails to offer to grant a license on reasonable terms, to grant the license itself to University under the BMGF Agreements in connection with funding of research that led to the Licensed Patents and such obligations are not reasonably satisfied by Company. University will not require the granting of a sublicense, and will not grant the license itself, unless the responsible applicant has first negotiated in good faith with Company. Company shall be entitled to use the dispute resolution mechanisms of Section 13.4 “Escalation; Dispute Resolution”, including seeking an injunction from the court if mediation is unsuccessful, if Company wishes to dispute that University should be entitled to exercise its rights under this Section 3.3.

4. APPLICATIONS AND PATENTS

4.1 Pre-Agreement Patent Filings. Company has reviewed the Licensed Patents and as of the Effective Date is not aware of any basis to challenge or dispute the inventorship, validity, or enforceability of any of the claims made in the Licensed Patents.

4.2 Patent Prosecution Decisions. University and Company will consult on the preparation, filing and prosecution of the Licensed Patents (including, without limitation, on the selection of patent counsel). Patent counsel will be directed to deliver to Company all written and electronic communications to and from all patent offices and foreign counsel, and provide summaries of oral communications with patent offices. Provided Company is in compliance with Section A3.8 “Patent Expense Payment” of Exhibit A “Start-Up License Schedule”, Company’s directions regarding patent preparation, filing and prosecution will be followed unless detrimental to University’s intellectual property rights. University and Company will consult prior to deciding in which countries to pursue patent protection and provided Company is in compliance with Section A3.8 “Patent Expense Payment”, patents will be filed in all countries Company designates. University acknowledges the key role and value of the Licensed Patent portfolio to Company and the need for timely review and exchange of information between University and Company prior to Licensed Patent portfolio decisions. University will remain the client of record, and may at its own expense instruct patent counsel to take actions necessary to protect University’s intellectual property rights, if in University’s reasonable opinion, Company actions will result in a loss of rights; provided that for any such actions, if Company declines to reimburse University pursuant to Section A3.8 “Patent Expense Payment”.

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of Exhibit A “Start-Up License Schedule”, those applications and resultant patents will not be subject to this Agreement. In no event will Company file a patent application where all of the inventors are under University policy obligated to assign their rights in such patent application to University.

4.3 **Assumption of Patent Prosecution and Maintenance.** Provided Company is in compliance with Section A3.8 “Patent Expense Payment” of Exhibit A “Start-Up License Schedule”, University will take all commercially reasonable steps to cause patents and patent applications within the Licensed Patents to be diligently prosecuted and maintained. If Company is in compliance, and University, against Company's instructions, decides to abandon or allow to lapse any patent application or any claim of any patent included in the Licensed Patents or not pursue patent protection for any foreign patent mutually agreed upon by the Parties under Section 4.2 “Patent Prosecution Decisions”, University will notify Company at least sixty (60) days before such decision would be effective, and Company will have the right to file, prosecute, and maintain, as applicable, such patent or patent application at Company's expense provided Company shall keep University informed of such activity. Company may thereafter abandon or allow to lapse any or all patents or patent applications for which it is responsible. Company will notify University of any abandoned or lapsed patents within thirty (30) days of such abandonment or lapse.

5. **COMMERCIALIZATION**

5.1 **Performance Milestones.** Company will, directly or through its Subsidiaries or Sublicensees, use its commercially reasonable efforts, consistent with sound and reasonable business practices and judgment, to commercialize the Licensed Rights and to make and sell Licensed Products as soon as practicable and to maximize sales thereof. Unless an extension is provided due to an Event of Force Majeure during the term of this Agreement, Company shall perform, or shall cause to happen or be performed, the Performance Milestones in accordance with the Performance Milestone Dates. Upon the occurrence of an Event of Force Majeure, the Performance Milestones and Performance Milestone Dates shall be equitably adjusted to accommodate the Event of Force Majeure.

5.2 **Renegotiation of Performance Milestones.** If Company determines that it will be unable to achieve a Performance Milestone for a given Indication Category by the applicable Performance Milestone Date, Company will so notify University in advance of the Performance Milestone Date, and, provided Company demonstrates it is diligently pursuing commercialization of at least one Licensed Product for such Indication Category, Company shall have the option of either (1) negotiating in good faith an appropriate new Performance Milestone and/or related Performance Milestone Date to accommodate for the reasonable length of the delay or (2) paying a fee to the University equal to [***] of the next due Financial Milestone payment for a one year of extension to all Performance Milestone Dates (not yet met) for such Indication Category. A subsequent payment of another [***] of the next due Financial Milestone payment to add another one year extension to all Performance Milestone Dates (not yet met) for such Indication Category will be granted by University but no further extensions shall be (automatically) granted under this payment mechanism. If in the case of (1) above, the Parties are unable to agree on a renegotiated Performance Milestone [***], then University may proceed with its termination rights under Section 9.2 “Termination by University”, subject to both Company and University having the right to seek mediation under Section 13.4 “Escalation; Dispute Resolution”. For the avoidance of doubt, University's termination rights shall be on an Indication Category by Indication Category basis (e.g., any failure to achieve a Performance Milestone by the applicable Performance Milestone Date for one Indication

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Category shall not result in termination of another Indication Category that is in compliance with its Performance Milestones).

5.3 **Commercialization Reports.** Throughout the term of this Agreement and during the Sell-Off Period, and within thirty (30) days of December 31st of each year, Company will deliver to University written reports of Company’s and Sublicensees’ efforts and plans to develop and commercialize the innovations covered by the Licensed Rights and to make and sell Licensed Products. Company will have no obligation to prepare commercialization reports in years where (a) Company delivers to University a written Sales Report with active sales, and (b) Company has fulfilled all Performance Milestones. In relation to each of the Performance Milestones each commercialization report will include sufficient information to demonstrate achievement of those Performance Milestones and will set out timeframes and plans for achieving those Performance Milestones which have not yet been met.

5.4 **Company Information.** Once per year, until University no longer has Shares in Company, Company shall provide a current capitalization chart to indicate the number of Shares University owns in Company, and total number of Shares and Fully Diluted Shares. Throughout the term of this Agreement, Company shall provide the names of, and sufficient contact information to identify, any Permitted Sublicensees within thirty (30) days of University’s written request. Upon University’s inquiry, Company will provide information on funding rounds to date (type, date, and amount) and number of employees.

6. **PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS**

6.1 **Payments.** Company will deliver to University the payments specified in Section A3 “Payments” of attached Exhibit A “Start-Up License Schedule”. Company will make such payments by check, wire transfer, or any other mutually agreed-upon and generally accepted method of payment. All checks to University will be made payable to “University of Washington” and will be mailed to the address specified in Section 13.10 “Notices” and will reference the University agreement number [***].

All wire or electronic fund transfers must be confirmed via email referencing the above agreement number to: ipfin@uw.edu

Wire transfers:  
Electronic Fund Transfer (ACH):

[***]

6.2 **Currency and Checks.** All computations and payments made under this Agreement will be in United States dollars. The exchange rate for the currency into dollars as reported in *The Wall Street Journal* as the New York foreign exchange mid-range rate on the last business day of the month in which the transaction was entered into will be used for determining the dollar value of transactions conducted in non-United States dollar currencies.

6.3 **Late Payments.** University may charge Company a late fee for all amounts owed to University that are more than thirty (30) days overdue; provided that, for any portion of any such amount that is the subject of a bona fide, good faith dispute by Company (the mechanism of such dispute governed by Section 13.4 “Escalation; Dispute Resolution”), the late fee shall not apply to such disputed portion unless and until the dispute is decided in University’s favor. The late fee will be computed as the [***].
compounded monthly, as set forth by The Wall Street Journal (Western edition) on the date on which the payment is due, of the outstanding, unpaid balance. The payment of a late fee will not foreclose or limit University from exercising any other rights it may have as a consequence of the lateness of any payment.

6.4 **Sales Reports.** Within sixty (60) days after the last day of each calendar quarter commencing the calendar quarter after the Company effects its first commercial sale of a Licensed Product and during the term of this Agreement and the Sell-Off Period, Company will deliver to University the Sales Report setting forth the number of and Net Sales amount (expressed in U. S. dollars) of all sales, leases, or other dispositions of Licensed Products, whether made by Company or a Sublicensee, during such calendar quarter. Included in each sales report will be the name of each Distributor, and the number and type of Licensed Product sold, leased, or otherwise provided to such Distributor. After the first commercial sale of a Licensed Product in the Territory, Company will deliver a written Sales Report to University even if Company is not required hereunder to pay to University a royalty payment during the calendar quarter. Company shall provide the names of Permitted Sublicensees within thirty (30) days at University’s written request.

6.5 **Books and Records.** Throughout the term of this Agreement and for [***] years thereafter, Company, at its expense, will keep and maintain and shall cause each Sublicensee other than Permitted Sublicensees to keep and maintain complete and accurate records of all sales, leases, and other dispositions of Licensed Products and all other records related to this Agreement.

6.5.1 **Audit Rights.** Company will permit at the request of University (not to be made more than once in any given calendar year), one or more independent, certified accountants selected by University and reasonably acceptable to Company (which acceptance shall not be unreasonably withheld or delayed) (“Accountants”) to have access to Company’s records and books of account pertaining to calculation of Net Sales and payment of any other amounts owed under this Agreement. Accountants’ access will be during ordinary working hours to audit Company’s records for any payment period ending prior to such request, the correctness of any Sales Report or payment made under this Agreement, or to obtain information as to the payments due for any period in the case of failure of Company to report or make payment under the terms of this Agreement or to verify Company’s compliance with its payment obligations hereunder. Accountants will sign Company’s standard non-disclosure agreement provided it is reasonable to the industry in which Company operates. Company shall cause each Sublicensee, other than Permitted Sublicensees, that manufactures, sells, leases, or otherwise disposes of Licensed Products on behalf of Company to grant University the rights to inspect and audit Sublicensee’s records.

6.5.2 **Scope of Disclosure.** Accountants will not disclose to University any information relating to the business of Company except that which is necessary to inform University of: (a) the accuracy or inaccuracy of Company’s Sales Reports and payments; (b) compliance or noncompliance by Company with the terms and conditions of this Agreement; or (c) the extent of any inaccuracy or noncompliance. A copy of the Accountants’ report will be provided to Company.

6.5.3 **Accountant Copies.** If Accountants believe there is an inaccuracy in any of Company’s payments or noncompliance by Company with any terms and conditions, Accountants will have
the right to make and retain copies (including photocopies) of any pertinent portions of the records and books of account.

6.5.4 **Costs of Audit.** If Company's payments calculated for any calendar quarter are under-reported by more than [***], the costs of any audit and review initiated by University will be borne by Company; otherwise, University shall bear the costs of any audit initiated by University.

7. **INFRINGEMENT**

7.1 **Notice of Third Party's Infringement.** If a Party learns of substantial, credible evidence that a Third Party is infringing exclusively Licensed Rights, that Party will promptly deliver written notice of the possible infringement to the other Party, describing in detail all relevant information to which that Party has access or control suggesting infringement of the exclusively Licensed Rights.

7.2 **Company's Right to Enforce.** During the term of this Agreement, Company has the first right to respond to, defend, and prosecute in its own name, and at its own expense, actions or suits relating to the exclusively Licensed Rights. University may request in writing that Company take action against known infringer. If required by law or otherwise legally necessary for such action to proceed, Company may request that University be joined as a party plaintiff and University will consider such request in good faith, such request not to be unreasonably denied, provided that (a) Company must notify University at least ten (10) days before filing suit, and (b) Company will reimburse University for all reasonable legal fees and costs incurred by University in connection with such action. Company will not settle any suits or actions in any manner relating to the Licensed Rights that is detrimental to the University or to the scope or validity of Licensed Rights, without obtaining the prior written consent of University, which consent shall not be unreasonably withheld or delayed.

7.3 **Distributions.** Out of any Sublicense fees, royalties, damages, awards, or settlement proceeds from any settlement or judgment for infringement of Licensed Rights, Company is allowed to first recover its reasonable attorney’s fees and other out-of-pocket expenses directly related to any action, suit, or settlement for infringement of the Licensed Rights. Any payment by an alleged infringer that, under the terms of the applicable settlement agreement or judgment, (a) constitutes consideration for Net Sales of infringing product (or an equivalent characterization in the nature of a product royalty) will be handled according to the payment provisions in Section A3.2 “Running Royalty Payments”, and (b) constitutes consideration for the grant of a Sublicense (or an equivalent characterization) will be handled according to Section A3.6 “Sublicense Consideration”. Any remaining proceeds will be distributed [***] to Company and [***] to University.

7.4 **Limitation on Infringement Actions.** Excluded from the rights granted herein is the right to bring an infringement action against a not-for-profit entity for infringement of the License Rights in carrying out not-for-profit research.

7.5 **University Right to Institute Action.** If Company fails, within [***] of receiving of the University’s written request to take action against an alleged infringer of exclusively Licensed Rights, to secure cessation of the infringement, institute suit against the infringer, or to provide to University satisfactory evidence that Company is engaged in bona fide negotiations for the acceptance by infringer of a Sublicense to the relevant Licensed Rights, then University may, upon written notice to Company, assume
full right and responsibility to secure cessation of the infringement or institute suit against the infringer, or secure acceptance of a Sublicensee by Company from the alleged infringer in the relevant Licensed Patents. If University, in accordance with the terms and conditions of this Agreement, chooses to institute suit against an alleged infringer, University may bring such suit in its own name (or, if required by law, in its and Company's name) and at its own expense, and Company will, but at University's expense for Company's direct associated expenses, fully and promptly cooperate and assist University in connection with any such suit. All license fees, royalties, damages, awards, or settlement proceeds arising from such a University-initiated action will be solely for the account of University.

7.6 No Obligation to Institute Action. Neither Company nor University is obligated under this Agreement to institute or prosecute a suit against any alleged infringer of the Licensed Rights.

8. LICENSED RIGHTS VALIDITY

8.1 Notice and Investigation of Third Party Challenges. If any Third Party challenges the validity or enforceability of any of the Licensed Rights, the Party having such information will immediately notify the other Party.

8.2 Third Party Actions. In the event of a Third Party legal action challenging the validity or enforceability of any of the exclusively Licensed Rights, Company in its sole discretion will have the right to assume and control the sole defense of the claim at Company's expense. Company will not settle any suits or actions in any manner relating to the Licensed Rights without obtaining the prior written consent of University, which consent shall not be unreasonably withheld or delayed; provided, however, that the Parties agree that loss of University's intellectual property rights is a reasonable reason to withhold consent. Further, if Company is not diligently protecting University's intellectual property rights, or if Company does not elect to assume and control the sole defense of the Third Party legal action within [***] after becoming aware of challenge, University will have the right to assume the defense of the action at its own expense. University will not settle any suits or actions in any manner relating to the Licensed Rights without considering in good faith any comments from Company.

8.3 Enforceability of Licensed Rights. Notwithstanding challenge by any Third Party, any Licensed Right will be enforceable under this Agreement until such Licensed Right is determined to be invalid.

9. TERMINATION

9.1 End of Term. This Agreement will expire, unless terminated earlier as provided in this Article 9 “Termination”, without further action by the Parties, when all Licensed Rights have terminated pursuant to Article 2 “License Grant”, and all obligations due to University based on the exercise of such Licensed Rights have been fulfilled.

9.2 Termination by University. If Company materially breaches or fails to perform one or more of its material duties under this Agreement, University may deliver to Company a written notice of default, which notice will (a) state that it is a notice of default, (b) state that University intends to terminate this Agreement if the default is not cured in ninety (90) days, and (c) identify the material duty or duties to which such default relates. Subject to Section 13.4 “Escalation; Dispute Resolution”, University may terminate this Agreement by delivering to Company a written notice of termination if the default has not
been cured within ninety (90) days of the delivery to Company of the notice of default; provided, however, if Company can reasonably demonstrate to University that it is proceeding diligently and in good faith to cure such default but cannot do so within such ninety (90) day period, University will extend such cure period for another ninety (90) day period, or such longer period approved by University. In addition, University may terminate this Agreement in part pursuant to Section 5.2 “Renegotiation of Performance Milestones”.

9.3 **Events of Default.** University may terminate this Agreement by delivering to Company a written notice of termination at least ten (10) days prior to the date of termination if Company (i) permanently ceases operations; (ii) voluntarily files or has filed against it a petition under applicable bankruptcy or insolvency laws that Company fails to have released within thirty (30) days after filing; (iii) proposes any dissolution, composition, or financial reorganization with creditors or if a receiver, trustee, custodian, or similar agent is appointed; (iv) makes a general assignment for the benefit of creditors; or (v) if Company challenges the validity of the Licensed Patents.

9.4 **Disputing Events of Default.** Notwithstanding the foregoing, if Company disputes that a default has occurred as contemplated above or that a default has not been cured, Company may use the dispute resolution mechanism outlined in Section 13.4 “Escalation; Dispute Resolution”.

9.5 **Termination by Company.** Company may terminate this Agreement at any time by delivering to University a written notice of termination at least sixty (60) days prior to the effective date of termination. In addition, Company may propose to terminate certain of its Licensed Rights hereunder by delivering to University a written notice of termination accompanied by a proposed written amendment to this Agreement at least sixty (60) days prior to the effective date of termination of such Licensed Rights. For clarity, such amendment will become effective upon execution of such amendment by University and Company and shall not be unreasonably withheld or delayed.

9.6 **Effect of Termination.** Upon termination of this Agreement, the Licensed Rights granted (including any and all rights granted under the Licensed Rights to Sublicensees including Permitted Sublicensees) will terminate. However, no end-user rights shall terminate as a result of termination of this Agreement. Company’s obligations that have accrued prior to the effective date of termination or expiration of this Agreement (including but not limited to the obligations under Article 6 “Payments, Reimbursements, Reports, and Records” will survive termination of this Agreement. Sublicenses will terminate unless converted into a direct license with University pursuant to Section 9.8 “Sublicenses After Termination”. Notwithstanding any such termination of this Agreement, subject to being in compliance with Article 6 of this Agreement at the time of termination, and subject to ongoing compliance with obligations under Article 6 and Article 10 “Release, Indemnification, and Insurance”, Company and any Sublicensees and Distributors may sell or otherwise dispose of existing inventory of Licensed Products for a period of [***] days after the effective date of termination of this Agreement ("Sell-Off Period"), provided, however, that the terms of this Agreement shall apply to the Sell-Off Period as if this Agreement had not terminated. Company will provide notification if Company, or any Sublicensees or Distributors, will be exercising their rights to continue selling inventory pursuant to the Sell-Off Period.

9.7 **Final Report to University.** Within sixty (60) days after the end of the calendar quarter following either the expiration or termination of either this Agreement or the Sell-Off Period, whichever is later, Company will submit a final Sales Report to University. Any payment obligations accrued prior to such
termination or expiration, including those incurred but not yet paid, will become due and payable at the same time as this final Sales Report is due to University.

9.8 Sublicenses After Termination. At any time within [***] following termination of this Agreement, Sublicensee may notify University pursuant to Section 13.10 “Notices” that it wishes to enter into a direct license with University in order to retain its rights to the Licensed Rights granted to it under its Sublicense (such [***] period following receipt of notice of termination, the “Initial Notice Period”). Following University's receipt of Sublicensee's notice, University shall offer Sublicensee a license agreement the terms of which will be substantially similar to the terms of this Agreement; provided, however, that the offered scope of the direct license, licensed territory, and duration of the license grant will be the same as (not merely substantially similar to) the scope of the license, licensed territory and duration of the license granted under this Agreement (unless the rights granted by Company to Sublicensee were a subset of rights under this Agreement, in which case the scope of the direct license, licensed territory and duration of the license will be the same as the corresponding terms granted by Company to such Sublicensee). For the sake of clarity, the financial terms, including without limitation, the running royalty rate and milestone payments, will be identical to the corresponding financial terms set forth in this Agreement, provided University shall consider in good faith reducing the non-running royalty financial payments where there are multiple direct licensees or such direct licensee has a reduced scope compared with this Agreement. Notwithstanding the foregoing, each Sublicensee’s right to enter into such direct license will be conditioned upon:

9.8.1 Written Notification to University. Such Sublicensee informing University in writing, pursuant to Section 13.10 “Notices”, that it wishes to enter into such direct license with University, within the Initial Notice Period;

9.8.2 Sublicensee In Good Standing. Such Sublicensee being in good standing with Company under its Sublicense such that Sublicensee is not in material breach of the Sublicense;

9.8.3 Valid Sublicense. Such Sublicense having been validly entered into by Company and Sublicensee pursuant to the terms of Section 2.3 “Sublicense Rights”;

9.8.4 Sublicensee Certification that Conditions are Satisfied. Such Sublicensee using reasonable efforts to certify or otherwise demonstrate that the conditions set forth in Subsections 9.8.1 “Written Notification to University”, 9.8.2 “Sublicense In Good Standing”, and 9.8.3 “Valid Sublicense” have been met within [***] of expiration of the Initial Notice Period (or within such longer period of time as University agrees is reasonable under the circumstances, based on the nature and extent of any documentation reasonably requested by University); and

9.8.5 Time Limitations. Unless mutually agreed by the Parties in writing, execution of a direct license with Sublicensee will be completed not later than [***] from the end of the Initial Notice Period.

Except as set forth in Subsection 9.8.5 “Time Limitations”, University may, at its sole discretion, waive any of the requirements in Subsections 9.8.1 through 9.8.4. If all of the conditions set forth in this Section 9.8 “Sublicenses After Termination” are met, then Sublicensee will be granted such direct license by University. If any condition set forth in this Section 9.8 “Sublicenses After Termination” is not met, then

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after expiration of any time period granted to Sublicensee with respect to meeting such condition (for example and to the extent applicable, the Initial Notice Period and/or the periods described in Subsections 9.8.4 “Sublicensee Certification that Conditions are Satisfied” and 9.8.5 “Time Limitations”), Sublicensee will not practice Licensed Rights except as provided for in Section 9.6 “Effect of Termination” and University will be free to license or not license Licensed Rights to such Sublicensee according to University’s sole discretion.

10. RELEASE, INDEMNIFICATION, AND INSURANCE

10.1 Company’s Release. Company hereby releases University, IRB, and their regents, officers, employees, and agents forever from any and all suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses) relating to or arising out of (a) the manufacture, use, lease, sale, or other disposition of a Licensed Product; or (b) the assigning or sublicensing of Company's rights under this Agreement.

10.2 Indemnification. Company will indemnify, defend, and hold harmless University, IRB and their regents, officers, employees, and agents (each, an “Indemnitee”) from all Third Party suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses), based on University's or IRB's role in developing or licensing Licensed Rights and relating to or arising out of Company's or Sublicensees’ exercise of any rights with respect to Licensed Products, including, without limitation, personal injury, property damage, breach of contract and warranty and products-liability claims relating to a Licensed Product and claims brought by a Sublicensee (each, a “Claim”), provided that the Company will not have obligations to the extent resulting from the University's or IRB's gross negligence or willful misconduct. In the event of a Claim, the Indemnitee against whom a Claim is brought will: (a) give Company written notice of the Claim within a reasonable period of time after such Indemnitee receives notice thereof along with sufficient information for Company to identify the Claim; and (b) cooperate and provide such assistance (including, without limitation, testimony and access to documentation within the possession or control of such Indemnitee) as Company may reasonably request in connection with Company’s defense, settlement and satisfaction of the Claim. Company will pay or reimburse all costs and expenses reasonably incurred by such Indemnitee to provide any such cooperation and assistance. Any settlement that would admit liability on the part of University or IRB or that would involve any relief other than the payment of monetary damages will be subject to the approval of University and/or IRB, such approval not to be unreasonably withheld. HHMI, and its trustees, officers, employees, and agents (collectively, “HHMI Indemnitees”), will be indemnified, defended by counsel acceptable to HHMI, and held harmless by Company from and against any claim, liability, cost, expense, damage, deficiency, loss, or obligation, of any kind or nature (including, without limitation, reasonable attorneys’ fees and other costs and expenses of defense) (collectively, “HHMI Claims”), based upon, arising out of, or otherwise relating to this Agreement or any Sublicense, including without limitation any cause of action relating to product liability. The previous sentence will not apply to any HHMI Claim that is determined with finality by a court of competent jurisdiction to result solely from the gross negligence or willful misconduct of an HHMI Indemnitee. Notwithstanding any other provision of this Agreement, Company’s obligation to defend, indemnify and hold harmless the HHMI Indemnitees under this paragraph will not be subject to any limitation or exclusion of liability or damages or otherwise limited in any way.

10.3 Company’s Insurance.

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10.3.1 **General Insurance Requirement.** Throughout the term of this Agreement, or during such period as the Parties will agree in writing, Company will maintain full force and effect commercial general liability (CGL) insurance and product liability insurance, with single claim limits at an amount customary to Company’s business for activities and/or products of a similar nature. Such insurance policy will include coverage for claims that may be asserted by University or HHMI against Company under Section 10.2 “Indemnification”. Such insurance policy will name the Board of Regents of the University of Washington and HHMI as an additional insured and will require the insurer to deliver written notice to University at the address set forth in Section 13.10 “Notices”, at least thirty (30) days prior to the termination of the policy. Company will deliver to University a copy of the certificate of insurance for such policy.

10.3.2 **Clinical Trial Liability Insurance.** Within thirty (30) days prior to the initiation of human clinical trials with respect to Licensed Product(s), Company will provide to University certificates evidencing the existence and amount of clinical trials liability insurance. Company will issue irrevocable instructions to its insurance agent and to the issuing insurance company to notify University of any discontinuance or lapse of such insurance not less than thirty (30) days prior to the time that any such discontinuance is due to become effective. Company will provide University a copy of such instructions upon their transmittal to the insurance agent and issuing insurance company. Company will further provide University, at least annually, proof of continued coverage.

11. **WARRANTIES**

11.1 **Authority.** Each Party represents and warrants to the other Party that it has full power and authority to execute, deliver, and perform this Agreement, and that no other proceedings by such Party are necessary to authorize the Party’s execution or delivery of this Agreement.

11.2 **Documents.** University represents and warrants that: all University personnel, including employees, students, consultants and contractors, who University is aware as of Effective Date have contributed to the Licensed Patents as of Effective Date have either (a) been party to a for-hire relationship with University that affords University sufficient ownership of all Licensed Patents to provide this license of University’s rights to Company, or (b) executed assignment documents in favor of University as prescribed either by University policies or by agreement with HHMI to provide University sufficient ownership of the Licensed Patents to provide this license of University’s rights to Company. Furthermore, in the interinstitutional agreement between University and IRB, IRB represents that its inventors are obligated to assign to IRB all of the inventors’ rights in the Licensed Patents, and that IRB will use diligent efforts to cause its inventors to sign any additional papers as may be necessary to evidence such assignment.

11.3 **No Known Infringement.** As of the Effective Date, to the best of University’s CoMotion office’s knowledge, (a) no claim has been made or is threatened charging University or IRB with infringement of, or claiming that the Licensed Rights infringe any Third Party rights; and (b) no proceedings have been instituted, or are pending or threatened, which challenge the University’s or IRB’s rights in respect to the Licensed Patents or other Licensed Rights.

11.4 **Disclaimer.** EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN SECTIONS 11.1 “AUTHORITY”,
11.2 “DOCUMENTS”, AND 11.3 “NO KNOWN INFRINGEMENT” UNIVERSITY DISCLAIMS AND EXCLUDES ALL WARRANTIES, EXPRESS AND IMPLIED, CONCERNING EACH LICENSED RIGHT AND EACH LICENSED PRODUCT, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF NON-INFRINGEMENT AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. University innovation is experimental in nature and is made available “AS IS,” without obligation by University to provide accompanying services or support except as specified in this Agreement. The entire risk as to the quality and performance of University innovation is with Company.

11.5 **Intellectual Property Disclaimers.** University expressly disclaims any warranties concerning and makes no representations: (a) that the Licensed Patent(s) will be approved or will issue; (b) concerning the validity or scope of any Licensed Right; or (c) that the practice of Licensed Rights, or the manufacture, use, sale, lease or other disposition of a Licensed Product will not infringe or violate a Third Party’s patent, copyright, or other intellectual property right.

**12. DAMAGES**

12.1 **Remedy Limitation.** EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, (A) IN NO EVENT WILL UNIVERSITY OR IRB BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES CONTEMPLATED IN THIS AGREEMENT AND (B) IN NO EVENT WILL EITHER PARTY OR IRB BE LIABLE FOR LOST PROFITS, LOST BUSINESS OPPORTUNITY, INVENTORY LOSS, WORK STOPPAGE, LOST DATA OR ANY OTHER RELIANCE OR EXPECTANCY, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OF ANY KIND.

12.2 **Damage Cap.** IN NO EVENT WILL UNIVERSITY’S TOTAL LIABILITY FOR THE BREACH OR NONPERFORMANCE OF THIS AGREEMENT EXCEED [***] OF PAYMENTS PAID TO UNIVERSITY UNDER ARTICLE 6 “PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS”. THIS LIMITATION WILL APPLY TO CONTRACT, TORT, AND ANY OTHER CLAIM OF WHATEVER NATURE.

**13. GENERAL PROVISIONS**

13.1 **Amendment and Waiver.** This Agreement may be amended from time to time only by a written instrument signed by the Parties. No term or provision of this Agreement will be waived, and no breach excused, unless such waiver or consent is in writing and signed by the Party claimed to have waived or consented. No waiver of a breach will be deemed to be a waiver of a different or subsequent breach.

13.2 **Assignment.** The rights and licenses granted by University in this Agreement are personal to Company and Company will not assign its interest or delegate its duties under this Agreement without the written consent of University, which consent will not to be unreasonably withheld or delayed; any such assignment or delegation made without written consent of University will not release Company from its obligations under this Agreement. Notwithstanding the foregoing, Company, without the prior approval of University, may assign all, but no less than all, of its rights and delegate all, but no less than all, of its duties under this Agreement to a Third Party provided that: (a) the assignment is made to such Third Party as a part of and in connection with an Acquisition, (b) Company obtains from such Third Party written agreement to honor all obligations under this Agreement accrued by Company before Acquisition and all obligations under this Agreement to accrue by such Third Party assignee after Acquisition, and (c) Icosavax, Inc. / University of Washington

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Company provides written notice to University of the Acquisition, together with a substitution of parties document or copy of the assignment confirming compliance with (b) above, no later than thirty (30) days after the close of the Acquisition. Any assignment made in violation of this Section 13.2 is void and will constitute an act of breach that requires remedy under Section 9.2 "Termination by University". This Agreement will inure to the benefit of Company and University and their respective permitted assignees and trustees.

13.3  Confidentiality.

13.3.1  Form of Transfer. Confidential Information may be conveyed in tangible or intangible form. Disclosing Party must clearly mark its Confidential Information “confidential”. If disclosing Party communicates Confidential Information in non-written form, it will reduce such communications to writing, clearly mark it “confidential”, and provide a copy to receiving Party within thirty (30) days of original communication at the address in Section 13.10 “Notices”. Any business information delivered by Company as required under this Agreement shall be deemed marked “confidential”, whether or not such confidential marking appears.

13.3.2  No Unauthorized Disclosure of Confidential Information. Beginning on the Effective Date and continuing throughout the term of this Agreement and thereafter for a period of [***], receiving Party will not disclose or otherwise make known or available to any Third Party any disclosing Party Confidential Information, without the express prior written consent of disclosing Party. Notwithstanding the foregoing, receiving Party will be permitted to disclose Confidential Information of disclosing Party to (i) actual or potential investors, lenders, consultants, advisors, collaborators, Sublicensees, or development partners, which disclosure will be made under conditions of confidentiality and limited use and (ii) its attorney or agent as reasonably required and (iii) to employees and trustees of HHMI who have a need to know. In no event will receiving Party incorporate or otherwise use disclosing Party's Confidential Information in connection with any patent application filed by or on behalf of receiving Party. Receiving Party will restrict the use of disclosing Party's Confidential Information to uses exclusively in accordance with the terms of this Agreement. Receiving Party will use reasonable procedures to safeguard disclosing Party's Confidential Information. In the case where Company is the receiving Party, Company's confidentiality obligations will also apply equally to Sublicensees.

13.3.3  Access to University Information. University is an agency of the state of Washington and is subject to the Washington Public Records Act, RCW 42.56 et seq., ("Act"), and no obligation assumed by University under this Agreement will be deemed to be inconsistent with University's obligations as defined under the Act and as interpreted by University in its sole discretion. If University receives a request for public records under the Act for documents containing Company Confidential Information, and if University concludes that the documents are not otherwise exempt from public disclosure, University will provide Company notice of the request before releasing such documents. Such notice will be provided in a timely manner sufficient time to review such documents and/or seek a protective order, at Company's expense utilizing the procedures described in RCW 42.56.540. University will have no other obligation to protect Company Confidential Information from disclosure in response to a request for public records.
13.3.4 Disclosure as Required by Law. Either Party will have the right to disclose the other Party’s Confidential information as required by law or valid court order, provided that such Party will inform the Party who owns such Confidential Information prior to such disclosure, will cooperate with the owner Party’s efforts to limit or avoid disclosure, and will limit the scope and recipient of disclosure to that required by such law or court order.

13.4 Escalation; Dispute Resolution. If (i) Company disputes that a default has occurred as contemplated in Section 9.2 “Termination by University”, or that a default has not been cured, or (ii) Company wishes to dispute termination of this Agreement resulting from a failed renegotiation of a new Performance Milestone as contemplated under Section 5.2 “Renegotiation of Performance Milestones”, or (iii) Company disputes in good faith any amounts that are owed to University under this Agreement, and a late fee for such disputed amount has been charged to Company under Section 6.3 “Late Payments”, then Company may provide University with a written dispute notice (“Dispute Notice”). In the case of (i) and (ii) above such Dispute Notice must be received by University prior to expiration of the 60-day cure period referenced in Section 9.2 “Termination by University”, stating the basis of Company’s disagreement with respect to such default or cure. In the case of (iii) above such Dispute Notice must be received by University within thirty (30) days of being charged a late fee for such disputed amount. If Company disputes that a default has occurred as contemplated in Section 9.3 “Events of Default”, then Company may provide University with a Dispute Notice within thirty (30) days of University sending the notice of termination referenced in Section 9.3 “Events of Default”. Upon receipt of a Dispute Notice, University’s right to terminate this Agreement or demand payment of late fees will be suspended and all rights under this Agreement will continue unaffected provided the dispute resolution process in this Section 13.4 “Escalation; Dispute Resolution” is being exercised. Any dispute will first be escalated to Company’s Chief Executive Officer or to a representative from Company’s Board of Directors, and to University’s Vice President for Innovation Strategy, representatives of which will be instructed to work in good faith to attempt to reach a mutually acceptable resolution of the dispute that would avoid termination of this Agreement. If the representatives are unable to reach such resolution of the dispute within thirty (30) days of delivery of the Dispute Notice, an independent, neutral mediator acceptable to both Parties (acting reasonably) will be appointed. The Parties will submit their dispute to mediation according to such parameters as they may mutually agree in writing. The Parties agree to discuss their differences in good faith and to attempt to resolve each matter in good faith, with facilitation by the mediator, to reach an amicable resolution of the dispute within thirty (30) days after the mediator’s appointment. If the Parties are not able to agree on resolution of the dispute within such period, or within ninety (90) days of the Dispute Notice, whichever is earlier, including agreeing on a new Performance Milestone pursuant to Section 5.2 “Renegotiation of Performance Milestones” if that is the subject of the dispute, then the dispute resolution process of this Section 13.4 “Escalation; Dispute Resolution” will be complete and either Party may pursue any other action that is legally available to it. Notwithstanding the foregoing, no dispute affecting the rights or property of HHMI shall be subject to the dispute resolutions provisions set forth above.

13.5 Consent and Approvals. Except as otherwise expressly provided in this Agreement, all consents or approvals required under the terms of this Agreement must be in writing and will not be unreasonably withheld or delayed.

13.6 Construction. The headings preceding and labeling the sections of this Agreement are for the purpose of identification only and will not in any event be employed or used for the purpose of construction or interpretation of any portion of this Agreement. As used herein and where necessary, the

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singular includes the plural and vice versa, and masculine, feminine, and neuter expressions are interchangeable, and the word “including” shall mean “including, without limitation.”

13.7 Enforceability. If a court of competent jurisdiction adjudges a provision of this Agreement unenforceable, invalid, or void, such determination will not impair the enforceability of any of the remaining provisions hereof and the provisions will remain in full force and effect.

13.8 Third-Party Beneficiaries. Except as identified in Section 13.22 “Third Party Beneficiary” or other parts of this Agreement referencing IRB, no provision of this Agreement, express or implied, confers upon any person other than the Parties to this Agreement, IRB, HHMI and Sublicensees (Sublicensees solely for purposes of enforcing Sections 9.8 “Sublicenses After Termination” and 13.22) any rights, remedies, obligations, or liabilities hereunder. No Sublicensee will have a right to enforce or seek damages under this Agreement other than as set forth in Section 13.22. The Parties agree that no amendment or modification to Section 9.8 or Section 13.22 shall apply to a Sublicensee without the prior written consent of that Sublicensee, if such amendment occurs after the date of execution of the applicable Sublicense.

13.9 Language. Unless otherwise expressly provided in this Agreement, all notices, reports, and other documents and instruments that a Party elects or is required by the terms of this Agreement to deliver to the other Party will be in English.

13.10 Notices. All notices, requests, and other communications that a Party is required or elects to deliver will be in writing and will be delivered personally, or by facsimile or electronic mail (provided such delivery is confirmed), or by a recognized overnight courier service or by United States mail, first-class, certified or registered, postage prepaid, return receipt requested, to the other Party at its address set forth below or to another address as a Party may designate by notice given under this Section 13.10:

If to University: UW CoMotion
ATTN: Director, Innovation Development
4545 Roosevelt Way NE, Suite 400
Seattle, WA 98105-4721
Facsimile No.: 206-685-4767

If to Company: Icosavax, Inc.
ATTN: Adam Simpson
600 University Street, Suite 2525
Seattle, WA 98101

13.11 Proprietary Markings. To the extent commercially feasible, Company will mark all material forms of Licensed Products or packaging pertaining thereto made and sold by Company in the United States with patent marking conforming to 35 U.S.C. §287(a), as amended from time to time. All Licensed Product(s) shipped to or sold in other countries will be marked in such a manner as to provide notice to potential infringers pursuant to the patent law and practice of the country of manufacture or sale.

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13.12 **Use of University’s Name and Trademarks or the Names of University Faculty, Staff, or Students.** No provision of this Agreement grants Company or Sublicensee any right or license to use the name or trademarks of University or IRB or the names or identities of any member of the faculty, staff, or student body of University or IRB. Except as provided herein, Company will not use, and will not permit a Sublicensee to use, any such trademarks, names, or identities without University’s, IRB’s and, as the case may be, such member’s prior written approval. Notwithstanding the foregoing, Company, University, and IRB may provide factual information regarding the existence of this Agreement. Company acknowledges that under HHMI policy, Company may not use the name of HHMI or of any HHMI employee (including Dr. Baker) in a manner that reasonably could constitute an endorsement of a commercial product or service; but that use for other purposes, even if commercially motivated, is permitted provided that (1) the use is limited to accurately reporting factual events or occurrences, and (2) any reference to the name of HHMI or any HHMI employees in press releases or similar materials intended for public release is approved by HHMI in advance.

13.13 **Publicity.** In accordance with Section 13.12, University will have the right to report in its customary publications and presentations that University and Company have entered into a license agreement for the technology covered by the Licensed Rights and University may use Company logos in such publications and presentations provided that University does not modify Company’s logos and does not through such use imply any endorsement by Company of University. The Parties will cooperate with one another to review and respond to any press release or similar communication proposed by the other Party regarding the non-confidential subject matter of this Agreement. The specific content and timing of such press releases or similar communication is subject to mutual agreement by the Parties, which will not be unreasonably withheld. Further, University and Company will issue a joint press release regarding this Agreement, subject to both Parties’, and, if applicable in accordance with Section 13.12, HHMI’s, review and approval of the specific content thereof, and such press release will include specific mention of the contributions of University personnel, in accordance with Section 13.12, and University in developing the technology in a prominent portion of the press release. Company will provide University with appropriate quotes for such press release. University may post the press release in digital and print publications as well as on University’s own website.

13.14 **Relationship of Parties.** In entering into, and performing their duties under, this Agreement, the Parties are acting as independent contractors and independent employers. No provision of this Agreement will create or be construed as creating a partnership, joint venture, or agency relationship between the Parties. No Party will have the authority to act for or bind the other Party in any respect.

13.15 **Relationship with Principal Investigator(s).** Company acknowledges that Principal Investigator is employed by University and has certain pre-existing obligations to University, including obligations with respect to disclosure and ownership of intellectual property and obligations arising from sponsored research agreements between University and Third Parties. Accordingly, Company agrees that to the extent that any consulting agreement between Company and Principal Investigator is inconsistent with any of Principal Investigator’s obligations to University, including the reporting of all inventions developed while employed by University (regardless of where arising) and including contractual obligations arising under any sponsored research agreements between University and Third Parties, then Principal Investigator’s obligations to University will prevail and to such extent any inconsistent provisions of such consulting agreement will be deemed inapplicable and unenforceable.

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13.16 **Security Interest.** In no event will Company grant, or permit any person to assert or perfect, a security interest in the Licensed Rights; however, Company may grant or permit a security interest in the Company's rights under this Agreement.

13.17 **Survival.** The obligations specified in Article 6 “Payments, Reimbursements, Reports, and Records” will survive termination of this Agreement provided Reports will not be required for any period in which there are no Net Sales other than the final report due under Section 9.7 “Final Report to University”. Article 1 “Definitions” and the obligations and rights set forth in Section 2.8 “HHMI Research Use Rights”, Section 5.3 “Commercialization Reports” (as applicable to any Sell-Off Period), Article 9 “Termination”, Article 10 “Release, Indemnification, and Insurance”, Article 11 “Warranties”, Article 12 “Damages”, Section 13.3 “Confidentiality”, Section 13.4 “Escalation; Dispute Resolution”, but only with respect to any disputes arising before the effective date of termination or expiration), Section 13.17 “Survival”, Section 13.19 “Applicable Law”, Section 13.20 “Forum Selection”, Section 13.21 “Entire Agreement”, and Section 13.22 “Third-Party Beneficiary” will survive the termination or expiration of this Agreement.

13.18 **Collection Costs and Attorneys’ Fees.** If a Party fails to perform an obligation or otherwise breaches one or more of the terms of this Agreement, the other Party may recover from the non-performing breaching Party all its costs (including actual attorneys' and investigative fees) to enforce the terms of this Agreement.

13.19 **Applicable Law.** The internal laws of the state of Washington will govern the validity, construction, and enforceability of this Agreement, without giving effect to the conflict of laws principles thereof.

13.20 **Forum Selection.** Any suit, claim, or other action to enforce the terms of this Agreement will be brought exclusively in the state and federal courts of King County, Washington. Company hereby submits to the jurisdiction of that court and waives any objections it may have to that court asserting jurisdiction over Company or its assets and property.

13.21 **Entire Agreement.** Company and University executed an exclusive option agreement (“Option”) for certain Licensed Patents, with University reference [***], dated [***]. This Agreement (including all attachments, exhibits, and amendments) is the final and complete understanding between the Parties concerning licensing of the Licensed Rights. This Agreement supersedes any and all prior or contemporaneous negotiations, representations, and agreements, whether written or oral, concerning the Licensed Rights. However, the obligations of nondisclosure for confidential information (such term as defined in the Option) disclosed under the Option will survive. Confidential Information disclosed under this Agreement will be governed by the terms of this Agreement. This Agreement may not be modified in any manner, except by written agreement signed by an authorized representative of both Parties.

13.22 **Third Party Beneficiary.**

13.22.1 HHMI is not a party to this Agreement and has no liability to any licensee, sublicensee, or user of anything covered by this Agreement, but HHMI is an intended third-party beneficiary of this Agreement and certain of its provisions are for the benefit of HHMI and are enforceable by HHMI in its own name.

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13.22.2 Notwithstanding anything to the contrary in this Agreement, each Sublicensee is an intended third party beneficiary of this Agreement, but solely for purposes of enforcing Section 9.8 “Sublicenses After Termination” in its own name.

13.23 Counterparts. This Agreement may be executed in counterparts, each of which (including signature pages) will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile, scanned, or photocopied signature (and any signature duplicated in another similar manner) identical to the original will be considered an original signature.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective authorized representatives.

University of Washington
By: /s/ Fiona Wills
Name: Fiona Wills
Title: Director, Innovation Development
Date: 6/29/2018

Icosavax, Inc.
By: /s/ Adam K. Simpson
Name: Adam K. Simpson
Title: CEO
Date: 6/29/2018
A1. Licensed Rights:
   A1.1 Licensed Patents: [***]

A2. Performance Milestones (Section 5.1 “Performance Milestones”): Subject to Company's right to renegotiation or Company's payment of a fee for extension as set forth in Article 5 “Commercialization” of the Agreement, Company will perform, or shall cause to happen or be performed, the following Performance Milestones:

<table>
<thead>
<tr>
<th>Performance Milestone and Performance Milestone Date for First Indication Category in the Field of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2.1.1 Performance Milestone 1</td>
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<tr>
<td>A2.1.2 Performance Milestone 2</td>
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<tr>
<td>A2.1.3 Performance Milestone 3</td>
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<tr>
<td>A2.1.4 Performance Milestone 4</td>
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<tr>
<td>A2.1.5 Performance Milestone 5</td>
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<tr>
<td>A2.1.6 Performance Milestone 6</td>
</tr>
<tr>
<td>A2.1.7 Performance Milestone 7</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Milestone and Performance Milestone Date for Second Indication Category in the Field of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2.2.1 Performance Milestone 1</td>
</tr>
<tr>
<td>A2.2.2 Performance Milestone 2</td>
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<tr>
<td>A2.2.3 Performance Milestone 3</td>
</tr>
</tbody>
</table>
A2.2.4
Performance
Milestone 4

A2.2.5
Performance
Milestone 5

A2.2.6
Performance
Milestone 6

A2.2.7
Performance
Milestone 7

A2.3.1
Performance
Milestone 1

A2.3.2
Performance
Milestone 2

A2.3.3
Performance
Milestone 3

A2.3.4
Performance
Milestone 4

A2.3.5
Performance
Milestone 5

A2.3.6
Performance
Milestone 6

A2.3.7
Performance
Milestone 7

A2.4.1
Performance
Milestone 1

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A2.4.2
Performance Milestone 2

A2.4.3
Performance Milestone 3

A2.4.4
Performance Milestone 4

A2.4.5
Performance Milestone 5

A2.4.6
Performance Milestone 6

A2.4.7
Performance Milestone 7

A2.5.1
Performance Milestone 1

A2.5.2
Performance Milestone 2

A2.5.3
Performance Milestone 3

A2.5.4
Performance Milestone 4

A2.5.5
Performance Milestone 5

A2.5.6
Performance Milestone 6

A2.5.7
Performance Milestone 7

Performance Milestone and Performance Milestone Date for Fifth Indication Category in the Field of Use

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A3. Payments (Section 6.1):

A3.1 Annual Maintenance Fee. Company will pay to University an annual, non-creditable, maintenance fee of [***] due on the second anniversary and all subsequent anniversaries of the Effective Date provided that no annual maintenance fee will be due in any year Company pays minimum annual royalties.

A3.2 Running Royalty Payments. Company will pay to University within sixty (60) days after the last day of each calendar quarter during the term of this Agreement an amount equal to [***] during such quarter as a running royalty payment.

A3.2.1 Stacking or Third Party Royalty. If a Licensed Party is required to pay royalties to a Third Party based on such Licensed Party's manufacture, use, offer for sale, sale or import of Licensed Product, subject to one or more patents of such Third Party, then the royalty Company pays to University may be reduced [***] of the royalty actually paid to the Third Party; provided that [***] of Licensed Product, and provided that the royalty amount paid to the University shall not fall below [***] of Net Sales.

A3.3 Minimum Annual Royalties. Company will pay minimum annual royalties for the term of this Agreement to be creditable against running royalty payments for the preceding calendar year on a non-cumulative basis and to be due in full and payable on January 31st of each year beginning on January 31st following the first full calendar year after the first commercial sale of a Licensed Product and continuing during the term of this Agreement according to the following schedule:

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Minimum Annual Royalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year [***] after first commercial sale</td>
<td>[***]</td>
</tr>
<tr>
<td>Year [***] after first commercial sale</td>
<td>[***]</td>
</tr>
<tr>
<td>Year [***] after first commercial sale and each year after</td>
<td>[***]</td>
</tr>
</tbody>
</table>

A3.3.1 If this Agreement is terminated prior to the payment of a minimum annual royalty in any given year the amount due for that minimum annual royalty payment will be prorated on the basis of the number of full quarters that have elapsed prior to termination since the last payment of a minimum annual royalty.

A3.4 Financial Milestone Payments. Company will pay to University the following non-cumulative, non-creditable, and non-refundable, one-time Performance Milestone achievement payments for each of First Indication Category, Second Indication Category, Third Indication Category, Fourth Indication Category, and Fifth Indication Category within thirty (30) days of achieving the corresponding Performance Milestone, whether achieved by Company or a Sublicensee:
Performance Milestone Achieved

[***] Performance Milestone 4 in A2.1.4, A2.2.4, A2.3.4, A2.4.4, or A2.5.4
[***] Performance Milestone 5 in A2.1.5, A2.2.5, A2.3.5, A2.4.5, or A2.5.5
[***] Performance Milestone 6 in A2.1.6, A2.2.6, A2.3.6, A2.4.6, or A2.5.6
[***] Cumulative Net Sales of [***] for First Indication Category, Second Indication Category, Third Indication Category, Fourth Indication Category, or Fifth Indication Category

For the avoidance of doubt, total Financial Milestones for each Indication Category shall not exceed US [***] and total Financial Milestones under this Agreement shall not exceed [***]. Each Financial Milestone shall be payable only once for the applicable Indication Category even if such milestone is achieved by more than one Licensed Product.

A3.5 Equity. In consideration for the rights granted to Company hereunder, within thirty (30) days after the Effective Date, Company will issue to University a number of Shares equal to [***] of Company’s Fully-Diluted Shares as of the Effective Date, such Shares to be issued pursuant to the Stock Subscription Agreement attached hereto as Exhibit D. In addition, Company agrees to issue additional Shares to University sufficient to cause the University to own in aggregate [***] of Company’s Fully-Diluted Shares through such time as the Company has raised Qualified Financing; provided, however, that if Company closes an equity financing that would result in its cumulative equity capital raised being in excess of the Qualified Offering Proceeds, any such excess capital (and resulting dilution) will be ignored and the number of additional Shares to be issued to University will be calculated assuming Company had raised only such amount of equity capital as would result in its cumulative equity capital raised since incorporation being equal to the Qualified Offering Proceeds. Any such additional Shares will be issued as of or immediately after such closing:

A3.5.1 Participation Rights. If at any time after the execution and delivery of the Agreement, Company proposes to sell any equity securities or securities that are convertible into equity securities of the Company (“Future Equity Financings”), then the University and/or its Assignee (as defined below) will have the right [***]. In addition, Company acknowledges that, [***]. Company shall provide thirty (30) days advance written notice of each such financing, including reasonable details regarding the terms of the financing. The term “Assignee” means (a) any entity to which the University's participation rights under this section have been assigned either by the University or another entity, or (b) any entity that is controlled by the University. This paragraph shall survive the termination of this Agreement as follows: such participation rights, including [***], shall expire on the earliest of:

A3.6 Sublicense Consideration. Within sixty (60) days of the end of each calendar quarter during the term of this Agreement, Company will pay to University [***] any Sublicense Consideration received by Company during such calendar quarter unless reduced by achievement of Performance Milestones by Company or its Sublicensees prior to execution of the particular Sublicense in accordance with the schedule below. Determination of the relevant Performance Milestone having been achieved for the purposes of determining the Sublicense Consideration percentage shall be based on the most advanced Licensed Product candidate then in development in the applicable Indication Category for which Sublicense Consideration was received. A further reduction of the percentage of Sublicense Consideration payable to University under this Agreement will be negotiated in good faith between the Parties where, in addition to the Sublicense of any

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rights granted to Company hereunder, Company or its Sublicensee also grants a Sublicensee a license or sublicense under a Third Party’s intellectual property rights that are or would be infringed by Licensed Product(s) (treating pending patent applications as if they were issued patents), but only to the extent that the total aggregate consideration for such combined license is treated as Sublicense Consideration.

<table>
<thead>
<tr>
<th>Performance Milestone Has Been Achieved at the Date of Execution of the Sublicense related to the applicable Indication Category</th>
<th>Sublicense Consideration Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestone 1</td>
<td>[***]</td>
</tr>
<tr>
<td>Milestone 2</td>
<td>[***]</td>
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<tr>
<td>Milestone 3</td>
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<td>Milestone 4</td>
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<td>Milestone 5</td>
<td>[***]</td>
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<tr>
<td>Milestone 6</td>
<td>[***]</td>
</tr>
<tr>
<td>Milestone 7</td>
<td>[***]</td>
</tr>
</tbody>
</table>

Notwithstanding the foregoing, achievement of Performance Milestones 1, 2 and 3 by the Company or its Sublicensee for the First Indication Category shall reduce the initial Sublicense Consideration percentage to [***] for all subsequent Indication Categories, with further subsequent reductions for such applicable Indication Category occurring upon achievement of Performance Milestones 3, 4, 5, 6, and 7 based on the schedule above.

**A3.7 Acquisition Fee**. University will be paid within thirty (30) days of an Acquisition a fee (the “Acquisition Fee”) equal to [***] of the Acquisition Consideration if no Performance Milestones have been achieved by Company or Sublicensee for any Indication Category; [***] of the Acquisition Consideration if Performance Milestone 1 has been achieved by Company or Sublicensee in at least one (1) Indication Category; [***] of the Acquisition Consideration if Performance Milestone 2 has been achieved by Company or Sublicensee in at least one (1) Indication Category; or [***] of the Acquisition Consideration if either (i) Performance Milestone 3 has been achieved by Company or Sublicensee in at least one (1) Indication Category, or (ii) Company has raised cumulative equity capital equal to or in excess of the Qualified Offering Proceeds regardless of whether Milestones 1 through 3 above have been met. The Acquisition Fee otherwise due under this Section A3.7 will be reduced and offset by the amount of consideration attributable to University’s Shares under Section A3.5 “Equity” above. For this purpose, the consideration attributable to the Shares will be deemed to include all amounts paid at closing, placed in escrow, subject to earnout payments, or otherwise contemplated by the agreement relating to such Acquisition, to the extent such amounts are actually received by University. The Company will act in good faith and will not intentionally seek to avoid payment of or reduce the Acquisition Fee by raising capital or achieving other Performance Milestones specifically for that purpose.

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Exclusive License Agreement
UW CoMotion Ref. [***]
A3.8 Patent Expense Payment. Company will pay, or reimburse University for paying, all Patent Expenses incurred on or after the Effective Date within thirty (30) days of its receipt of University’s invoice for such Patent Expenses. University reserves the right to request advance payments for certain Patent Expenses, at University’s discretion. Company will, within 30 days from raising Qualified Financing or one year from the Effective Date, whichever comes first (the “Patent Reimbursement Date”), to the extent not previously reimbursed to University by Company or a Third Party, reimburse University for all Patent Expenses incurred prior to the Effective Date. Such reimbursement by Company will be allocated into two (2) equal installments – one (1) installment of half the amount due will be paid within thirty (30) days from the later of the Effective Date or Patent Reimbursement Date, and a second installment covering the remainder of such past Patent Expenses will be paid on the one (1) year anniversary of the later of the Effective Date or Patent Reimbursement Date. The amount of unreimbursed Patent Expenses invoiced to University prior to the Effective Date is approximately [***]

A3.8.1 Notwithstanding Sections 4.2 and 4.3 of this Agreement, if at any time Company is not fully reimbursing University for Patent Expenses, or fails to provide advance payment when requested, University shall make patent filing, prosecution, and maintenance decisions, including choosing in which countries to prosecute patents, in its sole discretion and Company shall have no rights to provide instruction or to take over patent prosecution. University shall reasonably consider input provided by Company, but have no obligation to act on such input.

Icosavax, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Icosavax, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
[***]
Icosavax, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Stock Subscription Agreement

[***]

Icosavax, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Appendix A

Defined Terms:

The following terms shall be defined as follows for purposes of this Agreement:

The term “Agreement” means this Subscription Agreement, when executed by the University and the Company.

The term “Notice” means, with respect to the University, the information required by an applicable section delivered personally, or by facsimile or electronic mail (provided such delivery is confirmed), or by a recognized overnight courier service or by United States mail, first-class, certified or registered, postage prepaid, return receipt requested, to the other Party at its address set forth below or to another address as a Party may designate by notice given pursuant to this article.

The term “Securities” means __________ shares of the common stock, par value [***] per share of the Company.

The term “Company” means Icosavax, Inc., a Delaware corporation.

The term “University” means University of Washington, a public institution of higher education and an agency of the state of Washington, acting through UW CoMotion.

Address for Delivery of Stock Certificate:

Treasury Office
University of Washington
4311 – 11th Avenue NE, Suite 600
Seattle, WA 98105-4608

With a copy to:

UW CoMotion
University of Washington
4545 Roosevelt Way NE, Suite 400
Seattle, WA 98105-4721

Icosavax, Inc./University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Subject to the terms and conditions specified below, the Company hereby grants to the University a right of first offer with respect to future sales by the Company of any of its common stock or any securities convertible or exchangeable for common stock (the "Company Shares"). Each time the Company proposes to offer any Company Shares in an offering (the "Offered Shares") other than an offering described in Section 5 hereof, the Company shall first offer such stock to the University in accordance with this Appendix B.

1. **Notice.** The Company shall deliver a Notice by mail, facsimile transmission or personal delivery ("Company Notice") to the University stating (i) its bona fide intention to offer or issue the Offered Shares, (ii) the number of Offered Shares, and (iii) the price at which it proposes to issue the Offered Shares.

2. **Election.** The University may elect within 30 days after receipt of the Company Notice to purchase, at the price and on the terms specified in the Company Notice (or at such lower price as the Company accepts from other investors), [***] of the Offered Shares by giving written notice within such 30-day period to the Company.

3. **Subsequent Offerings.** For the avoidance of doubt, if the University does not exercise its rights to purchase, or if the Company terminates or withdraws the Offered Shares, and does not consummate an agreement for the sale of Offered Shares, the rights provided by this Appendix B shall continue to apply to any other Company Offering.

5. **Expiration.** The right of first offer granted under this Appendix B shall expire on the earliest of: (i) the date the Company closes an initial public offering of its common stock or otherwise becomes a public reporting company under the Securities Exchange Act of 1934 (e.g., via reverse merger), (ii) the date Company closes a sale, lease, or other disposition of all or substantially all of the Company’s assets or the Company’s merger into or consolidation with any other company or other entity, or any other company reorganization, in which Company’s outstanding voting shares immediately prior to such transaction represents, immediately after such transaction, securities representing less than [***] of the voting power of the company or other entity surviving such transaction, or (iii) the date Company enters into an agreement providing participation rights to preferred stockholders of the Company to the extent the Company offers the same rights to University.

7. **Assignment.** The right of first offer granted under this Appendix B shall be assignable in whole or in part by the University to any entity.

Icosavox, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Amendment No. 1 to

Exclusive License Agreement [***]

This amendment number one ("Amendment No. 1") to the Exclusive License Agreement [***] ("Agreement"), such agreement effective as of June 29, 2018, by and between the University of Washington, a public institution of higher education and an agency of the state of Washington ("University"), and Icosavax, Inc., a corporation organized under the laws of the state of Delaware ("Company") (collectively, the "Parties"), is entered into by and between the Parties, effective as of July 9, 2019 ("Amendment No. 1 Effective Date").

WHEREAS, pursuant to the Agreement, the University granted to the Company an exclusive license under the Licensed Patents and a non-exclusive license under the Licensed Know how to make, have made on Company’s behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the Territory in certain Indication Categories (as such terms are defined in the Agreement);

WHEREAS, some of the innovations licensed under the Agreement were funded in part by the Bill and Melinda Gates Foundation ("BMGF") pursuant to those certain grant agreements between BMGF and University of Washington Foundation dated [***] entitled [***] and [***] entitled [***] ("BMGF Agreements") and pursuant to which University made certain global access commitments to BMGF, and accordingly the University retains the right to require Company to grant Sublicenses in the Field of Use under the Licensed Patents on terms that are reasonable under the circumstances solely to allow the Licensed Products to be available and accessible at an affordable price in Developing Countries (as such terms are defined in the BMGF Agreements), or, if Company fails to offer to grant a license on reasonable terms, to grant the license itself to meet global access obligations agreed to by University under the BMGF Agreements in connection with funding of research that led to the Licensed Patents and such obligations are not reasonably satisfied by Company (the "BMGF Reservation of Rights");

WHEREAS, after the Effective Date, the University amended the BMGF Agreements ("Additional BMGF Agreements"), pursuant to which amendments, among other things BMGF provided funding for Supplemental Projects (as such term is defined in the Additional BMGF Agreements), and, subject to certain limitations, the University agreed to grant to BMGF a non-exclusive license with respect to developments funded by the Supplemental Projects to enable BMGF to achieve its global access goals (the "BMGF Humanitarian License");

WHEREAS, in the Additional BMGF Agreements, BMGF and the University agreed that the Indication Categories listed prior to the Amendment No. 1 Effective Date in the definition of the Field of Use in the Agreement are not subject to the Humanitarian License;

WHEREAS, pursuant to the Agreement, the University granted Company the right, from time to time, to re-order the priority of, and/or substitute a new replacement virus, bacteria and/or pathogen for any of the Indication Categories listed in the definition of the Field of Use by written notice to University designating the new order of Indication Categories and/or potential substitution (i.e., deletion of current and replacement with new) virus, bacteria and/or pathogen, subject to then-current availability (i.e., not
WHEREAS, the Parties now wish to amend the Agreement, effective as of the Amendment No. 1 Effective Date, to update Indication Categories and add an additional Indication Category in the Field of Use, and to amend the Performance Milestones and Performance Milestone Dates, update Financial Milestone payments, update table of percentages on Sublicense Consideration, and to add additional Licensed Patents;

WHEREAS, the Parties intend that the Indication Categories listed in the definition of the Field of Use prior to this Amendment No. 1 will continue to be subject to the BMGF Reservation of Rights to the extent applicable, and the Indication Categories that are added to the definition of the Field of Use pursuant to this Amendment No. 1 may be subject to the Humanitarian License, provided that the applicable conditions set forth in the Additional BMGF Agreements apply, including without limitation that University utilizes the Supplemental Projects funding to any such new Indication Categories; and

WHEREAS, as of the date hereof, University has not, to the best of UW CoMotion’s knowledge, utilized funding from BMGF, including without limitation Supplemental Projects funding, for research and/or development of vaccines for rabies or parainfluenza virus.

WHEREFORE the Parties, intending to be legally bound, acknowledge and agree as follows:

1. The rights and obligations of the Parties shall be governed by the terms and conditions of the Agreement, as heretofore amended by this Amendment No. 1. Capitalized terms not specifically defined herein shall have the meanings set forth in the Agreement. Capitalized terms defined herein shall have the meanings set forth in this Amendment 1.

2. “Field of Use” definition in Section 1 of the Agreement (Definitions) shall be amended and restated as:

"Field of Use" means prophylactic and/or therapeutic treatments in a defined “Indication Category”, specifically: for (i) respiratory syncytial virus ("RSV") (the “First Indication Category”), (ii) [***] (the “Second Indication Category”), (iii) [***] (the “Third Indication Category”), [***] (the “Fourth Indication Category”), (v) [***] (the “Fifth Indication Category”), and (vi) human metapneumovirus (the “Sixth Indication Category”). These viruses, bacteria and pathogens listed within each Indication Category represent a preliminary indication of Company’s priorities and targeted indications within the broad category of commercially attractive vaccines. Accordingly, University grants Company the right, from time to time, to re-order the priority of, and/or substitute a new replacement virus, bacteria and/or pathogen for any of the Indication Categories above by written notice to University ("Updated Indication Designation") designating the new order of Indication Category(ies) and/or potential substitution (i.e., deletion of current and replacement with new) virus, bacteria and/or pathogen, subject to then-current availability (i.e., not exclusively licensed to a Third Party) of the replacement virus, bacteria and/or pathogen (as applicable) and University's willingness to license such rights. The Parties agree that such Updated Indication Designation(s) shall be captured in a written amendment per Section 13.1 “Amendment and Waiver”. 
3. "Licensed Know-How" definition in Section 1 of the Agreement (Definitions) shall be amended and restated as:

"Licensed Know-How" means University knowledge or intangible work that: (a) was developed in the laboratory of Principal Investigator, (b) exists as of the Amendment No. 1 Effective Date, (c) is relevant to utilizing any of the Licensed Patents, (d) is unpublished, (e) is not subject to patent or copyright protection, and (f) is not covered by Third Party rights that would prevent delivery to Company.

4. Section 2.4 of the Agreement (Improvements) shall be amended and restated as:

Improvements. For a period of [***] after the Amendment No. 1 Effective Date, University will provide reasonable written notice to Company of any Improvements to the Licensed Patents. Company will have the option, exercisable within ninety (90) days of receipt of University's notice of such improvement, to add such Improvements to the Licensed Patents. If Company exercises its option to add Improvements to the Licensed Patents, the Licensed Patents thereafter will include the applicable New Patent Applications, and the Parties will revise Exhibit A “Start-Up License Schedule” to include such Improvements.

5. A new section, Section 3.4 of the Agreement (BMGF Humanitarian License), and related new exhibit, Exhibit E, shall be included as below and attached to this Amendment No. 1:

BMGF Humanitarian License. Company acknowledges that, with respect to indications other than the First Indication Category (RSV), the Second Indication Category ([***]), or the Third Indication Category ([***]), the University has agreed to the following grantback (the "Humanitarian License") pursuant to the Additional BMGF Agreements, and the University will retain rights under the Licensed Patents and License Know-How necessary to comply with the Humanitarian License for such other indications (where You is the University), subject to the terms and conditions contained in Exhibit E:

Subject to applicable laws and for the purpose of achieving Global Access, You grant the Foundation a nonexclusive, perpetual, irrevocable, worldwide, royalty-free, fully paid up, sublicensable license to make, use, sell, offer to sell, import, distribute, copy, create derivative works, publicly perform, and display Funded Developments and Essential Background Technology. "Essential Background Technology" means Background Technology that is: (a) owned, controlled, or developed by You, or in-licensed with the right to sublicense; and (b) either incorporated into a Funded Development or reasonably required to exercise the license to a Funded Development. If You demonstrate to the satisfaction of the Foundation that Global Access can best be achieved without this license, the Foundation and You will make good faith efforts to modify or terminate this license, as appropriate.

Notwithstanding anything to the contrary, BMGF and University agreed in the Additional BMGF Agreements that the original Indication Categories listed in the definition of the Field of Use in the Agreement as originally executed, i.e., the Indication Categories listed prior to the Amendment No. 1 Effective Date, are not subject to the Humanitarian License. The Indication
Categories that remain in the Field of Use as of the Amendment No. 1 Effective Date and that are not subject to the Humanitarian License are the First Indication Category (RSV), the Second Indication Category ([***]), and the Third Indication Category ([***]).

6. Section A1.1 of Exhibit A shall be amended to include additional Licensed Patents:

<table>
<thead>
<tr>
<th>UW Reference #</th>
<th>Application Serial #</th>
<th>Filing Date</th>
<th>Type</th>
<th>Owner</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>[***]</td>
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<td>[***]</td>
</tr>
</tbody>
</table>

7. Section A2 of Exhibit A shall be amended and restated as:

**A2. Performance Milestones (Section 5.1 “Performance Milestones”):** Subject to Company’s right to renegotiation or Company’s payment of a fee for extension as set forth in Article 5 “Commercialization” of the Agreement, Company will perform, or shall cause to happen or be performed, the following Performance Milestones:

<table>
<thead>
<tr>
<th>Performance Milestone and Performance Milestone Date for First Indication Category in the Field of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>[***]</td>
</tr>
<tr>
<td>A2.1.1 Performance Milestone 1</td>
</tr>
<tr>
<td>A2.1.2 Performance Milestone 2</td>
</tr>
<tr>
<td>A2.1.3 Performance Milestone 3</td>
</tr>
<tr>
<td>A2.1.4 Performance Milestone 4</td>
</tr>
<tr>
<td>A2.1.5 Performance Milestone 5</td>
</tr>
</tbody>
</table>

4
<table>
<thead>
<tr>
<th>Performance Milestone and Performance Milestone Date for Second Indication Category in the Field of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2.1.6 Performance Milestone 6</td>
</tr>
<tr>
<td>A2.1.7 Performance Milestone 7</td>
</tr>
<tr>
<td>A2.2.1 Performance Milestone 1</td>
</tr>
<tr>
<td>A2.2.2 Performance Milestone 2</td>
</tr>
<tr>
<td>A2.2.3 Performance Milestone 3</td>
</tr>
<tr>
<td>A2.2.4 Performance Milestone 4</td>
</tr>
<tr>
<td>A2.2.5 Performance Milestone 5</td>
</tr>
<tr>
<td>A2.2.6 Performance Milestone 6</td>
</tr>
<tr>
<td>A2.2.7 Performance Milestone 7</td>
</tr>
</tbody>
</table>

5
### Performance Milestone and Performance Milestone Date for Third Indication Category in the Field of Use

<table>
<thead>
<tr>
<th>A2.3.1</th>
<th>Performance Milestone 1</th>
<th>[***]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2.3.2</td>
<td>Performance Milestone 2</td>
<td>[***]</td>
</tr>
<tr>
<td>A2.3.3</td>
<td>Performance Milestone 3</td>
<td>[***]</td>
</tr>
<tr>
<td>A2.3.4</td>
<td>Performance Milestone 4</td>
<td>[***]</td>
</tr>
<tr>
<td>A2.3.5</td>
<td>Performance Milestone 5</td>
<td>[***]</td>
</tr>
<tr>
<td>A2.3.6</td>
<td>Performance Milestone 6</td>
<td>[***]</td>
</tr>
<tr>
<td>A2.3.7</td>
<td>Performance Milestone 7</td>
<td>[***]</td>
</tr>
</tbody>
</table>

### Performance Milestone and Performance Milestone Date for Fourth Indication Category in the Field of Use

<table>
<thead>
<tr>
<th>A2.4.1</th>
<th>Performance Milestone 1</th>
<th>[***]</th>
</tr>
</thead>
</table>
A2.4.2 Performance Milestone 2

A2.4.3 Performance Milestone 3

A2.4.4 Performance Milestone 4

A2.4.5 Performance Milestone 5

A2.4.6 Performance Milestone 6

A2.4.7 Performance Milestone 7

A2.5.1 Performance Milestone 1

A2.5.2 Performance Milestone 2

A2.5.3 Performance Milestone 3

Performance Milestone and Performance Milestone Date for Fifth Indication Category in the Field of Use

[***]
<table>
<thead>
<tr>
<th>Milestone Code</th>
<th>Milestone Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2.5.4</td>
<td>Performance Milestone 4</td>
</tr>
<tr>
<td>A2.5.5</td>
<td>Performance Milestone 5</td>
</tr>
<tr>
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<td>Performance Milestone 6</td>
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<td>A2.5.7</td>
<td>Performance Milestone 7</td>
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<tr>
<td>A2.6.1</td>
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<td>Performance Milestone 4</td>
</tr>
<tr>
<td>A2.6.5</td>
<td>Performance Milestone 5</td>
</tr>
<tr>
<td>A2.6.6</td>
<td>Performance Milestone 6</td>
</tr>
</tbody>
</table>
8. Section A3.4 of Exhibit A shall be amended and restated as:

A3.4 Financial Milestone Payments. Company will pay to University the following non-cumulative, non-creditable, and non-refundable, one-time Performance Milestone achievement payments for each of First Indication Category, Second Indication Category, Third Indication Category, Fourth Indication Category, Fifth Indication Category, and Sixth Indication Category within thirty (30) days of achieving the corresponding Performance Milestone, whether achieved by Company or a Sublicensee:

- Performance Milestone 4 in A2.1.4, A2.2.4, A2.3.4, A2.4.4, A2.5.4, or A2.6.4
- Performance Milestone 5 in A2.1.5, A2.2.5, A2.3.5, A2.4.5, or A2.5.5
- Performance Milestone 6 in A2.1.6, A2.2.6, A2.3.6, A2.4.6, or A2.5.6
- Cumulative Net Sales of [***] for First Indication Category, Second Indication Category, Third Indication Category, Fourth Indication Category, Fifth Indication Category, or Sixth Indication Category

For the avoidance of doubt, total Financial Milestones for each Indication Category shall not exceed [***] and total Financial Milestones under this Agreement shall not exceed [***]. Each Financial Milestone shall be payable only once for the applicable Indication Category even if such milestone is achieved by more than one Licensed Product.

9. The table in Section A3.6 of Exhibit A shall be amended and restated as:

<table>
<thead>
<tr>
<th>Performance Milestone Has Been Achieved at the Date of Execution of the Sublicense</th>
<th>Sublicense Consideration Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3.6.1 Milestone 1 in A2.1.1, A2.2.1, A2.3.1, A2.4.1, A2.5.1, or A2.6.1</td>
<td>[***]</td>
</tr>
</tbody>
</table>
A3.6.2  
Milestone 2  
Performance Milestone 2 in A2.1.2, A2.2.2, A2.3.2, A2.4.2, A2.5.2, or A2.6.2

A 3.6.3  
Milestone 3  
Performance Milestone 3 in A2.1.3, A2.2.3, A2.3.3, A2.4.3, A2.5.3, or A2.6.3

A3.6.4  
Milestone 4  
Performance Milestone 4 in A2.1.4, A2.2.4, A2.3.4, A2.4.4, A2.5.4, or A2.6.4

A3.6.5  
Milestone 5  
Performance Milestone 5 in A2.1.5, A2.2.5, A2.3.5, A2.4.5, A2.5.5, or A2.6.5

A3.6.6  
Milestone 6  
Performance Milestone 6 in A2.1.6, A2.2.6, A2.3.6, A2.4.6, A2.5.6, or A2.6.6

A3.6.7  
Milestone 7  
Performance Milestone 7 in A2.1.7, A2.2.7, A2.3.7, A2.4.7, A2.5.7, or A2.6.7

10. All other terms and conditions of the Agreement shall remain in full force and effect.

11. This Amendment No. 1 may be executed by facsimile, pdf, or duplicate originals, and may be executed in several counterparts, all of which taken together will constitute effective execution.

[Signature Page Follows]
IN WITNESS WHEREOF, the Parties have executed this Amendment No. 1 effective as of the Amendment No. 1 Effective Date.

UNIVERSITY OF WASHINGTON

By: /s/ Dennis Hanson
Name: Dennis Hanson
Title: Associate Director, Innovation Development
Date: 7/19/2019

ICOSAVAX, INC.

By: /s/ Adam Simpson
Name: Adam Simpson
Title: Chief Executive Officer
Date: 7/19/2019
Amendment No. 2 to

Exclusive License Agreement #[***]

This amendment number two ("Amendment No. 2") to the Exclusive License Agreement #[***], such agreement effective as of June 29, 2018, as amended by Amendment No. 1 to Exclusive License Agreement #[***], effective as of July 19, 2019, (collectively, the “Agreement”) by and between the University of Washington, a public institution of higher education and an agency of the state of Washington ("University"), and Icosavax, Inc., a corporation organized under the laws of the state of Delaware ("Company") (collectively, the “Parties”), is entered into by and between the Parties, effective as of November 13, 2020 ("Amendment No. 2 Effective Date").

WHEREAS, pursuant to the Agreement, the University granted to the Company an exclusive license under the Licensed Patents and a non-exclusive license under the Licensed Know to make, have made on Company’s behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the Territory in certain Indication Categories (as such terms are defined in the Agreement);

WHEREAS, pursuant to Section 2.4 of the Agreement, the Parties agreed that, during a period of [***] after the Amendment No. 1 Effective Date, University will provide reasonable written notice to Company of any Improvements to the Licensed Patents, and Company will have the option, exercisable within ninety (90) days of receipt of University’s notice of such Improvement, to add such Improvements to the Licensed Patents;

WHEREAS, University has so notified Company of an Improvement to the Licensed Patents;

WHEREAS, pursuant to Section 2.4 of the Agreement, the Parties agreed that, if Company exercises its option to add Improvements to the Licensed Patents, the Licensed Patents thereafter will include the applicable New Patent Applications, and the Parties will revise Exhibit A “Start-Up License Schedule” to include such Improvements;

WHEREAS, the Parties agree that Company has exercised its option to add such Improvements to the Licensed Patents, and accordingly the Licensed Patents will include the applicable New Patent Applications; and

WHEREAS, the Parties would like to revise Exhibit A “Start-Up License Schedule” to include such Improvements and New Patent Applications.

WHEREFORE the Parties, intending to be legally bound, acknowledge and agree as follows:

1. The rights and obligations of the Parties shall be governed by the terms and conditions of the Agreement, as heretofore amended by this Amendment No. 2. Capitalized terms not specifically defined herein shall have the meanings set forth in the Agreement. Capitalized terms defined herein shall have the meanings set forth in this Amendment No. 2.

2. Section A1.1 of Exhibit A of the Agreement shall be deleted and replaced with the following:

1
3. All other terms and conditions of the Agreement shall remain in full force and effect.

4. This Amendment No. 2 may be executed by facsimile, pdf, or duplicate originals, and may be executed in several counterparts, all of which taken together will constitute effective execution.

[Signature Page Follows]
IN WITNESS WHEREOF, the Parties have executed this Amendment No. 2 effective as of the Amendment No. 2 Effective Date.

UNIVERSITY OF WASHINGTON

By: /s/ Dennis Hanson
Name: Dennis Hanson
Title: Associate Director, Innovation Development
Date: 11/13/2020

ICOSAVAX, INC.

By: /s/ Adam Simpson
Name: Adam Simpson
Title: CEO
Date: 11/13/2020
LICENSE AND EXCLUSIVE OPTION AGREEMENT

BETWEEN

ICOSAVAX, INC.

AND

UNIVERSITY OF WASHINGTON

FOR

COMPUTATIONALLY DESIGNED NANOPARTICLES AND VACCINES BASED UPON SUCH DESIGNS

UW COMOTION AGREEMENT REF. [***]
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This License and Exclusive Option Agreement (this “Agreement”), effective as of the date of last signature (the “Effective Date”), is made and entered into between the University of Washington, a public institution of higher education and an agency of the state of Washington, ("University"), and Icosavax, Inc., a for profit corporation under the laws of Delaware ("Company").

BACKGROUND

A. Certain innovations relating to computationally designed two-component icosahedral protein nanoparticles; two-component tetrahedral protein nanoparticles; and methods of multivalent antigen presentation on designed protein nanomaterials were made in the University laboratory of Dr. David Baker, a faculty member in the Department of Biochemistry and an employee of the Howard Hughes Medical Institute ("HHMI"), and in the University laboratory of Dr. Neil King ("Principal Investigator"), who was a research associate in the Baker laboratory and now is a faculty member in the Department of Biochemistry.

B. HHMI assigned its rights in such innovations to University, subject to the HHMI License (as defined herein). University now solely owns certain intellectual property rights in such innovations as listed in Exhibit A “License Schedule” to this Agreement. Thus, University has the right to license to others certain rights to use and practice such intellectual property. University is willing to grant those rights so that such innovations may be developed for use in the public interest.

C. The innovations licensed under this Agreement were funded in part by the Bill and Melinda Gates Foundation ("BMGF") pursuant to those certain grant agreements between BMGF and University of Washington Foundation dated [***] entitled [***] and [***] entitled [***], as amended (collectively, the “BMGF Agreements”) and pursuant to which University made certain global access commitments to BMGF.

D. University and Company entered into the Exclusive License Agreement [***], such agreement effective as of June 29, 2018, as amended ("Other License Agreement"), pursuant to which University granted to Company a license under Licensed Know-How and the Licensed Patents in the Field of Use (as defined in the Other License Agreement).

E. University and Company entered into an MTA (as defined herein), pursuant to which University granted to Company a right to use Material (as defined in the MTA) in anticipation of entering into this Agreement.

F. Company desires that University grant it a license and exclusive option under such intellectual property rights for the CV Field of Use (as defined herein), and University is willing to grant such a license and exclusive option, on the terms set forth in this Agreement. University desires Company to commercialize the intellectual property subject to this Agreement initially for pandemic applications and ultimately for commercial applications through the license granted hereunder.
The Parties agree as follows:

1. **Definitions**

   “**Acquisition**” means (a) the sale by Company of all, or substantially all of, its assets in transaction to a Third Party at arm's length, (b) the sale, transfer, or exchange by the shareholders, partners, or equity owners of Company of a majority interest in Company's outstanding stock in an arm's length transaction to a Third Party, or (c) the merger of Company with a Third Party at arm's length; provided, however, that in no event will (y) any bona fide equity financing for the primary purpose of raising capital for corporate purposes, or (z) any license, or any option to obtain a license, relating to all or substantially all of Company's rights (whether such rights pertain to this Agreement or to Company’s rights more generally) that is granted to a Third Party (whether or not collaborative or partnership activities also will be conducted), be considered an Acquisition under this Agreement. For the avoidance of doubt, the Parties agree that any license or option to obtain a license, as stipulated in (z) above, shall be considered a Sublicense if such license or option to obtain a license includes sublicensed rights under this Agreement.

   “**Combination Product**” means a product sold in a form containing a Licensed Product and at least one other product, component, or ingredient which could be sold separate and apart from the Licensed Product and which is not required for the function of the Licensed Product.

   “**Confidential Information**” means any information or materials of a Party not generally known to the public, including any information comprised of those materials and Company's business plans or reports. Confidential Information does not include any information that: (a) is, or becomes, part of the public domain through no fault of receiving Party; (b) is known to receiving Party prior to the disclosure by the disclosing Party, as evidenced by documentation; (c) is publicly released as authorized under this Agreement by University, its employees or agents; (d) is subsequently obtained on a non-confidential basis by receiving Party from a Third Party who is authorized to have and disclose such information; or (e) is independently developed by receiving Party without reliance on any portion of the Confidential Information received from the disclosing Party and without any breach of this Agreement as evidenced by documentation.

   “**CV Field of Use**” means prophylactic and/or therapeutic treatments for the coronavirus known as SARS-CoV-2.

   “**Developing Countries**” means the list of countries set forth on Exhibit C.

   “**Distributor**” means a distributor, reseller or OEM to which a Licensed Party sells a Licensed Product for resale of Licensed Product by the Distributor, and where Distributor has no other rights with respect to the Licensed Rights other than to resell or otherwise distribute Licensed Products (including but not limited to integrated or bundled with other products or services), and for which resale or distribution such Licensed Party receives no further consideration (including but not limited to royalties and/or commissions) beyond the price for the initial sale of Licensed Product to the Distributor.

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UW CoMotion Ref. [***]
“Event of Force Majeure” means an unforeseeable act that prevents or delays a Party from performing one or more of its duties under this Agreement and that is outside of the reasonable control of the affected Party. An Event of Force Majeure includes acts of war or of nature, insurrection and riot, and labor strikes. An Event of Force Majeure does not include a Party’s inability to obtain a Third Party’s consent to any act or omission, unless the inability was caused by a separate Event of Force Majeure.

“Improvements” means patentable inventions that (a) are owned by University after the Effective Date and not encumbered by third party rights that would prevent delivery to Company, (b) would require a license under the exclusively Licensed Rights to practice, (c) were developed in the laboratory of the Principal Investigator, and identified to UW CoMotion as Improvements falling under this license, and (d) do not include an HHMI employee as an inventor under the applicable patent law.

“Licensed Know-How” means University knowledge or intangible work that: (a) was developed in the laboratory of Principal Investigator, (b) exists as of the Effective Date, (c) is relevant to utilizing any of the Licensed Patents, (d) is unpublished, (e) is not subject to patent or copyright protection, and (f) is not covered by Third Party rights that would prevent delivery to Company.

“Licensed Party” mean Company or any of its Sublicensees.

“Licensed Patents” means (a) the patents and patent applications listed in Exhibit A1.1 “Licensed Patents”, all (b) divisions, continuations, and claims in continuations-in-part that are entitled to claim priority to, or that share a common priority claim with, and are directed to subject matter specifically described in, any item listed on Exhibit A1.1 “Licensed Patents”; (c) claims of extensions, renewals, substitutes, re-examinations and re-issues of any of the items in (a) or (b) that are directed to subject matter specifically described in any items listed on Exhibit A1.1; and (d) claims of foreign counterparts of any of the items in (a), (b), or (c) that are directed to subject matter specifically described in any items listed on Exhibit A1.1, wherever and whenever filed.

“Licensed Product” means any method, process, composition, product, service, or component part thereof that would, but for the granting of the rights set forth in this Agreement, infringe a Valid Claim contained in the Licensed Patents.

“Licensed Rights” means all rights granted to Company under Article 2 “License and Option Grants” of this Agreement.

“MTA” means the Materials Transfer Agreement [***] between University and Company entered into as of May 13, 2020.

“Net Sales” means the gross amount received by a Licensed Party from Distributors, customers, end users and other Third Parties for sales, leases, and other dispositions of Licensed Products, less [***]. On sales of Licensed Products by made in other than an arm’s length transaction, the value of the Net Sales attributed to such transaction will be equal to the Net Sales that would have been received in an arm’s length transaction, based on sales of like quantity and quality of Licensed Products sold on or about the time of the transaction. Net Sales does not include sale, lease, disposition or other transfer of Licensed Products among or between Company, Subsidiaries and Sublicensees for the purpose of subsequent
resale to a Third Party, but does include subsequent resale to such Third Party. For avoidance of doubt Net Sales are calculated on sales by a Licensed Party to Distributor, and not on the subsequent sale by Distributor.

Net Sales of Combination Products will be calculated by multiplying actual Net Sales of such Combination Products by the fraction A/(A+B), where “A” is the Net Sales price of the Licensed Product if sold or performed separately, and “B” is the Net Sales price of the other product, component or ingredient in the Combination Product if sold separately. If, on a country-by-country basis, the other product, component or ingredient in the Combination Product is not sold separately in said country, Net Sales for the purpose of determining running royalties of the Combination Product shall be calculated by multiplying actual Net Sales of the Combination Product by the fraction A/C where “A” is the Net Sales price of the Licensed Product, if sold separately, and “C” is the Net Sales price of the Combination Product.

If, on a country-by-country basis, neither the Licensed Product, nor the other product, component or ingredient in the Combination Product, is sold separately in said country, Net Sales for the purpose of determining running royalties of the Combination Product shall be determined in good faith by the Parties. A Combination Product may include a Licensed Product and any separate product, component or ingredient or service developed by or in-licensed by a Licensed Party from a Third Party provided it is a Combination Product as defined in this Agreement.

“New Patent Applications” means patents and patent applications which claim Improvements and that the Company elects under Section 2.4 “Improvements” to include in the Licensed Patents.

“Option Effective Date” means the fifth (5th) anniversary of the Effective Date if Company has provided an Option Exercise notice to University pursuant to Section 2.1.2.

“Option Territory” means the United States, Canada, Mexico, and the countries of Europe (including without limitation Switzerland and United Kingdom of Great Britain and Northern Ireland), and their respective territories and possessions.

“Parties” means University and Company and “Party” means either University or Company.

“Patent Expenses” means all reasonable costs (including attorneys’ and application fees) incurred by University in accordance with this Agreement to apply for, prosecute and maintain Licensed Patents, including but not limited to the costs of interferences, oppositions, inter partes review and re-examinations. Costs for interferences, oppositions, inter partes review, re-examinations and other complex and expensive patent-related proceedings will be incurred in consultation with Company, pursuant to the processes of Article 4 “Applications and Patents”. Patent Expenses also include reimbursement for in-house costs to apply for, prosecute and maintain Licensed Patents; provided they are for activities that would otherwise have been performed by outside counsel at an equal or greater expense.

“Performance Milestone” means any of the milestones described in Section A2 “Performance Milestones” of attached Exhibit A “License Schedule”.

“Performance Milestone Date” means the date by which a Performance Milestone is to be achieved as
set forth in Section A2 “Performance Milestones” of attached Exhibit A “License Schedule”, as such date may be extended pursuant to Section 5.1 “Performance Milestones” or as otherwise agreed upon by the Parties.

“Permitted Sublicense” means any arm’s length agreement with a Third Party commercialization partner, manufacturer, contract research organization or contract researcher/developer with whom a Licensed Party contracts for commercialization, manufacture, research or development of Licensed Products on Licensed Party’s behalf, and where such Third Party has no other rights with respect to the Licensed Rights other than to manufacture, research and/or develop on behalf of Licensed Party.

“Permitted Sublicensee” means a Third Party holding a Permitted Sublicense.

“Sales Report” means a report in substantially the form set forth in Exhibit B “Royalty Report Form”.

“Sublicense” means the grant by a Licensed Party to a Third Party of any license, option, first right to negotiate, or other right granted under the Licensed Rights, in whole or in part. The grant of the right to resell to a Distributor and the grant of a license or other right to use a Licensed Product to an end-user, where the end user has no other rights with respect to the Licensed Rights other than to be an end user of the Licensed Product, will not be a Sublicense and will be treated solely under Net Sales.

“Sublicensee” means a Third Party holding a Sublicense under the Licensed Rights.

“Sublicense Consideration” means all consideration, including but not limited to [***]; but excluding royalties on Net Sales, received by Company from each Sublicensee for the grant of a Sublicense. For avoidance of doubt, consideration paid to Company by Sublicensees for the following shall not be deemed Sublicense Consideration: [***]. For clarity, University acknowledges and agrees that, if Company should enter into an agreement with a Third Party that includes a Sublicense as part, but not all, of the subject matter of such agreement, then the total non-royalty consideration paid to Company under such Third Party agreement will not be deemed Sublicense Consideration merely because a Sublicense is granted (since only a portion of the consideration received is for the grant of the Sublicense).

Furthermore, to the extent that this Agreement has not been assigned by Company prior to the date Sublicense Consideration is received by Company, [***], shall be excluded from Sublicense Consideration, as stipulated in the paragraph above in (a)(ii). Company will provide to University a copy of the Operating Expense Budget together with a copy of the executed Sublicense as required by Section 2.3 “Sublicense Rights”.

“Territory” means worldwide, excluding South Korea.

“Third Party” means an individual or entity other than University and Company.

“Valid Claim” means (a) a claim in an issued, unexpired United States or granted foreign patent included in the Licensed Patents that: (i) has not been held invalid, unpatentable, or unenforceable by a decision of a court or other governmental agency of competent jurisdiction and not subject to appeal (ii) has not been admitted to be invalid or unenforceable through reissue, inter partes review, disclaimer, or
otherwise, (iii) has not been lost through an interference, reexamination, or reissue proceeding; or (b) a pending claim of a pending patent application included in the Licensed Patents.

**Additional Definitions.** The following terms have the meanings set forth in the corresponding sections of this Agreement, as described below.

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2. **LICENSE AND OPTION GRANTS.** Subject to the terms and conditions of this Agreement:

2.1 **Patent License and Option.**

2.1.1 **Non-exclusive license.** University hereby grants to Company a non-exclusive license under the Licensed Patents to make, have made on Company's behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the Territory in the CV Field of Use. Unless otherwise terminated under Article 9 “Termination”, the term of this non-exclusive patent license will begin on the Effective Date and will continue until the date on which all Valid Claims expire or are held invalid or unenforceable by a court of competent jurisdiction from which no appeal can be taken, provided that such license will expire with respect to Licensed Products in the Option Territory on the Option Effective Date.

2.1.2 **Option for exclusive license, and if exercised, exclusive license.** University hereby grants to

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Company an exclusive option to obtain an exclusive (subject only to any rights of the government described in Section 2.6 “The United States Government's Rights”, to rights of University described in Article 3 “Rights of University; Limitations”, the rights of BMGF described in Sections 3.3 “Reservation of Rights for Humanitarian Purposes” and 3.4 “BMGF Humanitarian License”, and to rights of HHMI described in Section 2.8 “HHMI Research Use Rights”) royalty-bearing (as set forth in Section 6.1) license under the Licensed Patents to make, have made on Company's behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the CV Field of Use in the Option Territory. Company may exercise such option by providing University a written notice (the “Option Exercise”) [***]. Unless otherwise terminated under Article 9 “Termination”, the term of this exclusive patent license will begin on the Option Effective Date and will continue until all Valid Claims expire or are held invalid or unenforceable by a court of competent jurisdiction from which no appeal can be taken. Assuming Company provides the Option Exercise notice, such exclusive license will become effective automatically on the Option Effective Date.

2.2 Know-How License. University hereby grants to Company a non-exclusive, worldwide license to use Licensed Know-How. Unless otherwise terminated under Article 9 “Termination”, the term of this license will begin on the Effective Date and will continue until all rights under Licensed Patents are terminated.

2.3 Sublicense Rights. Company has the right, exercisable during the term of this Agreement, to Sublicense its Licensed Rights under this Agreement. Company may not grant Sublicensees the right to enforce Licensed Rights. Company will remain responsible for its obligations under this Agreement. Except for Permitted Sublicensees, Company will ensure that the Sublicense agreement: (a) contains terms and conditions that require Sublicensee to comply with the terms and conditions of this Agreement applicable to Sublicensees, including a release substantially similar to that provided by Company in Section 10.1 “Company's Release”; a warranty substantially similar to that provided by Company in Section 11.1 “Authority”; University disclaimers and exclusions of warranties under Sections 11.3 and 11.4 “No Known Infringement” and “Disclaimer”; and limitations of remedies and damages substantially similar to those provided by Company in Sections 12.1 “Remedy Limitation” and 12.2 “Damage Cap”; (b) specifically incorporates provisions of this Agreement regarding obligations pertaining to indemnification, use of names and insurance. Each Sublicense agreement must also contain obligations, terms and conditions in favor of HHMI or the HHMI Indemnitees, as applicable, that are substantially similar to those undertaken by Company in favor of HHMI or the HHMI Indemnitees, as applicable, under this Agreement and intended for the protection of the HHMI Indemnitees, including, without limitation, the obligations, terms and conditions regarding indemnification, insurance and HHMI's third party beneficiary status. Company will provide University with a copy of the executed Sublicense, excluding any Permitted Sublicense agreement, within thirty (30) days after its execution. Company will not enter into any Sublicense agreement if the terms of such agreement are inconsistent in any material respect with the material terms of this Agreement. Any Sublicense made in violation of this Section 2.3 “Sublicense Rights” will be void and will constitute an event of default that requires remedy under Section 9.2 “Termination by University”.

2.4 Improvements. For a period of [***] after the Effective Date, University will provide reasonable written notice to Company of any Improvements to the Licensed Patents. Company will have the option, exercisable within ninety (90) days of receipt of University's notice of such Improvement, to add such

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Improvements to the Licensed Patents. If Company exercises its option to add improvements to the Licensed Patents, the Licensed Patents thereafter will include the applicable New Patent Applications, and the Parties will revise Exhibit A “License Schedule” to include such improvements.

2.5 Limitation of Rights. No provision of this Agreement grants to Company, by implication, estoppel or otherwise, any rights other than the rights expressly granted it in this Agreement under the Licensed Rights, including any license rights under any other University-owned technology, copyright, know-how, patent applications, or patents, or any ownership rights in the Licensed Rights.

2.6 The United States Government’s Rights. Inventions covered in the Licensed Patents arose, in whole or in part, from federally supported research and the federal government of the United States of America has certain rights in and to such inventions as those rights are described in Chapter 18, Title 35 of the United States Code and accompanying regulations, including Part 401, Chapter 37 of the Code of Federal Regulation. The Parties’ rights and obligations under this Agreement to any government-funded inventions, including the grant of license set forth in Section 2.1 “Patent License”, are subject to the applicable terms of the aforementioned United States laws. The U.S. Government is entitled, as a right, under these Chapters: (a) to a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on the behalf of the U.S. Government any of the federally funded inventions throughout the world and (b) to exercise march in rights on the federally funded inventions. Company further agrees that, to the extent required by Title 35 Section 204 of the United States Code, it will substantially manufacture in the United States of America all products embodying or produced through the use of any such federally funded invention.

2.7 Rights to Wholly Owned Subsidiaries of Company. Company may extend rights granted to Company under this Agreement to wholly owned subsidiaries (“Subsidiaries”) of Company, provided that (a) Company is responsible for all acts of such Subsidiaries as if they were acts of the Company, (b) such Subsidiary is bound in writing to perform all obligations to University and HHMI of this Agreement other than making payments pursuant to Article 6 “Payments, Reimbursements, Reports, and Records”, as if such Subsidiary were Company, and (c) Company reports to University pursuant to Section 13.10 “Notices” that such Subsidiary will be exercising rights under this Agreement prior to such Subsidiary exercising any such rights under this Agreement. For avoidance of doubt, Company may perform any obligation of Subsidiary on Subsidiary’s behalf.

2.8 HHMI Research Use Rights. Company acknowledges that it has been informed that the Licensed Patents were developed, at least in part, by employees of HHMI and that HHMI has a paid-up, non-exclusive, irrevocable license to exercise any intellectual property rights with respect to the Licensed Patents for research purposes, with the right to sublicense to non-profit and governmental entities, but with no other rights to assign or sublicense (the “HHMI License”). This license is explicitly made subject to the HHMI License.

3. Rights of University; Limitations

3.1 University’s Rights. University reserves all rights not expressly granted to Company under this Agreement. University retains for itself and other not-for-profit research institutions, an irrevocable, nonexclusive right to practice Licensed Rights for research, instructional or educational purposes.
Expressly included, without limitation, within this University reservation of rights is the right to do the following in connection with such research, instructional or educational purposes: (a) to use the Licensed Rights in sponsored research or collaborative research with any Third Party, but not for any commercial purpose, and only to the extent that no such Third Party is granted any commercialization rights of any kind under the Licensed Rights or to commercialize Licensed Products, (b) to grant material transfer agreements that restrict the use of such materials to research, teaching or other scholarly activities, and that the transferee has no rights greater than University, and has no further right to transfer such materials to any Third Party, and (c) to publish any information included in the Licensed Rights or any other information that may result from University's research.

3.2 **Sublicensing Opportunities.** If a Third Party notifies University after the Option Effective Date that it wishes to license any of the exclusively Licensed Rights in any territory in which Company is unable or unwilling to develop and market a Licensed Product that University reasonably believes Company is not diligently pursuing, University will notify Company in writing of such Third Party's wish to obtain such license, and Company will have good faith discussions with such Third Party regarding the terms and conditions under which such Sublicense could be obtained. Company will not be obligated to provide such sublicense where it interferes with Company's business strategy; however, Company will not unreasonably withhold such Sublicense.

3.3 **Reservation of Rights for Humanitarian Purposes.** Consistent with 35 U.S.C. §200 et seq., University retains the right to require Company to grant Sublicenses to responsible applicants in the CV Field of Use under the Licensed Patents on terms that are reasonable under the circumstances; or, if Company fails to grant a license, to grant the license itself. The exercise of these rights by University will only be in exceptional circumstances and only if University determines (a) the action is necessary to meet health or safety needs that are not reasonably satisfied by Company; or (b) the action is necessary to meet requirements for public use specified by federal regulations, and such requirements are not reasonably satisfied by Company. In addition, University retains the right to require Company to grant Sublicenses in the CV Field of Use under the Licensed Patents on terms that are reasonable under the circumstances solely to allow the Licensed Products to be available and accessible at an affordable price in Developing Countries, or, if Company fails to offer to grant a license on reasonable terms, to grant the license itself to meet global access obligations agreed to by University under the BMGF Agreements in connection with funding of research that led to the Licensed Patents and such obligations are not reasonably satisfied by Company. University will not require the granting of a Sublicense, and will not grant the license itself, unless the responsible applicant has first negotiated in good faith with Company. Company shall be entitled to use the dispute resolution mechanisms of Section 13.4 “Escalation; Dispute Resolution”, including seeking an injunction from the court if mediation is unsuccessful, if Company wishes to dispute that University should be entitled to exercise its rights under this Section 3.3.

3.4 **BMGF Humanitarian License.** Company acknowledges that the University has agreed to the following grantback (the “**Humanitarian License**”) pursuant to the BMGF Agreements for the CV Field of Use, and the University will retain rights under the Licensed Patents and License Know-How necessary to comply with the Humanitarian License below (where You is the University), subject to the terms and conditions contained in Exhibit D:

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Subject to applicable laws and for the purpose of achieving Global Access, You grant the Foundation a nonexclusive, perpetual, irrevocable, worldwide, royalty-free, fully paid up, sublicensable license to make, use, sell, offer to sell, import, distribute, copy, create derivative works, publicly perform, and display Funded Developments and Essential Background Technology. “Essential Background Technology” means Background Technology that is: (a) owned, controlled, or developed by You, or in-licensed with the right to sublicense; and (b) either incorporated into a Funded Development or reasonably required to exercise the license to a Funded Development. If You demonstrate to the satisfaction of the Foundation that Global Access can best be achieved without this license, the Foundation and You will make good faith efforts to modify or terminate this license, as appropriate.

4. APPLICATIONS AND PATENTS

4.1 Pre-Agreement Patent Filings. Company has reviewed the Licensed Patents and as of the Effective Date is not aware of any basis to challenge or dispute the inventorship, validity, or enforceability of any of the claims made in the Licensed Patents.

4.2 Patent Prosecution Decisions. University and Company will consult on the preparation, filing and prosecution of the Licensed Patents (including, without limitation, on the selection of patent counsel). Patent counsel will be directed to deliver to Company all written and electronic communications to and from all patent offices and foreign counsel, and provide summaries of oral communications with patent offices. Provided Company is in compliance with Section A3.8 “Patent Expense Payment” of Exhibit A “License Schedule”, Company’s directions regarding patent preparation, filing and prosecution will be followed unless detrimental to University’s intellectual property rights. University and Company will consult prior to deciding in which countries to pursue patent protection and provided University is in compliance with Section A3.8 “Patent Expense Payment”, patents will be filed in all countries Company designates. University acknowledges the key role and value of the Licensed Patent portfolio to Company and the need for timely review and exchange of information between University and Company prior to Licensed Patent portfolio decisions. University will remain the client of record, and may at its own expense instruct patent counsel to take actions necessary to protect University’s intellectual property rights, if in University’s reasonable opinion, Company actions will result in a loss of rights; provided that for any such actions, if Company declines to reimburse University pursuant to Section A3.8 “Patent Expense Payment” of Exhibit A “License Schedule”, those applications and resultant patents will not be subject to this Agreement. In no event will Company file a patent application where all of the inventors are under University policy obligated to assign their rights in such patent application to University.

4.3 Assumption of Patent Prosecution and Maintenance. Provided Company is in compliance with Section A3.2 “Patent Expense Payment” of Exhibit A “License Schedule”, University will take all commercially reasonable steps to cause patents and patent applications within the Licensed Patents to be diligently prosecuted and maintained. If Company is in compliance, and University, against Company’s instructions, decides to abandon or allow to lapse any patent application or any claim of any patent included in the Licensed Patents or not pursue patent protection for any foreign patent mutually agreed upon by the Parties under Section 4.2 “Patent Prosecution Decisions”, University will notify Company at least sixty (60) days before such decision would be effective, and Company will have the right to file,
prosecute, and maintain, as applicable, such patent or patent application at Company’s expense provided Company shall keep University informed of such activity. Company may thereafter abandon or allow to lapse any or all patents or patent applications for which it is responsible. Company will notify University of any abandoned or lapsed patents within thirty (30) days of such abandonment or lapse.

5. COMMERCIALIZATION

5.1 Performance Milestones. Company will, directly or through its Subsidiaries or Sublicensees, use its commercially reasonable efforts, consistent with sound and reasonable business practices and judgment, to commercialize the Licensed Rights and to make and sell Licensed Products as soon as practicable and to maximize sales thereof. Company shall perform, or shall cause to happen or be performed, the Performance Milestones in accordance with the Performance Milestone Dates.

5.2 Renegotiation of Performance Milestones. If Company determines that it will be unable to achieve a Performance Milestone by the applicable Performance Milestone Date, Company will so notify University in advance of the Performance Milestone Date, and, provided Company demonstrates it is diligently pursuing commercialization of at least one Licensed Product, Company shall have the option of negotiating in good faith an appropriate new Performance Milestone and/or related Performance Milestone Date to accommodate for the reasonable length of the delay. In addition, University agrees that the Performance Milestone Dates shall be extended by the number of days of delay caused by any event reasonably deemed out of the control of Company, [***], including without limitation an Event of Force Majeure, the actions or inactions of any regulatory authority necessary for Company’s plans to commercialize the Licensed Rights, or inability to enroll clinical trials due to lack of eligible participants. If the Parties are unable to agree on a renegotiated Performance Milestone [***], then University may proceed with its termination rights under Section 9.2 “Termination by University”, subject to both Company and University having the right to seek mediation under Section 13.4 “Escalation; Dispute Resolution”.

5.3 Commercialization Reports. Throughout the term of this Agreement and during the Sell-Off Period, and within thirty (30) days of December 31st of each year, Company will deliver to University written reports of Company’s and Sublicensees’ efforts and plans to develop and commercialize the innovations covered by the Licensed Rights and to make and sell Licensed Products. Company will have no obligation to prepare commercialization reports in years where (a) Company delivers to University a written Sales Report with active sales, and (b) Company has fulfilled all Performance Milestones. In relation to each of the Performance Milestones each commercialization report will include sufficient information to demonstrate achievement of those Performance Milestones and will set out timeframes and plans for achieving those Performance Milestones which have not yet been met.

5.4 Company Information. Throughout the term of this Agreement, Company shall provide the names of, and sufficient contact information to identify, any Permitted Sublicensees within thirty (30) days of University’s written request.

6. PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS

6.1 Payments. Company will deliver to University the payments specified in Section A3 “Payments”
of attached Exhibit A “License Schedule”. Company will make such payments by check, wire transfer, or any other mutually agreed-upon and generally accepted method of payment. All checks to University will be made payable to “University of Washington” and will be mailed to the address specified in Section 13.10 “Notices” and will reference the University agreement number [***].

All wire or electronic fund transfers must be confirmed via email referencing the above agreement number to: ipfin@uw.edu

Wire transfers:
Electronic Fund Transfer (ACH):

[***]

6.2 Currency and Checks. All computations and payments made under this Agreement will be in United States dollars. The exchange rate for the currency into dollars as reported in The Wall Street Journal as the New York foreign exchange mid-range rate on the last business day of the month in which the transaction was entered into will be used for determining the dollar value of transactions conducted in non-United States dollar currencies.

6.3 Late Payments. University may charge Company a late fee for all amounts owed to University that are more than thirty (30) days overdue; provided that, for any portion of any such amount that is the subject of a bona fide, good faith dispute by Company (the mechanism of such dispute governed by Section 13.4 “Escalation; Dispute Resolution”), the late fee shall not apply to such disputed portion unless and until the dispute is decided in University’s favor. The late fee will be computed as [***], compounded monthly, as set forth by The Wall Street Journal (Western edition) on the date on which the payment is due, of the outstanding, unpaid balance. The payment of a late fee will not foreclose or limit University from exercising any other rights it may have as a consequence of the lateness of any payment.

6.4 Sales Reports. Within sixty (60) days after the last day of each calendar quarter commencing with the calendar quarter after the Option Effective Date and after the Company effects its first commercial sale of a Licensed Product and during the term of this Agreement and the Sell-Off Period, Company will deliver to University the Sales Report setting forth the number of and Net Sales amount (expressed in U. S. dollars) of all sales, leases, or other dispositions of Licensed Products, whether made by Company or a Sublicensee, during such calendar quarter. Included in each sales report will be the name of each Distributor, and the number and type of Licensed Product sold, leased, or otherwise provided to such Distributor. After the Option Effective Date and after the first commercial sale of a Licensed Product in the Territory, Company will deliver a written Sales Report to University even if Company is not required hereunder to pay to University a royalty payment during the calendar quarter. Company shall provide the names of Permitted Sublicensees within thirty (30) days at University’s written request.

6.5 Books and Records. Throughout the term of this Agreement [***], Company, at its expense, will keep and maintain and shall cause each Sublicensee other than Permitted Sublicensees to keep and maintain complete and accurate records of all sales, leases, and other dispositions of Licensed Products and all other records related to this Agreement.

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6.5.1 **Audit Rights.** After the Option Effective Date, Company will permit at the request of University (not to be made more than once in any given calendar year), one or more independent, certified accountants selected by University and reasonably acceptable to Company (which acceptance shall not be unreasonably withheld or delayed) (“Accountants”) to have access to Company’s records and books of account pertaining to calculation of Net Sales and payment of any other amounts owed under this Agreement. Accountants’ access will be during ordinary working hours to audit Company’s records for any payment period ending prior to such request, the correctness of any Sales Report or payment made under this Agreement, or to obtain information as to the payments due for any period in the case of failure of Company to report or make payment under the terms of this Agreement or to verify Company’s compliance with its payment obligations hereunder. Accountants will sign Company’s standard non-disclosure agreement provided it is reasonable to the industry in which Company operates. Company shall cause each Sublicensee, other than Permitted Sublicensees, that manufactures, sells, leases, or otherwise disposes of Licensed Products on behalf of Company to grant University the rights to inspect and audit Sublicensee’s records.

6.5.2 **Scope of Disclosure.** Accountants will not disclose to University any information relating to the business of Company except that which is necessary to inform University of: (a) the accuracy or inaccuracy of Company’s Sales Reports and payments; (b) compliance or noncompliance by Company with the terms and conditions of this Agreement; or (c) the extent of any inaccuracy or noncompliance. A copy of the Accountants’ report will be provided to Company.

6.5.3 **Accountant Copies.** If Accountants believe there is an inaccuracy in any of Company’s payments or noncompliance by Company with any terms and conditions, Accountants will have the right to make and retain copies (including photocopies) of any pertinent portions of the records and books of account.

6.5.4 **Costs of Audit.** If Company’s payments calculated for any calendar quarter are under-reported by more than [***], the costs of any audit and review initiated by University will be borne by Company; otherwise, University shall bear the costs of any audit initiated by University.

7. **INFRINGEMENT**

7.1 **Notice of Third Party’s Infringement.** If a Party learns of substantial, credible evidence that a Third Party is infringing exclusively Licensed Rights, that Party will promptly deliver written notice of the possible infringement to the other Party, describing in detail all relevant information to which that Party has access or control suggesting infringement of the Licensed Rights.

7.2 **Company’s Right to Enforce.** During the term of this Agreement, Company has the first right to respond to, defend, and prosecute in its own name, and at its own expense, actions or suits relating to exclusively Licensed Rights. University may request in writing that Company take action against known infringer. If required by law or otherwise legally necessary for such action to proceed, Company may request that University be joined as a party plaintiff and University will consider such request in good faith, such request not to be unreasonably denied, provided that (a) Company must notify University at

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least ten (10) days before filing suit, and (b) Company will reimburse University for all reasonable legal fees and costs incurred by University in connection with such action. Company will not settle any suits or actions in any manner relating to the Licensed Rights that is detrimental to the University or to the scope or validity of Licensed Rights, without obtaining the prior written consent of University, which consent shall not be unreasonably withheld or delayed. University will keep Company reasonably informed of any matters relating to the defense or prosecution of actions or suits relating to non-exclusively Licensed Rights and will consider in good faith any comments of Company with respect thereto.

7.3 **Distributions.** Out of any Sublicense fees, royalties, damages, awards, or settlement proceeds from any settlement or judgment for infringement of Licensed Rights, Company is allowed to first recover its reasonable attorney’s fees and other out-of-pocket expenses directly related to any action, suit, or settlement for infringement of the Licensed Rights. Any payment by an alleged infringer that, under the terms of the applicable settlement agreement or judgment, (a) constitutes consideration for Net Sales of infringing product (or an equivalent characterization in the nature of a product royalty) will be handled according to the payment provisions in Section A3.2 “Running Royalty Payments”, and (b) constitutes consideration for the grant of a Sublicense (or an equivalent characterization) will be distributed [***] to Company and [***] to University.

7.4 **Limitation on Infringement Actions.** Excluded from the rights granted herein is the right to bring an infringement action against a not-for-profit entity for infringement of the License Rights in carrying out not-for-profit research.

7.5 **University Right to Institute Action.** If Company fails, within [***] of receiving of the University’s written request to take action against an alleged infringer of exclusively Licensed Rights, to secure cessation of the infringement, institute suit against the infringer, or to provide to University satisfactory evidence that Company is engaged in bona fide negotiations for the acceptance by infringer of a Sublicense to the relevant Licensed Rights, then University may, upon written notice to Company, assume full right and responsibility to secure cessation of the infringement or institute suit against the infringer, or secure acceptance of a Sublicensee by Company from the alleged infringer in the relevant Licensed Patents. If University, in accordance with the terms and conditions of this Agreement, chooses to institute suit against an alleged infringer, University may bring such suit in its own name (or, if required by law, in its and Company’s name) and at its own expense, and Company will, but at University’s expense for Company’s direct associated expenses, fully and promptly cooperate and assist University in connection with any such suit. All license fees, royalties, damages, awards, or settlement proceeds arising from such a University-initiated action will be solely for the account of University.

7.6 **No Obligation to Institute Action.** Neither Company nor University is obligated under this Agreement to institute or prosecute a suit against any alleged infringer of the Licensed Rights.

8. **LICENSED RIGHTS VALIDITY**

8.1 **Notice and Investigation of Third Party Challenges.** If any Third Party challenges the validity or enforceability of any of the Licensed Rights, the Party having such information will immediately notify the other Party.

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8.2 **Third Party Actions.** In the event of a Third Party legal action challenging the validity or enforceability of any exclusively Licensed Rights, Company in its sole discretion will have the right to assume and control the sole defense of the claim at Company’s expense. Company will not settle any suits or actions in any manner relating to such Licensed Rights without obtaining the prior written consent of University, which consent shall not be unreasonably withheld or delayed; provided, however, that the Parties agree that loss of University’s intellectual property rights is a reasonable reason to withhold consent. Further, if Company is not diligently protecting University’s intellectual property rights, or if Company does not elect to assume and control the sole defense of the Third Party legal action within [***] after becoming aware of challenge, University will have the right to assume the defense of the action at its own expense. University will not settle any suits or actions in any manner relating to the Licensed Rights without considering in good faith any comments from Company. University will keep Company reasonably informed of any matters relating to any Third Party legal action challenging the validity or enforceability of any non-exclusively Licensed Rights and will consider in good faith any comments of Company with respect thereto.

8.3 **Enforceability of Licensed Rights.** Notwithstanding challenge by any Third Party, any Licensed Right will be enforceable under this Agreement until such Licensed Right is determined to be invalid.

9. **Termination**

9.1 **End of Term.** This Agreement will expire, unless terminated earlier as provided in this Article 9 “Termination”, without further action by the Parties, when all Licensed Rights have terminated pursuant to Article 2 “License and Option Grant”, and all obligations due to University based on the exercise of such Licensed Rights have been fulfilled.

9.2 **Termination by University.** If Company materially breaches or fails to perform one or more of its material duties under this Agreement, University may deliver to Company a written notice of default, which notice will (a) state that it is a notice of default, (b) state that University intends to terminate this Agreement if the default is not cured in ninety (90) days, and (c) identify the material duty or duties to which such default relates. Subject to Section 13.4 “Escalation; Dispute Resolution”, University may terminate this Agreement by delivering to Company a written notice of termination if the default has not been cured within ninety (90) days of the delivery to Company of the notice of default; provided, however, if Company can reasonably demonstrate to University that it is proceeding diligently and in good faith to cure such default but cannot do so within such ninety (90) day period, University will extend such cure period for another ninety (90) day period, or such longer period approved by University. In addition, University may terminate this Agreement in part pursuant to Section 5.2 “Renegotiation of Performance Milestones”.

9.3 **Events of Default.** University may terminate this Agreement by delivering to Company a written notice of termination at least ten (10) days prior to the date of termination if Company (i) permanently ceases operations; (ii) voluntarily files or has filed against it a petition under applicable bankruptcy or insolvency laws that Company fails to have released within thirty (30) days after filing; (iii) proposes any dissolution, composition, or financial reorganization with creditors or if a receiver, trustee, custodian, or similar agent is appointed; (iv) makes a general assignment for the benefit of creditors; or (v) if Company challenges the validity of the Licensed Patents.
9.4 Disputing Events of Default. Notwithstanding the foregoing, if Company disputes that a default has occurred as contemplated above or that a default has not been cured, Company may use the dispute resolution mechanism outlined in Section 13.4 “Escalation; Dispute Resolution”.

9.5 Termination by Company. Company may terminate this Agreement at any time by delivering to University a written notice of termination at least sixty (60) days prior to the effective date of termination. In addition, Company may propose to terminate certain of its Licensed Rights hereunder by delivering to University a written notice of termination accompanied by a proposed written amendment to this Agreement at least sixty (60) days prior to the effective date of termination of such Licensed Rights. For clarity, such amendment will become effective upon execution of such amendment by University and Company and shall not be unreasonably withheld or delayed.

9.6 Effect of Termination. Upon termination of this Agreement, the Licensed Rights granted (including any and all rights granted under the Licensed Rights to Sublicensees including Permitted Sublicensees) will terminate. However, no end-user rights shall terminate as a result of termination of this Agreement. Company's obligations that have accrued prior to the effective date of termination or expiration of this Agreement (including but not limited to the obligations under Article 6 “Payments, Reimbursements, Reports, and Records” will survive termination of this Agreement. Sublicenses will terminate unless converted into a direct license with University pursuant to Section 9.8 “Sublicenses After Termination”. Notwithstanding any such termination of this Agreement, subject to being in compliance with Article 6 of this Agreement at the time of termination, and subject to ongoing compliance with obligations under Article 6 and Article 10 “Release, Indemnification, and Insurance”, Company and any Sublicensees and Distributors may sell or otherwise dispose of existing inventory of Licensed Products for a period of [***] days after the effective date of termination of this Agreement (“Sell-Off Period”), provided, however, that the terms of this Agreement shall apply to the Sell-Off Period as if this Agreement had not terminated. Company will provide notification if Company, or any Sublicensees or Distributors, will be exercising their rights to continue selling inventory pursuant to the Sell-Off Period.

9.7 Final Report to University. Within sixty (60) days after the end of the calendar quarter following either the expiration or termination of either this Agreement or the Sell-Off Period, whichever is later, Company will submit a final Sales Report to University. Any payment obligations accrued prior to such termination or expiration, including those incurred but not yet paid, will become due and payable at the same time as this final Sales Report is due to University.

9.8 Sublicenses After Termination. At any time within [***] following termination of this Agreement, Sublicensee may notify University pursuant to Section 13.10 “Notices” that it wishes to enter into a direct license with University in order to retain its rights to the Licensed Rights granted to it under its Sublicense (such [***] period following receipt of notice of termination, the “Initial Notice Period”). Following University's receipt of Sublicensee's notice, University shall offer Sublicensee a license agreement the terms of which will be substantially similar to the terms of this Agreement; provided, however, that the offered scope of the direct license, licensed territory, and duration of the license will be the same as (not merely substantially similar to) the scope of the license, licensed territory and duration of the license granted under this Agreement (unless the rights granted by Company to Sublicensee were a subset of rights under this Agreement, in which case the scope of the direct license, licensed territory and duration of the license will be the same as the corresponding terms granted by Company to such

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Sublicensee). For the sake of clarity, the financial terms, including without limitation, the running royalty rate, will be identical to the corresponding financial terms set forth in this Agreement. Notwithstanding the foregoing, each Sublicensee’s right to enter into such direct license will be conditioned upon:

9.8.1 Written Notification to University. Such Sublicensee informing University in writing, pursuant to Section 13.10 “Notices”, that it wishes to enter into such direct license with University, within the Initial Notice Period;

9.8.2 Sublicensee in Good Standing. Such Sublicensee being in good standing with Company under its Sublicense such that Sublicensee is not in material breach of the Sublicense;

9.8.3 Valid Sublicense. Such Sublicense having been validly entered into by Company and Sublicensee pursuant to the terms of Section 2.3 “Sublicense Rights”;

9.8.4 Sublicensee Certification that Conditions are Satisfied. Such Sublicensee using reasonable efforts to certify or otherwise demonstrate that the conditions set forth in Subsections 9.8.1 “Written Notification to University”, 9.8.2 “Sublicensee In Good Standing”, and 9.8.3 “Valid Sublicense” have been met within *** of expiration of the Initial Notice Period (or within such longer period of time as University agrees is reasonable under the circumstances, based on the nature and extent of any documentation reasonably requested by University); and

9.8.5 Time Limitations. Unless mutually agreed by the Parties in writing, execution of a direct license with Sublicensee will be completed not later than *** from the end of the Initial Notice Period.

Except as set forth in Subsection 9.8.5 “Time Limitations”, University may, at its sole discretion, waive any of the requirements in Subsections 9.8.1 through 9.8.4. If all of the conditions set forth in this Section 9.8 “Sublicenses After Termination” are met, then Sublicensee will be granted such direct license by University. If any condition set forth in this Section 9.8 “Sublicenses After Termination” is not met, then after expiration of any time period granted to Sublicensee with respect to meeting such condition (for example and to the extent applicable, the Initial Notice Period and/or the periods described in Subsections 9.8.4 “Sublicensee Certification that Conditions are Satisfied” and 9.8.5 “Time Limitations”), Sublicensee will not practice Licensed Rights except as provided for in Section 9.6 “Effect of Termination” and University will be free to license or not license Licensed Rights to such Sublicensee according to University’s sole discretion.

10. RELEASE, INDEMNIFICATION, AND INSURANCE

10.1 Company’s Release. Company hereby releases University and its regents, officers, employees, and agents forever from any and all suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses) relating to or arising out of (a) the manufacture, use, lease, sale, or other disposition of a Licensed Product; or (b) the assigning or sublicensing of Company’s rights under this Agreement.
10.2 Indemnification. Company will indemnify, defend, and hold harmless University and its regents, officers, employees, and agents (each, an “Indemnitee”) from all Third Party suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses), based on University’s role in developing or licensing Licensed Rights and relating to or arising out of Company’s or Sublicensees’ exercise of any rights with respect to Licensed Products, including, without limitation, personal injury, property damage, breach of contract and warranty and products-liability claims relating to a Licensed Product and claims brought by a Sublicensee (each, a “Claim”), provided that the Company will not have obligations to the extent resulting from the University's or gross negligence or willful misconduct. In the event of a Claim, the Indemnitee against whom a Claim is brought will: (a) give Company written notice of the Claim within a reasonable period of time after such Indemnitee receives notice thereof along with sufficient information for Company to identify the Claim; and (b) cooperate and provide such assistance (including, without limitation, testimony and access to documentation within the possession or control of such Indemnitee) as Company may reasonably request in connection with Company’s defense, settlement and satisfaction of the Claim. Company will pay or reimburse all costs and expenses reasonably incurred by such Indemnitee to provide any such cooperation and assistance. Any settlement that would admit liability on the part of University or that would involve any relief other than the payment of monetary damages will be subject to the approval of University, such approval not to be unreasonably withheld. HHMI, and its trustees, officers, employees, and agents (collectively, “HHMI Indemnitees”), will be indemnified, defended by counsel acceptable to HHMI, and held harmless by Company from and against any claim, liability, cost, expense, damage, deficiency, loss, or obligation, of any kind or nature (including, without limitation, reasonable attorneys’ fees and other costs and expenses of defense) (collectively, “HHMI Claims”), based upon, arising out of, or otherwise relating to this Agreement or any Sublicense, including without limitation any cause of action relating to product liability. The previous sentence will not apply to any HHMI Claim that is determined with finality by a court of competent jurisdiction to result solely from the gross negligence or willful misconduct of an HHMI Indemnitee. Notwithstanding any other provision of this Agreement, Company’s obligation to defend, indemnify and hold harmless the HHMI Indemnitees under this paragraph will not be subject to any limitation or exclusion of liability or damages or otherwise limited in any way.

10.3 Company’s Insurance.

10.3.1 General Insurance Requirement. Throughout the term of this Agreement, or during such period as the Parties will agree in writing, Company will maintain full force and effect commercial general liability (CGL) insurance and product liability insurance, with single claim limits at an amount customary to Company’s business for activities and/or products of a similar nature. Such insurance policy will include coverage for claims that may be asserted by University or HHMI against Company under Section 10.2 “Indemnification”. Such insurance policy will name the Board of Regents of the University of Washington and HHMI as an additional insured and will require the insurer to deliver written notice to University at the address set forth in Section 13.10 “Notices”, at least thirty (30) days prior to the termination of the policy. Company will deliver to University a copy of the certificate of insurance for such policy.

10.3.2 Clinical Trial Liability Insurance. Within thirty (30) days prior to the initiation of human clinical trials with respect to Licensed Product(s), Company will provide to University certificates evidencing the existence and amount of clinical trials liability insurance. Company will issue
irrevocable instructions to its insurance agent and to the issuing insurance company to notify University of any discontinuance or lapse of such insurance not less than thirty (30) days prior to the time that any such discontinuance is due to become effective. Company will provide University a copy of such instructions upon their transmittal to the insurance agent and issuing insurance company. Company will further provide University, at least annually, proof of continued coverage.

11. **Warranties**

11.1 **Authority.** Each Party represents and warrants to the other Party that it has full power and authority to execute, deliver, and perform this Agreement, and that no other proceedings by such Party are necessary to authorize the Party’s execution or delivery of this Agreement.

11.2 **Documents.** University represents and warrants that: all University personnel, including employees, students, consultants and contractors, who University is aware as of Effective Date have contributed to the Licensed Patents as of Effective Date have either (a) been party to a for-hire relationship with University that affords University sufficient ownership of all Licensed Patents to provide this license of University’s rights to Company, or (b) executed assignment documents in favor of University as prescribed either by University policies or by agreement with HHMI to provide University sufficient ownership of the Licensed Patents to provide this license of University’s rights to Company.

11.3 **No Known Infringement.** As of the Effective Date, to the best of University's CoMotion office's knowledge, (a) no claim has been made or is threatened charging University with infringement of, or claiming that the Licensed Rights infringe any Third Party rights; and (b) no proceedings have been instituted, or are pending or threatened, which challenge the University’s rights in respect to the Licensed Patents or other Licensed Rights.

11.4 **Disclaimer.** EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN SECTIONS 11.1 “AUTHORITY”, 11.2 “DOCUMENTS”, AND 11.3 “NO KNOWN INFRINGEMENT” UNIVERSITY DISCLAIMS AND EXCLUDES ALL WARRANTIES, EXPRESS AND IMPLIED, CONCERNING EACH LICENSED RIGHT AND EACH LICENSED PRODUCT, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF NON-INFRINGEMENT AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. University innovation has been developed as part of research conducted at University. University innovation is experimental in nature and is made available “AS IS,” without obligation by University to provide accompanying services or support except as specified in this Agreement. The entire risk as to the quality and performance of University innovation is with Company.

11.5 **Intellectual Property Disclaimers.** University expressly disclaims any warranties concerning and makes no representations: (a) that the Licensed Patent(s) will be approved or will issue; (b) concerning the validity or scope of any Licensed Right; or (c) that the practice of Licensed Rights, or the manufacture, use, sale, lease or other disposition of a Licensed Product will not infringe or violate a Third Party’s patent, copyright, or other intellectual property right.
12. **Damages**

12.1 **Remedy Limitation.** EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, (A) IN NO EVENT WILL UNIVERSITY BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES CONTEMPLATED IN THIS AGREEMENT AND (B) IN NO EVENT WILL EITHER PARTY BE LIABLE FOR LOST PROFITS, LOST BUSINESS OPPORTUNITY, INVENTORY LOSS, WORK STOPPAGE, LOST DATA OR ANY OTHER RELIANCE OR EXPECTANCY, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OF ANY KIND. FOR THE AVOIDANCE OF DOUBT, IN NO EVENT WILL COMPANY BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES OF ANY THIRD PARTY LICENSEE OF UNIVERSITY UNDER ANY AND ALL LICENSES GRANTED BY UNIVERSITY TO SUCH THIRD PARTY UNDER THE LICENSED PATENTS TO MAKE, HAVE MADE ON SUCH THIRD PARTY’S BEHALF, USE, OFFER TO SELL, SELL, OFFER TO LEASE OR LEASE, IMPORT, OR OTHERWISE OFFER TO DISPOSE OF LICENSED PRODUCTS IN THE TERRITORY IN THE CV FIELD OF USE.

12.2 **Damage Cap.** IN NO EVENT WILL UNIVERSITY’S TOTAL LIABILITY FOR THE BREACH OR NONPERFORMANCE OF THIS AGREEMENT EXCEED [***] OF PAYMENTS PAID TO UNIVERSITY UNDER ARTICLE 6 “PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS”. THIS LIMITATION WILL APPLY TO CONTRACT, TORT, AND ANY OTHER CLAIM OF WHATEVER NATURE.

13. **General Provisions**

13.1 **Amendment and Waiver.** This Agreement may be amended from time to time only by a written instrument signed by the Parties. No term or provision of this Agreement will be waived, and no breach excused, unless such waiver or consent is in writing and signed by the Party claimed to have waived or consented. No waiver of a breach will be deemed to be a waiver of a different or subsequent breach.

13.2 **Assignment.** The rights and licenses granted by University in this Agreement are personal to Company and Company will not assign its interest or delegate its duties under this Agreement without the written consent of University, which consent will not to be unreasonably withheld or delayed; any such assignment or delegation made without written consent of University will not release Company from its obligations under this Agreement. Notwithstanding the foregoing, Company, without the prior approval of University, may assign all, but no less than all, of its rights and delegate all, but no less than all, of its duties under this Agreement to a Third Party provided that: (a) the assignment is made to such Third Party as a part of and in connection with an Acquisition, (b) Company obtains from such Third Party written agreement to honor all obligations under this Agreement accrued by Company before Acquisition and all obligations under this Agreement to accrue by such Third Party assignee after Acquisition, and (c) Company provides written notice to University of the Acquisition, together with a substitution of parties document or copy of the assignment confirming compliance with (b) above, no later than thirty (30) days after the close of the Acquisition. Any assignment made in violation of this Section 13.2 is void and will constitute an act of breach that requires remedy under Section 9.2 “Termination by University”. This Agreement will inure to the benefit of Company and University and their respective permitted assignees and trustees.

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13.3 **Confidentiality.**

13.3.1 **Form of Transfer.** Confidential Information may be conveyed in tangible or intangible form. Disclosing Party must clearly mark its Confidential Information “confidential”. If disclosing Party communicates Confidential Information in non-written form, it will reduce such communications to writing, clearly mark it “confidential”, and provide a copy to receiving Party within thirty (30) days of original communication at the address in Section 13.10 “Notices”. Any business information delivered by Company as required under this Agreement shall be deemed marked “confidential”, whether or not such confidential marking appears.

13.3.2 **No Unauthorized Disclosure of Confidential Information.** Beginning on the Effective Date and continuing throughout the term of this Agreement and thereafter for a period of [***], receiving Party will not disclose or otherwise make known or available to any Third Party any disclosing Party Confidential Information, without the express prior written consent of disclosing Party. Notwithstanding the foregoing, receiving Party will be permitted to disclose Confidential Information of disclosing Party to (i) actual or potential investors, lenders, consultants, advisors, collaborators, Sublicensees, or development partners, which disclosure will be made under conditions of confidentiality and limited use and (ii) its attorney or agent as reasonably required and (iii) to employees and trustees of HHMI who have a need to know. In no event will receiving Party incorporate or otherwise use disclosing Party’s Confidential Information in connection with any patent application filed by or on behalf of receiving Party. Receiving Party will restrict the use of disclosing Party’s Confidential Information to uses exclusively in accordance with the terms of this Agreement. Receiving Party will use reasonable procedures to safeguard disclosing Party’s Confidential Information. In the case where Company is the receiving Party, Company’s confidentiality obligations will also apply equally to Sublicensees.

13.3.3 **Access to University Information.** University is an agency of the state of Washington and is subject to the Washington Public Records Act, RCW 42.56 et seq., (“Act”), and no obligation assumed by University under this Agreement will be deemed to be inconsistent with University's obligations as defined under the Act and as interpreted by University in its sole discretion. If University receives a request for public records under the Act for documents containing Company Confidential Information, and if University concludes that the documents are not otherwise exempt from public disclosure, University will provide Company notice of the request before releasing such documents. Such notice will be provided in a timely manner to afford Company sufficient time to review such documents and/or seek a protective order, at Company's expense utilizing the procedures described in RCW 42.56.540. University will have no other obligation to protect Company Confidential Information from disclosure in response to a request for public records.

13.3.4 **Disclosure as Required by Law.** Either Party will have the right to disclose the other Party’s Confidential Information as required by law or valid court order, provided that such Party will inform the Party who owns such Confidential Information prior to such disclosure, will cooperate with the owner Party’s efforts to limit or avoid disclosure, and will limit the scope and recipient of disclosure to that required by such law or court order.

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13.4 Escalation; Dispute Resolution. If (i) Company disputes that a default has occurred as contemplated in Section 9.2 “Termination by University”, or that a default has not been cured, or (ii) Company wishes to dispute termination of this Agreement resulting from a failed renegotiation of a new Performance Milestone as contemplated under Section 5.2 “Renegotiation of Performance Milestones”, or (iii) Company disputes in good faith any amounts that are owed to University under this Agreement, and a late fee for such disputed amount has been charged to Company under Section 6.3 “Late Payments”, then Company may provide University with a written dispute notice (“Dispute Notice”). In the case of (i) and (ii) above such Dispute Notice must be received by University prior to expiration of the 60-day cure period referenced in Section 9.2 “Termination by University”, stating the basis of Company’s disagreement with respect to such default or cure. In the case of (iii) above such Dispute Notice must be received by University within thirty (30) days of being charged a late fee for such disputed amount. If Company disputes that a default has occurred as contemplated in Section 9.3 “Events of Default”, then Company may provide University with a Dispute Notice within thirty (30) days of University sending the notice of termination referenced in Section 9.3 “Events of Default”. Upon receipt of a Dispute Notice, University’s right to terminate this Agreement or demand payment of late fees will be suspended and all rights under this Agreement will continue unaffected provided the dispute resolution process in this Section 13.4 “Escalation; Dispute Resolution” is being exercised. Any dispute will first be escalated to Company’s Chief Executive Officer or to a representative from Company’s Board of Directors, and to University’s Vice President for Innovation Strategy, representatives of which will be instructed to work in good faith to attempt to reach a mutually acceptable resolution of the dispute that would avoid termination of this Agreement. If the representatives are unable to reach such resolution of the dispute within thirty (30) days of delivery of the Dispute Notice, an independent, neutral mediator acceptable to both Parties (acting reasonably) will be appointed. The Parties will submit their dispute to mediation according to such parameters as they may mutually agree in writing. The Parties agree to discuss their differences in good faith and to attempt in good faith, with facilitation by the mediator, to reach an amicable resolution of the dispute within thirty (30) days after the mediator’s appointment. If the Parties are not able to agree on resolution of the dispute within such period, or within ninety (90) days of the Dispute Notice, whichever is earlier, including agreeing on a new Performance Milestone pursuant to Section 5.2 “Renegotiation of Performance Milestones” if that is the subject of the dispute, then the dispute resolution process of this Section 13.4 “Escalation; Dispute Resolution” will be complete and either Party may pursue any other action that is legally available to it. Notwithstanding the foregoing, no dispute affecting the rights or property of HHMI shall be subject to the dispute resolutions provisions set forth above.

13.5 Consent and Approvals. Except as otherwise expressly provided in this Agreement, all consents or approvals required under the terms of this Agreement must be in writing and will not be unreasonably withheld or delayed.

13.6 Construction. The headings preceding and labeling the sections of this Agreement are for the purpose of identification only and will not in any event be employed or used for the purpose of construction or interpretation of any portion of this Agreement. As used herein and where necessary, the singular includes the plural and vice versa, and masculine, feminine, and neuter expressions are interchangeable, and the word “including” shall mean “including, without limitation.”

13.7 Enforceability. If a court of competent jurisdiction adjudges a provision of this Agreement unenforceable, invalid, or void, such determination will not impair the enforceability of any of the
remaining provisions hereof and the provisions will remain in full force and effect.

13.8 Third-Party Beneficiaries. Except as identified in Section 13.22 "Third Party Beneficiary", no provision of this Agreement, express or implied, confers upon any person other than the Parties to this Agreement, HHMI and Sublicensees (Sublicensees solely for purposes of enforcing Sections 9.8 “Sublicenses After Termination” and 13.22) any rights, remedies, obligations, or liabilities hereunder. No Sublicensee will have a right to enforce or seek damages under this Agreement other than as set forth in Section 13.22. The Parties agree that no amendment or modification to Section 9.8 or Section 13.22 shall apply to a Sublicensee without the prior written consent of that Sublicensee, if such amendment occurs after the date of execution of the applicable Sublicense.

13.9 Language. Unless otherwise expressly provided in this Agreement, all notices, reports, and other documents and instruments that a Party elects or is required by the terms of this Agreement to deliver to the other Party will be in English.

13.10 Notices. All notices, requests, and other communications that a Party is required or elects to deliver will be in writing and will be delivered personally, or by facsimile or electronic mail (provided such delivery is confirmed), or by a recognized overnight courier service or by United States mail, first-class, certified or registered, postage prepaid, return receipt requested, to the other Party at its address set forth below or to another address as a Party may designate by notice given under this Section 13.10:

If to University: UW CoMotion
ATTN: Director, Innovation Development
4545 Roosevelt Way NE, Suite 400
Seattle, WA 98105-4721
Facsimile No.: 206-685-4767

If to Company: Icosavax, Inc.
ATTN: Adam Simpson
1616 Eastlake Avenue E., Suite 208
Seattle, WA 98102

13.11 Proprietary Markings. To the extent commercially feasible, Company will mark all material forms of Licensed Products or packaging pertaining thereto made and sold by Company in the United States with patent marking conforming to 35 U.S.C. §287(a), as amended from time to time. All Licensed Product(s) shipped to or sold in other countries will be marked in such a manner as to provide notice to potential infringers pursuant to the patent law and practice of the country of manufacture or sale.

13.12 Use of University’s Name and Trademarks or the Names of University Faculty, Staff, or Students. No provision of this Agreement grants Company or Sublicensee any right or license to use the name or trademarks of University or the names or identities of any member of the faculty, staff, or student body of University. Except as provided herein, Company will not use, and will not permit a Sublicensee to use, any such trademarks, names, or identities without University’s and, as the case may be, such member’s
prior written approval. Notwithstanding the foregoing, Company and University may provide factual information regarding the existence of this Agreement. Company acknowledges that under HHMI policy, Company may not use the name of HHMI or of any HHMI employee (including Dr. Baker) in a manner that reasonably could constitute an endorsement of a commercial product or service; but that use for other purposes, even if commercially motivated, is permitted provided that (1) the use is limited to accurately reporting factual events or occurrences, and (2) any reference to the name of HHMI or any HHMI employees in press releases or similar materials intended for public release is approved by HHMI in advance.

13.13 Publicity. In accordance with Section 13.12, University will have the right to report in its customary publications and presentations that University and Company have entered into a license agreement for the technology covered by the Licensed Rights and University may use Company logos in such publications and presentations provided that University does not modify Company’s logos and does not through such use imply any endorsement by Company of University. The Parties will cooperate with one another to review and respond to any press release or similar communication proposed by the other Party regarding the non-confidential subject matter of this Agreement. The specific content and timing of such press releases or similar communication is subject to mutual agreement by the Parties, which will not be unreasonably withheld.

13.14 Relationship of Parties. In entering into, and performing their duties under, this Agreement, the Parties are acting as independent contractors and independent employers. No provision of this Agreement will create or be construed as creating a partnership, joint venture, or agency relationship between the Parties. No Party will have the authority to act for or bind the other Party in any respect.

13.15 Relationship with Principal Investigator(s). Company acknowledges that Principal Investigator is employed by University and has certain pre-existing obligations to University, including obligations with respect to disclosure and ownership of intellectual property and obligations arising from sponsored research agreements between University and Third Parties. Accordingly, Company agrees that to the extent that any consulting agreement between Company and Principal Investigator is inconsistent with any of Principal Investigator’s obligations to University, including the reporting of all inventions developed while employed by University (regardless of where arising) and including contractual obligations arising under any sponsored research agreements between University and Third Parties, then Principal Investigator’s obligations to University will prevail and to such extent any inconsistent provisions of such consulting agreement will be deemed inapplicable and unenforceable.

13.16 Security Interest. In no event will Company grant, or permit any person to assert or perfect, a security interest in the Licensed Rights; however, Company may grant or permit a security interest in the Company’s rights under this Agreement.

13.17 Survival. The obligations specified in Article 6 “Payments, Reimbursements, Reports, and Records” will survive termination of this Agreement provided Reports will not be required for any period in which there are no Net Sales other than the final report due under Section 9.7 “Final Report to University”. Article 1 “Definitions” and the obligations and rights set forth in Section 2.8 “HHMI Research Use Rights”, Section 5.3 “Commercialization Reports” (as applicable to any Sell-Off Period), Article 9 “Termination”, Article 10 “Release, Indemnification, and Insurance”, Article 11 “Warranties”, Article 12

Icosavax, Inc. / University of Washington License and Exclusive Option Agreement UW CoMotion Ref. [***]
13.18 **Collection Costs and Attorneys’ Fees.** If a Party fails to perform an obligation or otherwise breaches one or more of the terms of this Agreement, the other Party may recover from the non-performing breaching Party all its costs (including actual attorneys’ and investigative fees) to enforce the terms of this Agreement.

13.19 **Applicable Law.** The internal laws of the state of Washington will govern the validity, construction, and enforceability of this Agreement, without giving effect to the conflict of laws principles thereof.

13.20 **Forum Selection.** Any suit, claim, or other action to enforce the terms of this Agreement will be brought exclusively in the state and federal courts of King County, Washington. Company hereby submits to the jurisdiction of that court and waives any objections it may have to that court asserting jurisdiction over Company or its assets and property.

13.21 ** Entire Agreement.** Except for the Other License Agreement, this Agreement (including all attachments, exhibits, and amendments) is the final and complete understanding between the Parties concerning licensing of the Licensed Rights and this Agreement supersedes any and all prior or contemporaneous negotiations, representations, and agreements, whether written or oral, concerning the Licensed Rights in the CV Field of Use, including the MTA. Notwithstanding anything to the contrary in this Agreement, nothing in this Agreement will limit any of the rights granted by University to Company pursuant to the Other License Agreement. Confidential Information disclosed under this Agreement will be governed by the terms of this Agreement. This Agreement may not be modified in any manner, except by written agreement signed by an authorized representative of both Parties.

13.22 **Third Party Beneficiary.**

13.22.1 HHMI is not a party to this Agreement and has no liability to any licensee, sublicensee, or user of anything covered by this Agreement, but HHMI is an intended third-party beneficiary of this Agreement and certain of its provisions are for the benefit of HHMI and are enforceable by HHMI in its own name.

13.22.2 Notwithstanding anything to the contrary in this Agreement, each Sublicensee is an intended third party beneficiary of this Agreement, but solely for purposes of enforcing Section 9.8 “Sublicenses After Termination” in its own name.

13.23 **Counterparts.** This Agreement may be executed in counterparts, each of which (including signature pages) will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile, scanned, or photocopied signature (and any signature duplicated in another similar manner) identical to the original will be considered an original signature.
IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective authorized representatives.

University of Washington

By: /s/ Dennis Hanson
Name: Dennis A. Hanson
Title: Associate Director, Innovation Development
Date: 7/2/2020

Icosavax, Inc.

By: /s/ Adam Simpson
Name: Adam K. Simpson
Title: Chief Executive Officer
Date: 7/2/2020
A1. Licensed Rights:

A1.1 Licensed Patents: [***]

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A2. Performance Milestones (Section 5.1 “Performance Milestones”): Subject to any extension pursuant to Section 5.2 “Renegotiation of Performance Milestones” of the Agreement, and Company’s right to renegotiation of Performance Milestones and/or Performance Milestone Date(s), Company will perform, or shall cause to happen or be performed, the following Performance Milestones:

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<tr>
<th>Performance Milestone and Performance Milestone Date in the CV Field of Use</th>
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<td>A2.1.3 Performance Milestone 3</td>
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<td>A2.1.4 Performance Milestone 4</td>
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<td>A2.1.5 Performance Milestone 5</td>
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Icosavax, Inc. / University of Washington
License and Exclusive Option Agreement
UW CoMotion Ref. [***]
A3. Payments (Section 6.1):

A3.1 Running Royalty Payments. Company will pay to University within [***] after the last day of each calendar quarter during the term of this Agreement after the Option Effective Date an amount equal to [***] during such quarter as a running royalty payment.

A3.1.1 Stacking or Third Party Royalty. If a Licensed Party is required to pay royalties to a Third Party based on such Licensed Party's manufacture, use, offer for sale, sale or import of Licensed Product, subject to one or more patents of such Third Party, then the royalty Company pays to University may be reduced [***] of the royalty actually paid to the Third Party; provided that [***] of Licensed Product, and provided that the royalty amount paid to the University shall not fall below [***] of Net Sales.

A3.1.2 Only One Royalty. Company will not be required to pay royalties on Net Sales of any Licensed Product under this Agreement if Company is required to pay royalties on such Net Sales under the Other License Agreement. By way of example, and without limitation, if Net Sales include sales of a product that includes a product that is subject to the Other License Agreement and a Licensed Product that is subject to this Agreement, then the royalty rate with respect to such combination product will be [***], subject to any modifications for Third Party royalties as set forth in Sections A3.2.1 (of this Agreement and the Other License Agreement).

A 3.2 Sublicense Consideration. Within sixty (60) days of the end of each calendar quarter during the term of this Agreement, Company will pay to University [***] of any Sublicense Consideration received by Company during such calendar quarter unless reduced by achievement of Performance Milestones by Company or its Sublicensees prior to execution of the particular Sublicense in accordance with the schedule below. Determination of the relevant Performance Milestone having been achieved for the purposes of determining the Sublicense Consideration percentage shall be based on the most advanced Licensed Product candidate then in development for which Sublicense Consideration was received. A further reduction of the percentage of Sublicense Consideration payable to University under this Agreement will be negotiated in good faith between the Parties where, in addition to the Sublicense of any rights granted to Company hereunder, Company or its Sublicensee also grants a Sublicensee a license or sublicense under a Third Party's intellectual property rights that are or would be infringed by Licensed Product(s) (treating pending patent applications as if they were issued patents), but only to the extent that the total aggregate consideration for such combined license is treated as Sublicense Consideration.

Icosavax, Inc. / University of Washington
License and Exclusive Option Agreement
UW CoMotion Ref. [***]
A3.2 Milestone Has Been Achieved at the Date of Execution of the Sublicense

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<th>Milestone</th>
<th>Consideration Percentage</th>
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<td>A3.2.1</td>
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A3.3 Patent Expense Payment. Commencing on the Effective Date, Company will pay, or reimburse University for paying, Patent Expenses on Licensed Patents with [***] incurred on or after the Effective Date within thirty (30) days of its receipt of University’s invoice for such Patent Expenses. If University licenses the Licensed Patents with [***] to Third Party(ies), Company will pay a prorated portion based on the number of licenses of such Licensed Patents in the CV Field of Use that UW has entered into during such period (e.g., if University enters into one such license in addition to this Agreement, then Company will only be responsible for one-half of such Patent Expenses incurred during such period, and if University enters into two such licenses in addition to this Agreement, then Company will only be responsible for one-third of such Patent Expenses incurred during such period). Company has obligations to reimburse University under Other License Agreement for all of the other non-[***] Licensed Patents. If Other License Agreement terminates, the Parties agree to update this section A3.3 by written amendment to include reimbursement obligations for all of the Licensed Patents. University reserves the right to request advance payments for certain Patent Expenses, at University’s discretion.

A3.3.1 Notwithstanding Sections 4.2 and 4.3 of this Agreement, if at any time Company is not fully reimbursing University for Patent Expenses, or fails to provide advance payment when requested, University shall make patent filing, prosecution, and maintenance decisions, including choosing in which countries to prosecute patents, in its sole discretion and Company shall have no rights to provide instruction or to take over patent prosecution. University shall reasonably consider input provided by Company, but have no obligation to act on such input.
Exhibit C
Developing Countries

[***]
Icosavax, Inc. / University of Washington
Exclusive License Agreement
UW CoMotion Ref. [***]
Amendment No. 1 to
License and Exclusive Option Agreement [***]

This amendment ("Amendment No. 1") to the License and Exclusive Option Agreement [***] ("Agreement"); with an effective date of July 2, 2020), by and between the University of Washington, a public institution of higher education and an agency of the state of Washington ("University"), and Icosavax, Inc., a for profit corporation under the laws of Delaware ("Company") (collectively, the "Parties"), is entered into by and between the Parties, effective as of August 11, 2020 ("Amendment No. 1 Effective Date").

WHEREAS, the Parties now wish to amend the Agreement, effective as of the Amendment No. 1 Effective Date, to amend (i) the list of Licensed Patents, (ii) language on patent expense payment, (iii) definition of Option Territory, and (iv) Performance Milestones Dates;

WHEREFORE the Parties, intending to be legally bound, acknowledge and agree as follows:

1. The rights and obligations of the Parties shall be governed by the terms and conditions of the Agreement, as amended by this Amendment No. 1.

2. The table in Section A1.1 of Exhibit A (Licensed Patents) is amended to include the below:

[***]

3. Section A3.3 of Exhibit A (Patent Expense Payment) is amended and restated in its entirety as below:

Company will pay, or reimburse University for paying, all Patent Expenses on a pro rata basis with any other licensees of Licensed Patents, incurred before, on or after the Effective Date, within thirty (30) days of its receipt of University’s invoice for such Patent Expenses. University reserves the right to request advance payments for certain Patent Expenses, at University’s discretion.

4. The definition for Option Territory is amended and restated in its entirety as below:

“Option Territory” means the United States, Canada, Mexico, and the member states of the European Patent Organisation (including without limitation Switzerland and United Kingdom of Great Britain and Northern Ireland), and their respective territories and possessions.
5. The table in Section A2 of Exhibit A (Performance Milestones) is amended and restated in its entirety as below:

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<tr>
<th>Performance Milestone and Performance Milestone Date in the CV Field of Use</th>
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<tr>
<td>A2.1.1 Performance Milestone 1 [***]</td>
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<td>A2.1.2 Performance Milestone 2 [***]</td>
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<td>A2.1.6 Performance Milestone 6 [***]</td>
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<td>A2.1.7 Performance Milestone 7 [***]</td>
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</table>
6. All other terms and conditions of the Agreement shall remain in full force and effect.

7. This Amendment No. 1 may be executed by facsimile and in identical counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile, scanned, or photocopied signature (and any signature duplicated in another similar manner) identical to the original will be considered an original signature.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 1 effective as of the Amendment No. 1 Effective Date.

UNIVERSITY OF WASHINGTON

By: /s/ Dennis Hanson  
Name: Dennis Hanson  
Title: Associate Director, Innovation Development  
Date: 12/2/2020

ICOSAVAX, INC.

By: /s/ Adam Simpson  
Name: Adam Simpson  
Title: Chief Executive Officer  
Date: 12/2/2020
Amendment No. 2 to
License and Exclusive Option Agreement [***]

This amendment (“Amendment No. 2”) to the License and Exclusive Option Agreement [***] (“Agreement”; with an effective date of July 2, 2020), by and between the University of Washington, a public institution of higher education and an agency of the state of Washington (“University”), and Icosavax, Inc., a for profit corporation under the laws of Delaware (“Company”) (collectively, the “Parties”), is entered into by and between the Parties, effective as of April 2, 2021 (“Amendment No. 2 Effective Date”).

WHEREAS, the Parties now wish to amend the Agreement, effective as of the Amendment No. 2 Effective Date, to amend the list of Licensed Patents to add a patent application co-owned by University and the Fred Hutchinson Cancer Research Center (“Fred Hutch”), and add Fred Hutch to certain sections of the Agreement;

WHEREFORE the Parties, intending to be legally bound, acknowledge and agree as follows:

1. The rights and obligations of the Parties shall be governed by the terms and conditions of the Agreement, as previously amended by Amendment No. 1, and further amended by this Amendment No. 2.

2. The table in Section A1.1 of Exhibit A (Licensed Patents) is amended to include the below:

   [***] [***] [***] [***] [***] [***]

3. Sections A and B of the Background are amended and restated in its entirety as below:

   A. Certain innovations relating to computationally designed two-component icosahedral protein nanoparticles; two-component tetrahedral protein nanoparticles; and methods of multivalent antigen presentation on designed protein nanomaterials were made in the University laboratory of Dr. David Baker, a faculty member in the Department of Biochemistry and an employee of the Howard Hughes Medical Institute (“HHMI”), with members of the Baker lab as co-inventors, including Dr. Neil King, and solely by Dr. Neil King as “Principal Investigator” in his own lab while an employee and faculty member of University in the Department of Biochemistry. In addition certain innovations relating to novel stabilized receptor binding domain immunogens for coronaviruses were collaboratively made in the University laboratory of Dr. Neil King and in the laboratory of [***] (who is an employee of HHMI) at the Fred Hutchinson Cancer Research Center (“Fred Hutch”).

   B. HHMI assigned its rights in such innovations for which Dr. Baker is an inventor (identified as [***], [***] and [***] in Exhibit A “License Schedule” to this Agreement) to University, subject
to the HHMI License (as defined herein). HHMI assigned its rights in those inventions listed in Exhibit A hereto for which HHMI employees, including [***], are inventors (Fred Hutch is [***]), to Fred Hutch, subject to the HHMI License. University and Fred Hutch co-own intellectual property rights in certain inventions, as listed in Exhibit A “Start-Up License Schedule” to this Agreement. University and Fred Hutch have executed an interinstitutional agreement, dated [***] and with University reference [***] (the “IIA”), that authorizes University to assume sole responsibility for both the patent prosecution and licensing of co-owned patent applications. University thus co-owns and/or solely owns certain intellectual property rights in all innovations as listed in Exhibit A “License Schedule” to this Agreement, and has the right to license to others certain rights to use and practice such intellectual property. University is willing to grant those rights so that such innovations may be developed for use in the public interest.

4. Section 2.5 (Limitation of Rights) is amended and restated in its entirety as below:

2.5 Limitation of Rights. No provision of this Agreement grants to Company, by implication, estoppel or otherwise, any rights other than the rights expressly granted it in this Agreement under the Licensed Rights, including any license rights under any other University-owned or Fred Hutch-owned technology, copyright, know-how, patent applications, or patents, or any ownership rights in the Licensed Rights.

5. Section 3.1 (University’s Rights) is amended and restated in its entirety as below:

3.1 University’s Rights. University reserves all rights not expressly granted to Company under this Agreement. University retains for itself, Fred Hutch, and other not-for-profit research institutions, an irrevocable, nonexclusive right to practice Licensed Rights for research, instructional or educational purposes. Expressly included, without limitation, within this University reservation of rights is the right to do the following in connection with such research, instructional or educational purposes: (a) for the University, Fred Hutch, and other not-for-profit research institutions to use the Licensed Rights in sponsored research or collaborative research with any Third Party, but not for any commercial purpose, and only to the extent that no such Third Party is granted any commercialization rights of any kind under the Licensed Rights or to commercialize Licensed Products, (b) for the University and/or Fred Hutch to provide and grant use rights in materials covered by the Licensed Rights, provided that such material transfer agreements restrict the use of such materials to research, teaching or other scholarly activities, and grant to the transferee no rights greater than those retained by the University and Fred Hutch, and preclude the transferee from further transferring such materials to any Third Party, and (c) for the University, Fred Hutch, and other not-for-profit research institutions to publish any information included in the Licensed Rights or any other information that may result from its research.

6. Section 10.1 (Company’s Release) is amended and restated in its entirety as below:

10.1 Company’s Release. Company hereby releases University, Fred Hutch and their regents, officers, employees, and agents forever from any and all suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses) relating to or arising out of (a) the manufacture, use, lease, sale, or other disposition of a Licensed Product; or (b) the assigning or sublicensing of Company’s rights under this Agreement.
7. Section 10.2.1 (Indemnification) is amended and restated in its entirety as below:

10.2.1 Company will indemnify, defend, and hold harmless University, Fred Hutch and their regents, officers, employees, and agents (each, an “Indemnitee”) from all Third Party suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys’ and investigative expenses), based on University’s and/or Fred Hutch’s role in developing or licensing Licensed Rights and relating to or arising out of Company’s or Sublicensees’ exercise of any rights with respect to Licensed Products, including, without limitation, personal injury, property damage, breach of contract and warranty and products-liability claims relating to a Licensed Product and claims brought by a Sublicensee (each, a “Claim”), provided that the Company will not have obligations to the extent resulting from the University’s or Fred Hutch’s gross negligence or willful misconduct. In the event of a Claim, the Indemnitee against whom a Claim is brought will: (a) give Company written notice of the Claim within a reasonable period of time after such Indemnitee receives notice thereof along with sufficient information for Company to identify the Claim; and (b) cooperate and provide such assistance (including, without limitation, testimony and access to documentation within the possession or control of such Indemnitee) as Company may reasonably request in connection with Company’s defense, settlement and satisfaction of the Claim. Company will pay or reimburse all costs and expenses reasonably incurred by such Indemnitee to provide any such cooperation and assistance. Any settlement that would admit liability on the part of University or Fred Hutch that would involve any relief other than the payment of monetary damages will be subject to the approval of University, such approval not to be unreasonably withheld.

8. Section 10.3.1 (General Insurance Requirement) is amended and restated in its entirety as below:

10.3.1 General Insurance Requirement. Throughout the term of this Agreement, or during such period as the Parties will agree in writing, Company will maintain in full force and effect commercial general liability (CGL) insurance and product liability insurance, with single claim limits at an amount customary to Company’s business for activities and/or products of a similar nature. Such insurance policy will include coverage for claims that may be asserted by University, Fred Hutch or HHMI against Company under Section 10.2 “Indemnification”. Such insurance policy will name the Board of Regents of the University of Washington, Fred Hutch and HHMI as an additional insured and will require the insurer to deliver written notice to University at the address set forth in Section 13.10 “Notices”, at least thirty (30) days prior to the termination of the policy. Company will deliver to University a copy of the certificate of insurance for such policy.

9. Section 11.2 (Documents) is amended and restated in its entirety as below:

11.2 Documents. University represents and warrants that: all University personnel, including employees, students, consultants and contractors, who University is aware as of Effective Date have contributed to the Licensed Patents as of Effective Date have either (a) been party to a for-hire relationship with University that affords University sufficient ownership of all Licensed Patents to provide this license of University’s rights to Company, or (b) executed assignment documents in favor of
University as prescribed either by University policies or by agreement with HHMI to provide University sufficient ownership of the Licensed Patents to
provide this license of University’s rights to Company. Furthermore in the IIA between University and Fred Hutch, Fred Hutch represents that its
inventors who are employees of Fred Hutch are obligated to assign to Fred Hutch all of the inventors’ rights in the Licensed Patents, and that Fred Hutch
will use diligent efforts to cause its inventors to sign any additional papers as may be necessary to evidence such assignment.

10. Section 11.3 (No Known Infringement) is amended and restated in its entirety as below:

11.3  **No Known Infringement.** As of the Effective Date, to the best of University’s CoMotion office’s knowledge, (a) no claim has been made or is
threatened charging University or Fred Hutch with infringement of, or claiming that the Licensed Rights infringe any Third Party rights; and (b) no
proceedings have been instituted, or are pending or threatened, which challenge the University’s or Fred Hutch’s rights in respect to the Licensed Patents
or other Licensed Rights.

11. Section 11.4 (Disclaimer) is amended and restated in its entirety as below:

11.4  **Disclaimer.**  **EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN SECTIONS 11.1 “AUTHORITY”, 11.2 “DOCUMENTS”,
AND 11.3 “NO KNOWN INFRINGEMENT” UNIVERSITY (FOR ITSELF AND ON BEHALF OF FRED HUTCH) DISCLAIMS AND
EXCLUDES ALL WARRANTIES, EXPRESS AND IMPLIED, CONCERNING EACH LICENSED RIGHT AND EACH LICENSED
PRODUCT, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF NON-INFRINGEMENT AND THE IMPLIED WARRANTIES OF
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** University/Fred Hutch innovations have been developed as part
of research conducted at University and Fred Hutch. University/Fred Hutch innovations are experimental in nature and is made available
"AS IS," without obligation by University or Fred Hutch to provide accompanying services or support except as specified in this Agreement.
The entire risk as to the quality and performance of University/Fred Hutch innovations is with Company.

12. Section 11.5 (Intellectual Property Disclaimers) is amended and restated in its entirety as below:

11.5  **Intellectual Property Disclaimers.** University (for itself and on behalf of Fred Hutch) expressly disclaims any warranties concerning and makes no
representations: (a) that the Licensed Patent(s) will be approved or will issue; (b) concerning the validity or scope of any Licensed Right; or (c) that the
practice of Licensed Rights, or the manufacture, use, sale, lease or other disposition of a Licensed Product will not infringe or violate a Third Party’s
patent, copyright, or other intellectual property right.

13. Section 12.1 (Remedy Limitation) is amended and restated in its entirety as below:

12.1  **Remedy Limitation.** **EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, (A) IN NO EVENT WILL UNIVERSITY OR FRED
HUTCH BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES
CONTEMPLATED IN THIS AGREEMENT AND (B) IN NO EVENT WILL EITHER PARTY OR FRED HUTCH BE LIABLE FOR LOST
PROFITS, LOST BUSINESS OPPORTUNITY, INVENTORY LOSS, WORK STOPPAGE, LOST DATA OR ANY OTHER RELIANCE OR
EXPECTANCY, INDIRECT, SPECIAL,**
INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OF ANY KIND. FOR THE AVOIDANCE OF DOUBT, IN NO EVENT WILL COMPANY BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES OF ANY THIRD PARTY LICENSEE OF UNIVERSITY UNDER ANY AND ALL LICENSES GRANTED BY UNIVERSITY TO SUCH THIRD PARTY UNDER THE LICENSED PATENTS TO MAKE, HAVE MADE ON SUCH THIRD PARTY’S BEHALF, USE, OFFER TO SELL, SELL, OFFER TO LEASE OR LEASE, IMPORT, OR OTHERWISE OFFER TO DISPOSE OF LICENSED PRODUCTS IN THE TERRITORY IN THE CV FIELD OF USE.

14. A new section as below, Section 13.3.5 (Disclosures to Fred Hutch), is added right after Section 13.3.4 (Disclosure as Required by Law):

13.3.5 **Disclosures to Fred Hutch.** University has obligations within the IIA to share with Fred Hutch copies of financial reports, Sublicenses, and other material documents received from Company. In such IIA Fred Hutch agrees, to the extent permitted by law, to keep confidential the terms of this Agreement and any Confidential Information received from University related to the Company (e.g., revenues, business development reports, milestones accomplished, Sublicensee information and Sublicenses), except that Fred Hutch may report revenue it receives, and other information in accordance with its reporting requirements to HHMI and any sponsors and may include such revenue in aggregate licensing revenue reported by them.

15. Section 13.8 (Third Party Beneficiaries) is amended and restated in its entirety as below:

13.8 **Third-Party Beneficiaries.** Except as identified in Section 13.22 “Express Third-Party Beneficiary” or other parts of this Agreement referencing Fred Hutch, no provision of this Agreement, express or implied, confers upon any person other than the Parties to this Agreement, HHMI and Sublicensees (Sublicensees solely for purposes of enforcing Sections 9.8 “Sublicenses After Termination” and 13.22) any rights, remedies, obligations, or liabilities hereunder. No Sublicensee will have a right to enforce or seek damages under this Agreement other than as set forth in Section 13.22. The Parties agree that no amendment or modification to Section 9.8 or Section 13.22.2 shall apply to a Sublicensee without the prior written consent of that Sublicensee, if such amendment occurs after the date of execution of the applicable Sublicense.

16. Section 13.12 (Use of Names) is amended and restated in its entirety as below:

13.12 **Use of Names.**

13.12.1 No provision of this Agreement grants Company or Sublicensee any right or license to use the name or trademarks of University or Fred Hutch or the names or identities of any member of the faculty (provided that Dr. Baker and [***] are subject to Subsection 13.12.2), staff, or student body of University. Except as provided herein, Company will not use, and will not permit a Sublicensee to use, any such trademarks, names, or identities without University’s and Fred Hutch’s, as the case may be, such member’s prior written approval. Notwithstanding the foregoing, Company, Fred Hutch and University may provide factual information regarding the existence of this Agreement.
13.12.2 Company acknowledges that under HHMI policy, Company may not use the name of HHMI or of any HHMI employee (including Dr. Baker and [***]) in a manner that reasonably could constitute an endorsement of a commercial product or service; but that use for other purposes, even if commercially motivated, is permitted provided that (1) the use is limited to accurately reporting factual events or occurrences, and (2) any reference to the name of HHMI or any HHMI employees in press releases or similar materials intended for public release is approved by HHMI in advance.

17. Item A2.1.2 (Performance Milestone 2) in the table in Section A2 of Exhibit A (Performance Milestones) is amended and restated in its entirety as below:

[***]

18. All other terms and conditions of the Agreement shall remain in full force and effect.

19. This Amendment No. 2 may be executed by facsimile and in identical counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile, scanned, or photocopied signature (and any signature duplicated in another similar manner) identical to the original will be considered an original signature.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 2 effective as of the Amendment No. 2 Effective Date.

UNIVERSITY OF WASHINGTON

By: /s/ Dennis Hanson
Name: Dennis Hanson
Title: Senior Manager, UW CoMotion
Date: 5/7/2021

ICOSAWAX, INC.

By: /s/ Adam Simpson
Name: Adam Simpson
Title: Chief Executive Officer
Date: 5/7/2021
Exhibit 10.14

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.

PUBLIC HEALTH SERVICE

PATENT LICENSE AGREEMENT NONEXCLUSIVE – SUBLICENSABLE
and

BIOLOGICAL MATERIALS LICENSE-NON-EXCLUSIVE

This Agreement is based on the model Patent License Non-Exclusive Sublicensable Agreement adopted by the U.S. Public Health Service ("PHS") Technology Transfer Policy Board for use by components of the National Institutes of Health ("NIH"), the Centers for Disease Control and Prevention ("CDC"), and the Food and Drug Administration ("FDA"), which are agencies of the PHS within the Department of Health and Human Services ("HHS").

This Cover Page identifies the Parties to this Agreement:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the “NIAID”) of the
NIH

and

Icosavax, Inc.,
hereinafter referred to as the “Licensee”,
having offices at 1 Union Square, 600 University Street, Suite 2525, Seattle, Washington 98101,
created and operating under the laws of Delaware.

Tax ID No.: [***]

[***]

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NIH Patent License Agreement Nonexclusive - Sublicensable
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For the NIAID’s internal use only:

License Number:

License Application Number: [***]

Serial Number(s) of Licensed Patent(s) or Patent Application(s):

• [***]

Licensee: Icosavax, Inc.

Cooperative Research and Development Agreement (CRADA) Number (if a subject invention): N/A

Additional Remarks:

Public Benefit(s): Development of nanoparticle-based respiratory syncytial virus (“RSV”) vaccines

This Patent License Agreement, hereinafter referred to as the “Agreement”, consists of this Cover Page, an attached Agreement, a Signature Page, Appendix A (List of Patent(s) or Patent Application(s)), Appendix B (Fields of Use and Territory), Appendix C (Royalties), Appendix D (Benchmarks and Performance), Appendix E (Commercial Development Plan), Appendix F (Example Royalty Report), Appendix G (Royalty Payment Options, and Appendix H (Shipping Information).
The NIAID and the Licensee agree as follows:

1. **BACKGROUND**

1.1 In the course of conducting biomedical and behavioral research, the NIAID investigators made inventions that may have commercial applicability.

1.2 By assignment of rights from the NIAID employees and other inventors, HHS, on behalf of the Government, solely owns the Licensed Patent Rights listed in Appendix A (I and II) and jointly owns Licensed Patent Rights listed in Appendix A (III) claimed in any United States or foreign patent applications or patents corresponding to the assigned inventions. HHS also owns any tangible embodiments of the inventions claimed therein actually reduced to practice by the NIAID.

1.3 The Secretary of HHS has delegated to the NIAID the authority to enter into this Agreement for the licensing of rights to these inventions under 35 U.S.C. §§200-212, the Federal Technology Transfer Act of 1986, 15 U.S.C. §3710(a), and the regulations governing the licensing of Government-owned inventions, 37 CFR Part 404.

1.4 The NIAID desires to transfer these inventions to the private sector through commercialization licenses to facilitate the commercial development of products and processes for public use and benefit.

1.5 The Licensee desires to acquire commercialization rights to certain of these inventions in order to develop processes, methods, or marketable products for public use and benefit.

2. **DEFINITIONS**

2.1 “Affiliate(s)” of Licensee means a corporation or other business entity, which directly or indirectly is controlled by or controls, or is under common control with the Licensee. For this purpose, the term “control” means ownership of more than fifty percent (50%) of the voting stock or other ownership interest of the corporation or other business entity, or the power to elect or appoint more than fifty percent (50%) of the members of the governing body of the corporation or other business entity.

2.2 “Benchmarks” mean the performance milestones that are set forth in Appendix D.

[***]

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2.3 “BLA” means a Biologics License Application or similar application or submission for marketing approval filed with or submitted to a Regulatory Authority in conformance with the requirements of such Regulatory Authority.

2.4 “Clinical Trial” means a Phase I Clinical Trial, Phase II Clinical Trial, Phase III Clinical Trial and/or Phase IV Clinical Trial conducted in the United States or outside of the United States.

2.5 “Commercial Development Plan” means the written commercialization plan attached as Appendix E.

2.6 “First Commercial Sale” means (a) with respect to a Licensed Product, the initial transfer by or on behalf of the Licensee or any of its Affiliates or sublicensees of such Licensed Product to a third party (other than a sublicensee), in exchange for cash or some equivalent to which value can be assigned for the purpose of determining Net Sales, for end use of such Licensed Product in a regulatory jurisdiction after approval by a Regulatory Authority has been granted for such Licensed Product in such regulatory jurisdiction or (b) the initial practice of a Licensed Process by or on behalf of the Licensee or any of its Affiliates or sublicensees for a third party (other than a sublicensee) in exchange for cash or some equivalent to which value can be assigned for the purpose of determining Net Sales.

2.7 “FDA” means the U.S. Food and Drug Administration, and any successor agency thereto.

2.8 “Government” means the Government of the United States of America.

2.9 “IND” means an Investigational New Drug application, Clinical Study Application, Clinical Trial Exemption, or similar application or submission for approval to conduct human clinical investigations filed with or submitted to a Regulatory Authority in conformance with the requirements of such Regulatory Authority.

2.10 “Least Developed Countries” means those countries listed in Appendix B, subsection IV.

2.11 “Licensed Fields of Use” means the fields of use identified in Appendix B.

[***]

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2.12 "Licensed Additional Documentation" means information and materials, owned, controlled or generated by the NIAID inventors’ laboratory, including, but not limited to, [***] and which during the term of this Agreement (i) are in the possession or control of NIAID, and (ii) are necessary or useful to Licensee in the Licensed Fields of Use, including without limitation, in connection with the research, development, manufacture, use or sale of Licensed Products in the Licensed Territory.

2.13 "Licensed Materials" means tangible biological materials, identified in Appendix B, including progeny, subclones, expressed antibody proteins, unmodified derivatives, fractions or components isolated therefrom, whether or not within the scope of the claims of the Licensed Patent Rights.

2.14 "Licensed Patent Rights" means:

(a) Patent applications (including provisional patent applications and PCT patent applications) or patents listed in Appendix A, all divisions and continuations of these applications, all patents issuing from these applications, divisions, and continuations, and any reissues, reexaminations, and extensions of all these patents;

(b) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.14(a):
   (i) continuations-in-part of 2.14(a);
   (ii) all divisions and continuations of these continuations-in-part;
   (iii) all patents issuing from these continuations-in-part, divisions, and continuations;
   (iv) priority patent application(s) of 2.14(a); and
   (v) any reissues, reexaminations, and extensions of all these patents;

(c) to the extent that the following contain one or more claims directed to the invention or inventions disclosed in 2.14(a): all counterpart foreign and U.S. patent applications and patents to 2.14(a) and 2.14(b), including those listed in Appendix A; and

(d) Licensed Patent Rights shall not include 2.14(b) or 2.14(c) to the extent that they contain one or more claims directed to new matter which is not the subject matter disclosed in 2.14(a).
2.15 “Licensed Processes” means processes, which in the course of being practiced, would be within the scope of one or more claims of the Licensed Patent Rights in the country in which such processes are practiced that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.16 “Licensed Products” means tangible materials, which in the course of manufacture, use, sale, or importation, would be within the scope of one or more claims of the Licensed Patent Rights in the country of such manufacture, use, sale, or importation, as applicable that have not been held unpatentable, invalid or unenforceable by an unappealed or unappealable judgment of a court of competent jurisdiction.

2.17 “Licensed Territory” means the geographical area identified in Appendix B.

2.18 “Major Market” means any one of the following countries: United States, Japan, the United Kingdom, France, Germany, Italy or Spain.

2.19 “Net Sales” means with respect to any Licensed Product or Licensed Process, the total gross receipts for sales of such Licensed Product(s) or practice of Licensed Process(es) by or on behalf of the Licensee or of its Affiliates or sublicensees to third parties, and from leasing, renting, or otherwise making Licensed Products available to third parties without sale or other dispositions, whether invoiced or not, less the following items: (a) returns, allowances, and credits given or made for rejection or return of previously sold Licensed Products or Licensed Processes or for retroactive price reductions that are actually allowed and granted in the specific reporting period, (b) packing costs, insurance costs, freight out, and other transportation charges, (c) taxes or excise duties or other governmental charges imposed on the transaction (if separately invoiced), (d) rebates and chargeback payments granted to managed health care organizations, pharmacy benefit managers (or equivalents thereof), and (e) wholesaler and cash and quantity discounts in amounts customary in the trade to the extent actually granted. No deductions shall be made for [***]. Notwithstanding the foregoing, transfers of Licensed Product or practice of the Licensed Process internally among Licensee, its Affiliate(s), or their respective sublicensees shall be exempt from the calculation of Net Sales, unless the recipient is an end user of the Licensed Product or Licensed Process. The supply of Licensed Product or practice of Licensed Process as samples for charitable, or non-commercial purposes, for use in non-clinical or clinical trials, or any test or other studies reasonably necessary to comply with any applicable laws shall not be included in the calculation of Net Sales.

[***]

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2.20  “Phase I Clinical Trial” means a human clinical trial (including Phase Ia and Ib) in any country that includes studies in humans of the safety and tolerability of, and information regarding pharmacokinetics and potential pharmacological activity of an investigational product that would satisfy the requirements of 21 CFR 312.21(a).

2.21  “Phase II Clinical Trial” means a human clinical trial (including Phase 2a and 2b) in any country that includes studies in humans of the safety, dose ranging and efficacy of an investigational product that would satisfy the requirements of 21 CFR 312.21(b).

2.22  “Phase III Clinical Trial” means a human clinical trial in any country that provides for expanded study of a product on sufficient numbers of patients to establish the safety and efficacy of a product and generate, if required, pharmacological data to support regulatory approval in the proposed therapeutic indications that would satisfy the requirements of 21 CFR 312.21(c).

2.23  “Phase IV Clinical Trial” means a human clinical trial in any country occurring after marketing approval for purposes of gathering information on a vaccine’s effect in various populations and any side effects associated with long-term use of the vaccine.

2.24  “Practical Application” means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and in each case, under these conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

2.25  “Regulatory Authority” means any applicable government regulatory authority involved in granting approvals for the manufacturing, marketing, reimbursement and/or pricing of Licensed Products in the Licensed Territory, including, in the United States, the United States Food and Drug Administration and any successor governmental authority having substantially the same function.

2.26  “Valid Claim” means a claim of an issued and unexpired patent that is in force included within the Licensed Patent Rights which has not been revoked or held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction (which decision is not appealable or has not been appealed within the time allowed for appeal), and which claim has not been disclaimed, denied or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise.

[***]

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3. **GRANT OF RIGHTS**

3.1 The NIAID hereby grants and the Licensee accepts, subject to the terms and conditions of this Agreement, a nonexclusive license under the Licensed Patent Rights listed in Appendix A (I and II) and under the provided Licensed Additional Documentation in the Licensed Territory to make and have made, to use and have used, to sell and have sold, to offer to sell, and to import any Licensed Products in the Licensed Fields of Use and to practice and have practiced any Licensed Processes in the Licensed Fields of Use. For the sake of clarity, Licensee shall have the right to transfer Licensed Products, Licensed Materials or Licensed Additional Documentation to the Licensee’s Affiliate(s), sublicensees, and third-party contractors to conduct commercial research and/or product development using the Licensed Products or Licensed Materials solely in accordance with the terms of this Agreement, provided that such entities may not use the Licensed Products or Licensed Materials for any purpose other than that described herein, and consent to be bound by any applicable terms and obligations of this Agreement.

3.2 The NIAID grants and the Licensee accepts, subject to the terms and conditions of this Agreement, a nonexclusive license under the Licensed Patent Rights to make and have made, to use and have used, and to import and have imported the Licensed Materials listed in Appendix B in the Licensed Field of Use. For the sake of clarity, Licensee has no right to sell and have sold, or to offer to sell, Licensed Materials.

3.3 This Agreement confers no license or rights by implication, estoppel, or otherwise under any patent applications or patents of the NIAID other than the Licensed Patent Rights regardless of whether these patents are dominant or subordinate to the Licensed Patent Rights.

3.4 The NIAID agrees to use reasonable efforts to transfer copies of the Licensed Additional Documentation, as available, to Licensee promptly after the effective date of this Agreement. The NIAID acknowledges that information relating to the Licensed Patent Rights or Licensed Products may be of assistance to the Licensee in its research efforts. Accordingly, the NIAID shall consider reasonable requests by the Licensee for access to the inventors of the Licensed Patent Rights, Licensed Additional Documentation, and Licensed Materials.

[***]

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4. **SUBLICENSING**

4.1 Upon [***], the *Licensee* may enter into sublicensing agreements under the *Licensed Patent Rights* only when it concurrently licenses or has previously licensed other proprietary or in-licensed intellectual property rights. For the avoidance of doubt, the *Licensee* does not have the right to solely sublicense the *Licensed Patent Rights*. The *Licensee* does not have the right to sublicense the *Licensed Materials* listed in Appendix B but shall have the right to transfer the *Licensed Materials* to its *Affiliates*, sublicensees and third-party contractors pursuant to Section 3.1.

4.2 The *Licensee* agrees that any sublicenses granted by it shall provide that the obligations to the *NIAID* of Paragraphs 5.1, 5.2, 8.1, 10.1, 10.2, 12.5, and 13.7-13.9 of this *Agreement* shall be binding upon the sublicensee as if it were a party to this *Agreement*. The *Licensee* further agrees to attach copies of these Paragraphs to all sublicense agreements.

4.3 Any sublicenses granted by the *Licensee* shall provide for the termination of the sublicense, or the conversion to a license directly between the sublicensees and the *NIAID*, at the option of the sublicensee, upon termination of this *Agreement* under Article 13. This conversion is [***] contingent upon acceptance by the sublicensee of the remaining provisions of this *Agreement*.

4.4 The *Licensee* agrees to forward to the *NIAID* a [***] copy of each fully executed sublicense agreement postmarked within thirty (30) days of the execution of the agreement. To the extent permitted by law, the *NIAID* agrees to maintain each sublicense agreement in confidence.

5. **STATUTORY AND NIH REQUIREMENTS AND RESERVED GOVERNMENT RIGHTS**

5.1 Prior to the *First Commercial Sale*, at the *NIAID*’s reasonable request and to the extent available, the *Licensee* agrees to provide the *NIAID* with reasonable quantities of *Licensed Products* or materials made through the *Licensed Processes* not to exceed [***] per calendar year for the *NIAID*’s internal, pre-clinical research use only. *NIAID* may not transfer any *Licensed Products* pursuant to this Paragraph 5.1 to any organization, entity, or governmental agency other than *NIAID* without the prior written consent of *Licensee*.

5.2 To the extent required under 35 U.S.C. §204, as amended, the *Licensee* agrees that products used or sold in the United States embodying *Licensed Products* or produced through use of *Licensed Processes* shall be manufactured substantially in the United States, unless a written waiver is obtained in advance from the *NIAID*.

[***]
6. **ROYALTIES AND REIMBURSEMENT**

6.1 The Licensee agrees to pay the NIAID a noncreditable, nonrefundable license issue royalty as set forth in Appendix C.

6.2 The Licensee agrees to pay the NIAID a minimum annual royalty as set forth in Appendix C.

6.3 The Licensee agrees to pay the NIAID earned royalties as set forth in Appendix C.

6.4 The Licensee agrees to pay the NIAID benchmark royalties as set forth in Appendix C.

6.5 The Licensee agrees to pay the NIAID sublicensing royalties as set forth in Appendix C.

6.6 A patent or patent application licensed under this Agreement shall cease to fall within the Licensed Patent Rights for the purpose of computing earned royalty payments in any given country on the earliest of the dates that:

   (a) the application has been abandoned and not continued;
   (b) the patent expires or irrevocably lapses; or
   (c) the patent has been held to be invalid or unenforceable by an unappealed or unappealable decision of a court of competent jurisdiction or administrative agency.

6.7 No multiple royalties shall be payable because any Licensed Products or Licensed Processes are covered by more than one of the Licensed Patent Rights.

6.8 On sales of Licensed Products by the Licensee or its Affiliates or sublicensees on sales made in other than an arms-length transaction, the value of the Net Sales attributed under this Article 6 to this transaction shall be that which would have been received in an arms-length transaction in the same country, based on sales of like quantity and quality products on or about the time of this transaction.

[***]

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6.9 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the Licensed Patent Rights and paid by the NIAID prior to the effective date of this Agreement, the Licensee shall pay the NIAID, as an additional royalty, within sixty (60) days of the NIAID's submission of a statement and request for payment to the Licensee, an amount equivalent to [***] of said unreimbursed patent expenses previously paid by the NIAID. As of May 18, 2018, the total of such unreimbursed patent expenses equals approximately [***] US dollars.

6.10 With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the Licensed Patent Rights and paid by the NIAID on or after the effective date of this Agreement, the NIAID, at its sole option, may require the Licensee:

(a) to pay the NIAID on an annual basis, within [***] of the NIAID's submission of a statement and request for payment, a royalty amount equivalent to [***] of the patent expenses paid by the NIAID during the previous calendar year(s) or in the event that there are more than [four (4)] licensees for that calendar year(s) with similar obligations, then a proportional percentage of such expenses for that year, whatever is less;

(b) to pay these unreimbursed expenses directly to the law firm employed by the NIAID to handle these functions. However, in this event, the NIAID and not the Licensee shall be the client of the law firm; or

(c) under exceptional circumstances, the Licensee may be given the right to assume responsibility for the preparation, filing, prosecution, or maintenance of any patent application or patent included with the Licensed Patent Rights. In that event, the Licensee shall directly pay the attorneys or agents engaged to prepare, file, prosecute, or maintain these patent applications or patents and shall provide the NIAID with copies of each invoice associated with these services as well as documentation that these invoices have been paid.

6.11 The NIAID agrees, upon written request, to provide the Licensee with summaries of patent prosecution invoices for which the NIAID has requested payment from the Licensee under Paragraphs 6.9 and 6.10. The Licensee agrees that all information provided by the NIAID related to patent prosecution costs shall be treated as confidential commercial information and shall not be released to a third party except as required by law or a court of competent jurisdiction.

[***]

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6.12 The Licensee may elect to surrender its rights in any country of the Licensed Territory under any of the Licensed Patent Rights upon [***] written notice to the NIAID and owe no payment obligation under Paragraph 6.10 for patent-related expenses paid in that country after the effective date of the written notice.

7. PATENT FILING, PROSECUTION, AND MAINTENANCE

7.1 The NIAID agrees to take responsibility for the preparation, filing, prosecution, and maintenance of any and all patent applications or patents included in the Licensed Patent Rights.

8. RECORD KEEPING

8.1 The Licensee agrees to keep accurate and correct records of Licensed Products made, used, sold, or imported and Licensed Processes practiced under this Agreement appropriate to determine the amount of royalties due the NIAID. These records shall be retained for at least [***] following a given reporting period and shall be available during normal business hours for inspection, at the expense of the NIAID, by an accountant or other designated auditor selected by the NIAID and reasonably acceptable to Licensee for the sole purpose of verifying reports and royalty payments hereunder. NIAID may conduct such inspection no more than once per calendar year and may inspect records from a particular reporting period only once. The accountant or auditor shall sign Licensee’s standard confidentiality agreement prior to the inspection and shall only disclose to the NIAID information relating to the accuracy of reports and royalty payments made under this Agreement. If an inspection shows an underreporting or underpayment in excess of [***] for any twelve (12) month period, then the Licensee shall reimburse the NIAID for the cost of the inspection at the time the Licensee pays the unreported royalties, including any additional royalties as required by Paragraph 9.8. All royalty payments required under this Paragraph shall be due within [***] of the date the NIAID provides the Licensee notice of the payment due. If an inspection shows an overpayment for any twelve (12) month reporting period, Licensee shall be entitled to credit the amount of such overpayment against any future non-patent prosecution royalty amounts owed by Licensee under this Agreement.

[***]
9. **REPORTS ON PROGRESS, BENCHMARKS, SALES, AND PAYMENTS**

9.1 Prior to signing this Agreement, the Licensee has provided the NIAID with the Commercial Development Plan in Appendix E, under which the Licensee intends to develop the Licensed Products or Licensed Processes with an intent of achieving the Practical Application of the Licensed Patent Rights. This Commercial Development Plan is hereby incorporated by reference into this Agreement. Based on this plan, performance Benchmarks are determined as specified in Appendix D.

9.2 The Licensee shall provide written annual reports on its product development progress or efforts to commercialize under the Commercial Development Plan for the Licensed Fields of Use within [***] after December 31 of each calendar year. These progress reports shall include, but not be limited to: progress on research and development, status of applications for regulatory approvals, manufacture and status of sublicensing, marketing, importing, and sales during the preceding calendar year, as well as, [***]. The NIAID also encourages these reports to include information on any of the Licensee’s public service activities that relate to the Licensed Patent Rights. If reported progress differs from that projected in the Commercial Development Plan and Benchmarks, the Licensee shall explain the reasons for such differences. In any annual report, the Licensee may propose amendments to the Commercial Development Plan, acceptance of which by the NIAID may not be denied unreasonably. The Licensee agrees to provide any additional information reasonably required by the NIAID to evaluate the Licensee’s performance under this Agreement. The Licensee may amend the Benchmarks at any time upon written approval by the NIAID. The NIAID shall not unreasonably withhold condition, or delay approval of any request of the Licensee to extend the time periods of this schedule if the request is supported by a reasonable showing by the Licensee of diligence in its performance under the Commercial Development Plan and toward bringing the Licensed Products to the point of Practical Application.

9.3 The Licensee shall report to the NIAID the dates for achieving Benchmarks specified in Appendix D and the First Commercial Sale in each country in the Licensed Territory within thirty (30) days of such occurrences.

[***]

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9.4 The Licensee shall submit to the NIAID, within [***] after each calendar half-year ending June 30 and December 31, a royalty report, as described in the example in Appendix F, setting forth for the preceding half-year period the amount of the Licensed Products sold or Licensed Processes practiced by or on behalf of the Licensee in each country within the Licensed Territory, the Net Sales, and the amount of royalty accordingly due. With each royalty report, the Licensee shall submit payment of earned royalties due. If no earned royalties are due to the NIAID for any reporting period, the written report shall so state. The royalty report shall [***] include a detailed listing of all deductions made under Paragraph 2.18 to determine Net Sales made under Article 6 to determine royalties due.

9.5 The Licensee agrees to forward semi-annually to the NIAID a copy of these reports (and/or relevant portion thereof) received by the Licensee from its sublicensees during the preceding half-year period as shall be pertinent to a royalty accounting to the NIAID by the Licensee for activities under the sublicense.

9.6 Royalties due under Article 6 shall be paid in U.S. dollars and payment options are listed in Appendix G. For conversion of foreign currency to U.S. dollars, the conversion rate shall be the New York foreign exchange rate quoted in The Wall Street Journal on the day that the payment is due, and any loss of exchange, value, taxes, or other expenses incurred in the transfer or conversion to U.S. dollars shall be paid entirely by the Licensee. The royalty report required by Paragraph 9.4 shall be mailed to the NIAID at its address for Agreement Notices indicated on the Signature Page.

9.7 The Licensee shall be solely responsible for determining if any tax on royalty income is owed outside the United States and shall pay this tax and be responsible for all filings with appropriate agencies of foreign governments.

9.8 Additional royalties may be assessed by the NIAID on any payment that is more than [***] overdue at the rate of [***] per month. This [***] per month rate may be applied retroactively from the original due date until the date of receipt by the NIAID of the overdue payment and additional royalties. The payment of any additional royalties shall not prevent the NIAID from exercising any other rights it may have as a consequence of the lateness of any payment.

[***]
10. PERFORMANCE

10.1 The Licensee shall use its reasonable commercial efforts to bring the Licensed Products and Licensed Processes to Practical Application. “Reasonable commercial efforts” for the purposes of this provision shall include reasonable efforts to adhere to the Commercial Development Plan in Appendix E and to perform the Benchmarks in Appendix D. The efforts of a sublicensee shall be considered the efforts of the Licensee. The NIAID also agrees to make reasonable efforts to provide the Licensee with the Licensed Additional Documentation set forth in Paragraph 3.4 hereof. The Licensee agrees to retain control over the Licensed Materials and Licensed Additional Documentation and shall not distribute or release them to others without the prior written consent of the NIAID, except for Affiliate(s), sublicensees, and third-party contractors acting on Licensee’s behalf, as provided in Paragraph 3.

10.2 Upon receipt and verification of the royalties due under Paragraph 6.1, the NIAID agrees to provide the Licensee, at the Licensee’s expense, with samples of the Licensed Materials as available and identified in Appendix B to the individual and address listed in Appendix H and, at reasonable cost to the Licensee, to replace them in the event of their unintentional destruction.

10.3 Upon the First Commercial Sale, until the expiration or termination of this Agreement, the Licensee shall use its reasonable commercial efforts to make Licensed Products and Licensed Processes reasonably accessible to the United States public.

10.4 The Licensee agrees, after its First Commercial Sale, to make commercially reasonable quantities of Licensed Products or materials produced through the use of Licensed Processes available to patient assistance programs in the U.S., if applicable.

10.5 The Licensee agrees, after its First Commercial Sale and as part of its marketing and product promotion in the U.S., to develop educational materials (e.g., brochures, website, etc.) directed to patients and physicians detailing the Licensed Products or medical aspects of the prophylactic and therapeutic uses of the Licensed Products.

[***]
10.6 The Licensee agrees to supply, to the Technology Transfer and Intellectual Property Office, NIAID, at the mailing address 5601 Fishers Lane, Suite 6D, Rockville, Maryland 20852-3804 U.S.A., with inert samples of the Licensed Products or Licensed Processes or their packaging for educational and display purposes only.

11. INFRINGEMENT AND PATENT ENFORCEMENT

11.1 The NIAID and the Licensee agree to notify each other promptly of each infringement or possible infringement of the Licensed Patent Rights, as well as, any facts which may reasonably be expected to affect the validity, scope, or enforceability of the Licensed Patent Rights of which either Party becomes aware.

11.2 In the event that a declaratory judgment action alleging invalidity of any of the Licensed Patent Rights shall be brought against the NIAID, the NIAID agrees to notify the Licensee that an action alleging invalidity has been brought. The NIAID does not represent that it shall commence legal action to defend against a declaratory action alleging invalidity. The Licensee shall take no action to compel the Government either to initiate or to join in any declaratory judgment action. Should the Government be made a party to any suit by motion or any other action of the Licensee, the Licensee shall reimburse the Government for any costs, expenses, or fees, which the Government incurs as a result of the motion or other action. Upon the Licensee's payment of all costs incurred by the Government as a result of the Licensee's joinder motion or other action, these actions by the Licensee shall not be considered a default in the performance of any material obligation under this Agreement.

12. NEGATION OF WARRANTIES AND INDEMNIFICATION

12.1 The NIAID offers no warranties other than it warrants that those statements specified in Article 1 are true and correct.

12.2 The NIAID does not warrant the validity of the Licensed Patent Rights and makes no representations whatsoever with regard to the scope of the Licensed Patent Rights, or that the Licensed Patent Rights may be exploited without infringing other patents or other intellectual property rights of third parties.

12.3 THE NIAID MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY SUBJECT MATTER DEFINED BY THE CLAIMS OF THE LICENSED PATENT RIGHTS, LICENSED MATERIALS OR LICENSED ADDITIONAL DOCUMENTATION OR TANGIBLE MATERIALS RELATED THERETO.

[***]

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12.4 The NIAID does not represent that it shall commence legal actions against third parties infringing the Licensed Patent Rights.

12.5 The Licensee shall indemnify and hold the NIAID, its employees, students, fellows, agents, and consultants harmless from and against all liability, demands, damages, expenses, and losses, including but not limited to death, personal injury, illness, or property damage resulting from third party claims or demands in connection with or arising out of:

(a) the use by or on behalf of the Licensee, or its sublicensees, or their directors, employees, or third-party contractors of any Licensed Patent Rights or Licensed Materials or Licensed Additional Documentation; or

(b) the design, manufacture, distribution, or use of any Licensed Products, Licensed Processes or materials by the Licensee, or other products or processes developed by Licensee or its sublicensees in connection with or arising out of the Licensed Patent Rights or Licensed Additional Documentation,

except in each case (a) and (b) to the extent arising out of the NIAID’s breach of this Agreement or the negligence or willful misconduct of the NIAID or any of its employees, students, fellows, agents, or consultants.

12.6 The Licensee agrees to maintain a liability insurance program consistent with sound business practice.

13. TERM, TERMINATION, AND MODIFICATION OF RIGHTS

13.1 This Agreement is effective when signed by all parties, unless the provisions of Paragraph 14.15 are not fulfilled, and shall extend to the expiration of the last to expire of the Licensed Patent Rights unless sooner terminated as provided in this Article 13.

13.2 In the event that the Licensee is in default in the performance of any material obligations under this Agreement, including but not limited to the obligations listed in Paragraph 13.5, and if the default has not been remedied within ninety (90) days after the date of notice in writing of the default, the NIAID may terminate this Agreement by written notice and pursue outstanding royalties owed through procedures provided by the Federal Debt Collection Act; provided, however, that if the Licensee disputes in good faith that it has defaulted in its performance of any material obligation under this Agreement or that any such default has not been timely remedied, the NIAID and the Licensee shall negotiate promptly and in good faith to resolve such dispute [***].

[***]

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13.3 In the event that the Licensee becomes insolvent, files a petition in bankruptcy, has such a petition filed against it, determines to file a petition in bankruptcy, or receives notice of a third party’s intention to file an involuntary petition in bankruptcy, the Licensee shall immediately notify the NIAID in writing.

13.4 The Licensee shall have a unilateral right to terminate this Agreement in any country or territory by giving the NIAID sixty (60) days written notice to that effect.

13.5 The NIAID shall specifically have the right to terminate or modify, at its option, this Agreement, if the NIAID reasonably determines that the Licensee, its Affiliate(s), or sublicensees:

(a) is not executing the Commercial Development Plan submitted with its request for a license, as amended pursuant to Paragraph 9.2,
and the Licensee cannot otherwise demonstrate to the NIAID’s satisfaction that the Licensee has taken, or can be expected to take within a reasonable time, effective steps to achieve Practical Application of the Licensed Products or Licensed Processes;

(b) has not achieved the Benchmarks in at least one of the indications identified in Appendix D as may be modified under Paragraph 9.2;

(c) has willfully made a false statement of, or willfully omitted, a material fact in the license application or in any report required by this Agreement;

(d) has committed a material breach of a covenant or agreement contained in this Agreement;

(e) is not keeping at least one Licensed Product or Licensed Process reasonably available to the public in the U.S. after commercial use commences; or

(f) cannot reasonably justify a failure to comply with the domestic production requirement of Paragraph 5.2, unless waived.
13.6 In making the determination referenced in Paragraph 13.5, the NIAID shall take into account the normal course of such commercial development and manufacturing programs conducted with sound and reasonable business practices and judgment and the annual reports submitted by the Licensee under Paragraph 9.2. Prior to invoking termination or modification of this Agreement under Paragraph 13.5, the NIAID shall give written notice to the Licensee providing the Licensee specific notice of, and a ninety (90) day opportunity to respond to, the NIAID’s concerns as to the items referenced in 13.5(a)-13.5(f). If the Licensee fails to alleviate the NIAID’s concerns as to the items referenced in 13.5(a)-13.5(f) or fails to develop a corrective action plan and initiate corrective action pursuant to such plan to the NIAID’s reasonable satisfaction, the NIAID may terminate this Agreement upon written notice to the Licensee; provided, however, that if the Licensee disputes in good faith the NIAID’s determination with respect to any item(s) referenced in 13.5(a)-13.5(f), the NIAID and the Licensee shall negotiate promptly and in good faith to resolve such dispute.

13.7 The NIAID reserves the right according to 35 U.S.C. §209(d)(3) to terminate or modify this Agreement if it is determined that the action is necessary to meet the requirements for public use specified by federal regulations issued after the date of the license and these requirements are not reasonably satisfied by the Licensee.

13.8 Within thirty (30) days of receipt of written notice of the NIAID’s unilateral decision to modify or terminate this Agreement, the Licensee may, consistent with the provisions of 37 CFR §404.11, appeal the decision by written submission to the designated NIAID official. The decision of the designated NIAID official shall be the final agency decision. The Licensee may thereafter exercise any and all administrative or judicial remedies that may be available.

13.9 Within ninety (90) days of expiration or termination of this Agreement under this Article 13, a final report shall be submitted by the Licensee. Any royalty payments, including those incurred but not yet paid (such as the minimum annual royalty), and those related to patent expense, due to the NIAID shall become immediately due and payable upon termination or expiration. If terminated under this Article 13, sublicensees may elect to convert their sublicenses to direct licenses with the NIAID pursuant to Paragraph 4.3. Unless otherwise specifically provided for under this Agreement, upon termination or expiration of this Agreement, the Licensee shall return all Licensed Products provided by the NIAID or other NIAID-provided materials included within the Licensed Patent Rights to the NIAID or provide the NIAID with written certification of the destruction thereof. The Licensee may not be granted additional NIAID licenses if the final reporting requirement is not fulfilled.

[***]

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14. **GENERAL PROVISIONS**

14.1 Neither party may waive or release any of its rights or interests in this Agreement except in writing. The failure of the Government to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right by the Government or excuse a similar subsequent failure to perform any of these terms or conditions by the Licensee.

14.2 This Agreement constitutes the entire agreement between the Parties relating to the subject matter of the Licensed Patent Rights, Licensed Additional Documentation, Licensed Products and Licensed Processes, and all prior negotiations, representations, agreements, and understandings are merged into, extinguished by, and completely expressed by this Agreement.

14.3 The provisions of this Agreement are severable, and in the event that any provision of this Agreement shall be determined to be invalid or unenforceable under any controlling body of law, this determination shall not in any way affect the validity or enforceability of the remaining provisions of this Agreement.

14.4 If either party desires a modification to this Agreement, the parties shall, upon reasonable notice of the proposed modification by the party desiring the change, confer in good faith to determine the desirability of the modification. No modification shall be effective until a written amendment is signed by the signatories to this Agreement or their designees.

14.5 The construction, validity, performance, and effect of this Agreement shall be governed by Federal law as applied by the Federal courts in the District of Columbia.

14.6 All Agreement notices required or permitted by this Agreement shall be given by prepaid, first class, registered or certified mail or by an express/overnight delivery service provided by a commercial carrier, properly addressed to the other party at the address designated on the Signature Page, or to any other address as may be designated in writing by such other party. Agreement notices shall be considered timely if such notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by U.S. Postal Service postmark or dated receipt from a commercial carrier. Parties should request a legibly dated U.S. Postal Service postmark or obtain a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks shall not be acceptable as proof of timely mailing.

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14.7 This Agreement shall not be assigned or otherwise transferred (including any transfer by legal process or by operation of law, and any transfer in bankruptcy or insolvency, or in any other compulsory procedure or order of court) without the prior written consent of the NIAID, except that Licensee may assign this Agreement without such consent to Licensee’s Affiliate(s) or to the successor of that part of Licensee’s business to which this Agreement pertains, whether such successor’s interest results from merger, sale of stock, sale of assets or otherwise. In the case of such assignment to an Affiliate or successor, Licensee shall provide written notice of the anticipated assignment to the email inbox or mailing address on the signature page below that is at least fifteen (15) calendar days before the effective date of the assignment, with receipt confirmed (which may be by automated method in the case of email or by U.S. Postal Service or commercial carrier if such notice is provided in accordance with Section 14.6) (“Assignment Notice”). In the event that Licensee does not provide such Assignment Notice prior to Licensee’s assignment, the NIAID reserves the right to terminate or modify, at its option, this Agreement. NIAID will have a period of thirty (30) calendar days from the date that it receives written notice from the Licensee of a proposed assignment for which NIAID’s written consent is required, to approve or reject the proposed assignment and such approval shall not be unreasonably withheld. The parties agree that the identity of the parties is material to the formation of this Agreement and that the obligations under this Agreement are nondelegable. In the event that the NIAID consents to a proposed assignment as set forth above, the Licensee shall pay the NIAID, as an additional royalty, [***] as consideration received for any assignment of this Agreement within sixty (60) days of the assignment.

14.8 The Licensee agrees in its use of any NIAID-supplied materials to comply with all applicable statutes, regulations, and guidelines, including the NIH and the HHS regulations and guidelines. The Licensee agrees not to use the NIAID-supplied materials for research involving human subjects or clinical trials in the United States without complying with 21 CFR Part 50 and 45 CFR Part 46. The Licensee agrees not to use the NIAID-supplied materials for research involving human subjects or clinical trials outside of the United States without notifying the NIAID, in writing, of the research or trials and complying with the applicable regulations of the appropriate national control authorities. Written notification to the NIAID of research involving human subjects or clinical trials outside of the United States shall be given no later than sixty (60) days prior to commencement of the research or trials.

[***]
14.9 The Licensee acknowledges that it is subject to and agrees to abide by the United States laws and regulations (including the Export Administration Act of 1979 and Arms Export Control Act) controlling the export of technical data, computer software, laboratory prototypes, biological materials, and other commodities. The transfer of these items may require a license from the appropriate agency of the Government or written assurances by the Licensee that it shall not export these items to certain foreign countries without prior approval of the agency. The NIAID neither represents that a license is or is not required or that, if required, it shall be issued.

14.10 The Licensee agrees to mark the Licensed Products, or their packaging sold in the United States with all applicable U.S. patent numbers and similarly to indicate “Patent Pending” status. All Licensed Products manufactured in, shipped to, or sold in other countries shall be marked in a manner to preserve the NIAID patent rights in those countries.

14.11 By entering into this Agreement, the NIAID does not directly or indirectly endorse any product or service provided, or to be provided, by the Licensee whether directly or indirectly related to this Agreement. The Licensee shall not state or imply that this Agreement is an endorsement by the Government, the NIAID, any other Government organizational unit, or any Government employee. Additionally, the Licensee shall not use the names of the NIAID, NIH, FDA or HHS or the Government or their employees in any advertising, promotional, or sales literature without the prior written approval of the NIAID.

14.12 The Parties agree to attempt to settle amicably any controversy or claim arising under this Agreement or a breach of this Agreement. The Licensee agrees first to appeal any unsettled claims or controversies to the designated NIAID official, or designee, whose decision shall be considered the final agency decision. Thereafter, the Licensee may exercise any administrative or judicial remedies that may be available.

14.13 Nothing relating to the grant of a license, nor the grant itself, shall be construed to confer upon any person any immunity from or defenses under the antitrust laws or from a charge of patent misuse, and the acquisition and use of rights pursuant to 37 CFR Part 404 shall not be immunized from the operation of state or Federal law by reason of the source of the grant.


[***]
The terms and conditions of this Agreement shall, at the NIAID's sole option, be considered by the NIAID to be withdrawn from the Licensee's consideration and the terms and conditions of this Agreement, and the Agreement itself to be null and void, unless this Agreement is executed by the Licensee and a fully executed original is received by the NIAID within sixty (60) days from the date of the NIAID signature found at the Signature Page.

SIGNATURES BEGIN ON NEXT PAGE
For the NIAID:

/s/ Michael R. Mowatt 06/27/2018
Michael R. Mowatt, Ph.D. Date
Director
Technology Transfer and Intellectual Property Office
National Institute of Allergy and Infectious Diseases

Mailing Address or E-mail Address for Agreement notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the Licensee (Upon, information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the Licensee made or referred to in this document are truthful and accurate.):

by:

/s/ Adam Simpson 06/8/2018
Signature of Authorized Official Date

Adam Simpson
Printed Name

Chief Executive Officer
Title

Official and Mailing Address for Agreement notices:

Adam Simpson
Name

Chief Executive Officer
Title

Mailing Address

[***]

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1. Official and Mailing Address for Financial notices (the Licensee’s contact person for royalty payments)

Adam Simpson
Name
Chief Executive Officer
Title
Mailing Address:
1 Union Square
600 University Street, Suite 2525
Seattle, WA 98101

Email Address: [***]
Phone: ____________________________
Fax: ____________________________

Any false or misleading statements made, presented, or submitted to the Government, including any relevant omissions, under this Agreement and during the course of negotiation of this Agreement are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) and/or imprisonment).

[***]

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I. Licensed Materials:

[***]

II. Licensed Fields of Use:

(a) Adjuvanted or non-adjuvanted vaccines for the prevention, cure, amelioration or treatment of respiratory syncytial virus (RSV) infection in humans, for administration alone or in combination with one or more other vaccines. For the sake of clarity, such RSV vaccines as set forth in the Licensed Patent Rights are limited to those that combine Licensed Patent Rights with Licensee’s proprietary protein-based nanoparticle technology and specifically excludes nucleic acid-based vaccines.

(b) The use of the Licensed Materials listed in Appendix B (I) is limited to internal research, quality control and characterization of Licensed Products only.

III. Licensed Territory:

(a) Worldwide

IV. Least Developed Countries:

Africa (34): Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Uganda, United Republic of Tanzania, Zambia

Asia (14): Afghanistan, Bangladesh, Bhutan, Cambodia, Kiribati, Lao People’s Democratic Republic, Myanmar, Nepal, Samoa, Solomon Islands, Timor-Leste, Tuvalu, Vanuatu, Yemen

Latin America and the Caribbean (1): Haiti

(Source: United Nations Office of the High Representative (UN-OHRLLS) as of October 23, 2013)

[***]
APPENDIX C – ROYALTIES

Royalties:

I. The Licensee agrees to pay to the NIAID a noncreditable, nonrefundable license issue royalty in the amount of [***] within sixty (60) days from the effective date of this Agreement.

II. The Licensee agrees to pay to the NIAID a nonrefundable minimum annual royalty as follows:

(a) [***] minimum annual royalty payments for Years Two through [***] are due and payable within [***] after January 1 of each calendar year and may be credited against any earned royalties due for sales made in that year. For clarity, Year Two shall begin on January 1, 2019 and the first minimum annual royalty payment is due and payable within [***] of January 1, 2019;

(b) [***] minimum annual royalty payments for Years [***] through [***] are due and payable within [***] after January 1 of each calendar year and may be credited against any earned royalties due for sales made in that year;

(c) [***] minimum annual royalty payments for every year after Year [***] until prior to First Commercial Sale are due and payable within [***] after January 1 of each calendar year and shall be credited against any earned royalties due for sales made in that year; and

(d) [***] minimum annual royalty payments for every year after First Commercial Sale as long as Licensed Patent Rights exist, and have not expired, been revoked, lapsed, or held unenforceable, are due and payable within [***] after January 1 of each calendar year and shall be credited against any earned royalties due for sales made in that year.

III. The Licensee agrees to pay the NIAID the following earned royalties on Net Sales of each Licensed Product throughout the Licensed Territory in each calendar year by or on behalf of Licensee, its Affiliate(s), or its sublicensees.

(a) When Valid Claims exist in countries of manufacture or sale and in which Licensee has not exercised its rights to terminate this Agreement:

(1) [***] on Net Sales in Least Developed Countries.

[***]
(2) [***] for the portion of annual Net Sales of the Licensed Products sold in such countries outside of the Least Developed Countries which are less than or equal to [***].

(3) [***] for the portion of annual Net Sales of the Licensed Products sold in such countries outside of the Least Developed Countries which are over [***] US dollars [***].

(4) Upon the first time the aggregate Net Sales of all Licensed Products achieve the following thresholds, the Licensee agrees to pay the following one-time Benchmark royalties:

a. [***] dollars [***] when the aggregate Net Sales of all Licensed Products reaches [***] dollars [***];

b. [***] dollars [***] when the aggregate Net Sales of all Licensed Products reaches [***] dollars [***]; and

c. [***] dollars [***] when the aggregate Net Sales of all Licensed Products reaches [***] dollars [***].

IV. The Licensee agrees to pay the NIAID Benchmark royalties within [***] of Licensee's achieving each of the following Benchmarks:

(a) [***] dollars [***] upon dosing of first patient in first Phase I Clinical Trial for the first and second indications in the Licensed Field of Use;

(b) [***] dollars [***] upon dosing of first patient in first Phase Ib or Phase II Clinical Trial for the first indication in the Licensed Field of Use;

(c) [***] dollars [***] upon dosing of first patient in first Phase Ib or Phase II Clinical Trial for the second indication in the Licensed Field of Use;

(d) [***] dollars [***] upon dosing of first patient in first Phase III Clinical Trial for the first indication in the Licensed Field of Use;

(e) [***] dollars [***] upon dosing of first patient in first Phase III Clinical Trial for the second indication in the Licensed Field of Use;

(f) [***] dollars [***] upon marketing approval received from a Regulatory Authority in the US or first Major Market outside US for the first indication in the Licensed Field of Use; and

(g) [***] dollars [***] upon marketing approval received from a Regulatory Authority in the US or first Major Market outside the US for the second
indication in the **Licensed Field of Use**.

The **Benchmark** royalties shall be payable only upon the initial achievement of such **Benchmark** exercised in performance of the **Licensed Field of Use** and no amounts shall be due hereunder for subsequent or repeated achievement of such **Benchmark**.

V. The **Licensee** agrees to pay the **NIAID** additional sublicensing royalties proportional to the fair market value of any consideration received that is directly attributable to granting a sublicense to the **Licensed Patent Rights**. The payments shall be made within [***] of the execution of each sublicense and calculated as follows:

(a) For sublicenses granted before [***] for any **Licensed Product** in the US or foreign equivalent:
   
   (1) [***] for the first indication in the **Licensed Field of Use**; and
   
   (2) [***] for the second and each subsequent indication in the **Licensed Field of Use**; and

(b) For sublicense grants after the [***] for any **Licensed Product** but before the [***] for any **Licensed Product** in the US or foreign equivalent:

   (1) [***] for a first indication in the **Licensed Field of Use**; and
   
   (2) [***] for the second and each subsequent indication in the **Licensed Field of Use**; and

(c) For sublicense grants after the [***] for any **Licensed Product** in the US or foreign equivalent:

   (1) [***] for a first indication in the **Licensed Field of Use**; and
   
   (2) [***] for the second indication and each subsequent indication in the **Licensed Field of Use**.

[***]
The Licensee agrees to the following Benchmarks for its performance under this Agreement and, within thirty (30) days of achieving a Benchmark, shall notify the NIAID that the Benchmark has been achieved.

**Benchmarks** for elderly vaccination indication

I. Submission of **IND** application to **Regulatory Authority**: Second (2nd) Quarter [***]
II. Dosing of first patient in **Phase I Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
III. Dosing of first patient in **Phase Ib or II Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
IV. Dosing of first patient in **Phase III Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
V. Submission of **BLA** in the US or first **Major Market** outside US by a **Regulatory Authority**: Third (3rd) Quarter [***]
VI. Marketing approval in the US or first **Major Market** outside US by a **Regulatory Authority**: Third (3rd) Quarter [***]

**Benchmarks** for maternal vaccination for prophylaxis in newborn indication

VII. Submission of **IND** application to **Regulatory Authority**: Fourth (4th) Quarter [***]
VIII. Dosing of first patient in **Phase I Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
IX. Dosing of first patient in **Phase Ib or II Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
X. Dosing of first patient in **Phase III Clinical Trial**: Initiation by Fourth (4th) Quarter [***]
XI. Submission of **BLA** in the US or first **Major Market** outside US by a **Regulatory Authority**: Third (3rd) Quarter [***]

[***]

CONFIDENTIAL

NIH Patent License Agreement Nonexclusive - Sublicensable
Model 10-2015 Page 31 of 36 [Final] [Icosavax, Inc.]
XII. Marketing approval in the US or first **Major Market** outside US by a **Regulatory Authority**: Third (3rd) Quarter

[***]

CONFIDENTIAL

NIH Patent License Agreement Nonexclusive - Sublicensable
Model 10-2015 Page 32 of 36 [Final] [Icosavax, Inc.]
CONFIDENTIAL
NIH Patent License Agreement Nonexclusive - Sublicensable
Model 10-2015 Page 33 of 36 [Final] [Icosavax, Inc.]
APPENDIX F – EXAMPLE ROYALTY REPORT

Required royalty report information includes:

- License reference number (L-XXX-200X/0)
- Reporting period
- Catalog number and units sold of each Licensed Product (domestic and foreign)
- Gross Sales per catalog number per country
- Total Gross Sales
- Itemized deductions from Gross Sales
- Total Net Sales
- Earned Royalty Rate and associated calculations
- Gross Earned Royalty
- Adjustments for Minimum Annual Royalty (MAR) and other creditable payments made
- Net Earned Royalty due

Example

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Product Name</th>
<th>Country</th>
<th>Units Sold</th>
<th>Gross Sales (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>US</td>
<td>250</td>
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<tr>
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<tr>
<td>4</td>
<td>D</td>
<td>US</td>
<td>12</td>
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</tr>
</tbody>
</table>

Total Gross Sales: 153,250

Less Deductions:

- Freight: 3,000
- Returns: 7,000

Total Net Sales: 143,250

Royalty Rate: 8%

Royalty Due: 11,460

Less Creditable Payments: 10,000

Net Royalty Due: 1,460

[***]
PUBLIC HEALTH SERVICE

Amendment

This Agreement is based on the model Amendment Agreement adopted by the U.S. Public Health Service ("PHS") Technology Transfer Policy Board for use by components of the National Institutes of Health ("NIH"), the Centers for Disease Control and Prevention ("CDC"), and the Food and Drug Administration ("FDA"), which are agencies of the PHS within the Department of Health and Human Services ("HHS").

This Cover Page identifies the Parties to this Agreement:

The U.S. Department of Health and Human Services, as represented by
National Institute of Allergy and Infectious Diseases
an Institute or Center (hereinafter referred to as the "NIAID") of the
NIH

and

Icosavax, Inc.,
hereinafter referred to as the "Licensee",
having offices at 1 Union Square, 600 University Street, Suite 2525, Seattle, Washington 98101,
created and operating under the laws of Delaware.

Tax ID No.: [***]

[***]

CONFIDENTIAL - NIH

Amendment of [***] Icosavax, Inc.
Model 10-2015

Page 1 of 7
FIRST AMENDMENT TO [***]

This is the first amendment ("First Amendment") of the agreement by and between the NIAID and Licensee having an effective date of June 28, 2018 and having NIAID Reference Number [***] ("Agreement"). This First Amendment, having NIAID Reference Number [***] includes, in addition to the amendments made below, 1) a Signature Page, 2) Attachment 1 (Shipping Information) and 3) Attachment 2 (Royalty Payment Information).

WHEREAS, the NIAID and the Licensee desire that the Agreement be amended a first time as set forth below in order to update Appendix B to include additional Licensed Materials.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the NIAID and the Licensee, intending to be bound, hereby mutually agree to the following:

1) Append Appendix B – I. Licensed Materials, to include as new item (f) [***] [***] protein.

2) The Licensee shall pay the NIAID an amendment issue royalty in the sum of [***], which shall be payable in installments as follows (payment options may be found in Attachment 2):
   a. The first installment of [***] Dollars [***] payable within sixty (60) days from the effective date of this First Amendment; and
   b. The second installment of [***] Dollars [***] payable within sixty (60) days of the one (1) year anniversary of the effective date of this First Amendment.

3) Upon receipt by NIAID of the first installment of the license amendment royalty and verification thereof, NIAID agrees to provide the above-named Licensed Materials, as available, and to replace these Licensed Materials at reasonable cost, in the event of their unintentional destruction.

4) In the event any provision(s) of the Agreement is/are inconsistent with Attachment 1 and/or 2, such provision(s) is/are hereby amended to the extent required to avoid such inconsistency and to give effect to the shipping and payment information in such Attachment 1 and/or 2.

5) All terms and conditions of the Agreement not herein amended remain binding and in effect.

6) The terms and conditions of this First Amendment shall, at the NIAID's sole option, be considered by the NIAID to be withdrawn from the Licensee's consideration and the terms and conditions of this First Amendment, and the First Amendment itself, to be null and void, unless this First Amendment is executed by the Licensee and a fully executed original is received by the NIAID within sixty (60) days from the date of the NIAID's signature found at the Signature Page.

7) This First Amendment is effective upon execution by all parties.

SIGNATURES BEGIN ON NEXT PAGE
In Witness Whereof, the parties have executed this First Amendment on the dates set forth below. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the NIAID:

/s/ Michael R. Mowatt
Michael R. Mowatt, Ph.D.
Director
Technology Transfer and Intellectual Property Office
National Institute of Allergy and Infectious Diseases

Date

Mailing Address or E-mail Address for Agreement notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the Licensee (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the Licensee made or referred to in this document are truthful and accurate):

/s/ Adam Simpson
Signature of Authorized Official

Name: Adam Simpson
Title: Chief Executive Officer

Official and Mailing Address for Agreement notices:

Adam Simpson
Name

Chief Executive Officer
Title
II. Official and Mailing Address for Financial notices (the Licensee’s contact person for royalty payments):

Adam Simpson
Name
Chief Executive Officer
Title
Mailing Address:
600 University Street, Suite 2525
Seattle, WA 98101

Email Address: [***]
Phone: [***]
Fax: [***]

Any false or misleading statements made, presented, or submitted to the Government, including any relevant omissions, under this Agreement and during the course of negotiation of this Agreement are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

[***]
****

CONFIDENTIAL - NIH

Amendment of [***] Icosavax, Inc.
Model 10-2015

Page 7 of 7
This Agreement is based on the model Amendment Agreement adopted by the U.S. Public Health Service ("PHS") Technology Transfer Policy Board for use by components of the National Institutes of Health ("NIH"), the Centers for Disease Control and Prevention ("CDC"), and the Food and Drug Administration ("FDA"), which are agencies of the PHS within the Department of Health and Human Services ("HHS").

This Cover Page identifies the Parties to this Agreement:

The U.S. Department of Health and Human Services, as represented by

National Institute of Allergy and Infectious Diseases

an Institute or Center (hereinafter referred to as the “NIAID”) of the

NIH

and

Icosavax, Inc,

hereinafter referred to as the “Licensee”,

having offices at 1616 Eastlake Avenue East, Suite 208, Seattle, WA 98102,

created and operating under the laws of Delaware.

Tax ID No.: [***]
SECOND AMENDMENT TO [***]

This is the Second amendment ("Second Amendment") of the agreement by and between the NIAID and Licensee having an effective date of June 28, 2018 and having NIAID Reference Number [***] ("Agreement"). This Second Amendment, having NIAID Reference Number [***] includes, in addition to the amendments made below, 1) a Signature Page, 2) Attachment 1 (Shipping Information) and 3) Attachment 2 (Royalty Payment Information).

WHEREAS, the NIAID and the Licensee desire that the Agreement be amended a second time as set forth below in order to add biological materials.

1. NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the NIAID and the Licensee, intending to be bound, hereby mutually agree to the following (all additions are shown in underline and deletions are shown in strike-out):

1) On page 1, amend Icosavax, Inc. address:
   Icosavax, Inc., hereinafter referred to as the "Licensee", having offices at 1 Union Square, 600 University Street, Suite 2525, Seattle, Washington, 98101; 1616 Eastlake Avenue East, Suite 208, Seattle, Washington, 98102, created and operating under the laws of Delaware.

2) On page 2, Add:
   For the NIAID's internal use only:
   - License Number: [***]
   - License Application Number [***]
   - Serial Number(s) of Licensed Patent(s) or Patent Application(s):
     - [***]
   - Public Benefit(s): Development of nanoparticle-based respiratory syncytial virus ("RSV") and Meta Pneumovirus (hMPV) vaccines

3) Add to Section 2 DEFINITIONS:
   2.27 "Third Party" means a person or entity other than (i) Licensee or any of its Affiliate(s) or sublicensees and (ii) NIAID.

4) Add to Section 6.9:

[***]

CONFIDENTIAL -NIH
Second Amendment of [***] Icosavax, Inc. July 2020
Model 10-2015 Page 2 of 10
With regard to unreimbursed expenses associated with the preparation, filing, prosecution, and maintenance of all patent applications and patents included within the Licensed Patent Rights and paid by the NIAID prior to the effective date of this Agreement, the Licensee shall pay the NIAID, as an additional royalty, within [***] of the NIAID's submission of a statement and request for payment to the Licensee, an amount equivalent to [***] of said unreimbursed patent expenses previously paid by the NIAID. As of the effective date of this Agreement, the total of such unreimbursed patent expenses equals approximately [***] US dollars. For any amendment to this License that includes additional Licensed Patent Rights, there will be an additional royalty for the unreimbursed additional patent expenses. Licensee shall pay the NIAID the additional royalty within [***] of the NIAID's submission of a statement and request for payment to the Licensee, an amount equivalent to [***] of said unreimbursed additional patent expenses which is equivalent to [***].

5) Addition to Appendix A:

**Patent(s) or Patent Application(s):**

[***]

6) Addition to Appendix B, Sections I and II:

1. **Licensed Materials:**

[***]

**Licensed Fields of Use:**

Adjuvanted or non-adjuvanted vaccines for the prevention, cure, amelioration or treatment of disease caused by metapneumovirus infection and/or respiratory syncytial virus (RSV) infection in humans, for administration alone or in combination with one or more other vaccines. For the sake of clarity, such vaccines as set forth in the Licensed Patent Rights are limited to those that combine Licensed Patent Rights with Licensee's proprietary technology and specifically excludes nucleic acid-based vaccines.

The use of the Licensed Materials listed in Appendix B is limited to internal research, quality control and characterization of Licensed Products only.

7) Appendix C - Royalties

In Appendix C, Royalties Section III, add Royalty add (4) d and (5):

**4.** [***] dollars [***] when the aggregate Net Sales of all Licensed Products reaches [***] dollars [***],

**5.** If the Licensee is required to pay royalties to one or more Third Parties in order to make and have made, use and have used, sell and have sold, offer to sell, or import any License Products in the Licensed Field of Use, or to practice and have practiced any,

[***]
Licensed Processes in the Licensed Field of Use (collectively “Third Party Royalties”), then the Licensee shall deduct [***] percent [***] for each [***] percent royalty due to a Third Party up to a maximum of [***] percent [***] deduction from the royalty rate on Net Sales set forth under Paragraphs 6.3 of this Agreement.

Delete Section IV in its entirety and replace with:

The Licensee agrees to pay the NIAID Benchmark royalties within [***] of Licensee’s achieving each of the following Benchmarks:

(a) [***] dollars [***] upon dosing of first patient in first Phase I Clinical Trial for the first and all subsequent indications in the Licensed Field of Use;

(b) [***] dollars [***] upon dosing of first patient in first Phase II Clinical Trial for the first indication in the Licensed Field of Use;

(c) [***] dollars [***] upon dosing of first patient in first Phase II Clinical Trial for the second indication in the Licensed Field of Use;

(d) [***] dollars [***] upon dosing of first patient in first Phase II Clinical Trial for the third indication in the Licensed Field of Use;

(e) [***] dollars [***] upon dosing of first patient in first Phase III Clinical Trial for the first indication in the Licensed Field of Use;

(f) [***] dollars [***] upon dosing of first patient in first Phase III Clinical Trial for the second indication in the Licensed Field of Use;

(g) [***] thousand [***] upon dosing of first patient in first Phase III Clinical Trial for the third indication in the Licensed Field of Use;

(h) [***] dollars [***] upon marketing approval received from a Regulatory Authority in the US or first Major Market outside US for the first indication in the Licensed Field of Use; and

(i) [***] dollars [***] upon marketing approval received from a Regulatory Authority in the US or first Major Market outside US for the second indication in the Licensed Field of Use.

(j) [***] dollars [***] upon marketing approval received from a Regulatory Authority in the US or first Major Market outside US for the third indication in the Licensed Field of Use.

The Benchmark royalties shall be payable only upon the initial achievement of such Benchmark exercised in performance of the Licensed Field of Use and no amounts shall be due hereunder for subsequent or repeated achievement of such Benchmark.

8) Appendix D – Benchmarks and Performance

Delete Appendix D in its entirety and replace with:

[***]
The Licensee agrees to the following Benchmarks for its performance under this Agreement and, within thirty (30) days of achieving a Benchmark, shall notify the NIAID that the Benchmark has been achieved.

**Benchmarks** for elderly RSV vaccination indication

I. Submission of IND or Foreign Equivalent application to Regulatory Authority: Second (2nd) Quarter [***]

II. Dosing of first patient in Phase I Clinical Trial: Initiation by Fourth (4th) Quarter [***]

III. Dosing of first patient in Phase Ib or II Clinical Trial: Initiation by Fourth (4th) Quarter [***]

IV. Dosing of first patient in Phase III Clinical Trial: Initiation by Fourth (4th) Quarter [***]

V. Submission of BLA or Foreign Equivalent in in the US or first Major Market outside US to a Regulatory Authority: Third (3rd) Quarter [***]

VI. Marketing approval in the US or first Major Market outside US by a Regulatory Authority: Third (3rd) Quarter [***]

**Benchmarks** for maternal RSV vaccination for prophylaxis in newborn indication

I. Submission of IND or Foreign Equivalent application to Regulatory Authority: Fourth (4th) Quarter [***]

II. Dosing of first patient in Phase I Clinical Trial: Initiation by Fourth (4th) Quarter [***]

III. Dosing of first patient in Phase Ib or II Clinical Trial: Initiation by Fourth (4th) Quarter [***]

IV. Dosing of first patient in Phase III Clinical Trial: Initiation by Fourth (4th) Quarter [***]

V. Submission of BLA Foreign Equivalent in the US or first Major Market outside US to a Regulatory Authority: Third (3rd) Quarter [***]

VI. Marketing approval in the US or first Major Market outside US by a Regulatory Authority: Third (3rd) Quarter [***]

**Benchmarks** for MPV vaccination (either in combination with RSV or alone) indication

I. Submission of IND or Foreign Equivalent application to Regulatory Authority: Fourth (4th) Quarter [***]

II. Dosing of first patient in Phase I Clinical Trial: Initiation by Fourth (4th) Quarter [***]

III. Dosing of first patient in Phase Ib or II Clinical Trial: Initiation by Fourth (4th) Quarter [***]

IV. Dosing of first patient in Phase III Clinical Trial: Initiation by Fourth (4th) Quarter [***]

[***]

CONFIDENTIAL - NIH
Second Amendment of [***] Icosavax, Inc. July 2020
Model 10-2015 Page 5 of 10
1) Within sixty (60) days of the execution of this Second Amendment, the Licensee shall pay the NIAID an amendment issue royalty in the sum of [***] US Dollars [***] and payment options may be found in Attachment 2.

2) In the event any provision(s) of the Agreement is/are inconsistent with Attachment 1 and/or 2, such provision(s) is/are hereby amended to the extent required to avoid such inconsistency and to give effect to the shipping and payment information in such Attachment 1 and/or 2.

3) All terms and conditions of the Agreement not herein amended remain binding and in effect.

4) The terms and conditions of this Second Amendment shall, at the NIAID’s sole option, be considered by the NIAID to be withdrawn from the Licensee’s consideration and the terms and conditions of this Second Amendment, and the Second Amendment itself, to be null and void, unless this Second Amendment is executed by the Licensee and a fully executed original is received by the NIAID within sixty (60) days from the date of the NIAID’s signature found at the Signature Page.

5) This Second Amendment is effective upon execution by all parties.

SIGNATURES BEGIN ON NEXT PAGE
SECOND AMENDMENT TO [***]

SIGNATURE PAGE

In Witness Whereof, the parties have executed this Second Amendment on the dates set forth below. Any communication or notice to be given shall be forwarded to the respective addresses listed below.

For the IC:

/s/ Michael R. Mowatt 8/20/2020
Michael R. Mowatt, PhD. Date
Director
Technology Transfer and Intellectual Property Office, NIAID
National Institutes of Health

Mailing Address or E-mail Address for Agreement notices and reports:

License Compliance and Administration
Monitoring & Enforcement
Office of Technology Transfer
National Institutes of Health
6011 Executive Boulevard, Suite 325
Rockville, Maryland 20852-3804 U.S.A.

E-mail: LicenseNotices_Reports@mail.nih.gov

For the Licensee (Upon information and belief, the undersigned expressly certifies or affirms that the contents of any statements of the Licensee made or referred to in this document are truthful and accurate.):

/s/ Adam Simpson 9/9/2020
Signature of Authorized Official Date

Name: Adam Simpson
Title: CEO, Icosavax, Inc.

I. Official and Mailing Address for Agreement notices:

Cassia Cearley
Name
SVP, Operations
Title
Mailing Address:

[***]

CONFIDENTIAL - NIH
Second Amendment of [***] Icosavax, Inc. July 2020
Model 10-2015 Page 7 of 10
Icosavax, Inc.
1616 Eastlake Ave. E., Suite 208
Seattle, WA 98116

Email Address: [***]  
Phone: [***]  
Fax:  

II. Official and Mailing Address for Financial notices (the Licensee's contact person for royalty payments):

Accounts Payable
c/o: Cassia Cearley

Name  
SVP, Operations
Title

Mailing Address:

Icosavax, Inc.
1616 Eastlake Ave. E., Suite 208
Seattle, WA 98116

Email Address: [***]  
Phone: [***]  
Fax:  

Any false or misleading statements made, presented, or submitted to the Government, including any relevant omissions, under this Agreement and during the course of negotiation of this Agreement are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§3801-3812 (civil liability) and 18 U.S.C. §1001 (criminal liability including fine(s) or imprisonment).

[***]  
CONFIDENTIAL - NIH  
Second Amendment of [***]  
Icosavax, Inc.  
Model 10-2015  
July 2020  
Page 8 of 10
CONFIDENTIAL - NIH
Second Amendment of [***] Icosavax, Inc.
Model 10-2015 Page 10 of 10

July 2020
Exhibit 10.15

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.

GRANT AGREEMENT
Investment ID [***]

AGREEMENT SUMMARY & SIGNATURE PAGE

GRANTEE INFORMATION
Name: Icosavax, Inc.
Tax Status: Not exempt from federal income tax under U.S. IRC § 501(c)(3)
Expenditure Responsibility: Code.
Mailing Address: [***]
Primary Contact: Adam Simpson, [***]

FOUNDATION INFORMATION
Mailing Address: [***]
Primary Contact: Harry Kleanthous, Senior Program Officer, Vaccine Discovery & Human Immunobiology, Global Health, [***]

AGREEMENT INFORMATION
Title: IND prep and FIH Phase 1 study of SARS-CoV-2 RBD VLP vaccine
"Charitable Purpose": To develop, manufacture and conduct clinical testing of a novel nanoparticle displaying a SARS-CoV2 vaccine co-administered with a novel adjuvant.
"Start Date": Date of last signature
"End Date": March 31, 2022
This Agreement includes and incorporates by this reference:
• Grant Amount and Reporting & Payment Schedule (Attachment A)
• Terms and Conditions (Attachment B)
• Investment Document (date submitted August 12, 2020)
• Budget (date submitted July 16, 2020)

THIS AGREEMENT is between Icosavax, Inc. ("You" or "Grantee") and the Bill & Melinda Gates Foundation ("Foundation"), and is effective as of the date of last signature. Each party to this Agreement may be referred to individually as a "Party" and together as the "Parties." As a condition of this grant, the Parties enter into this Agreement by having their authorized representatives sign below.

BILL & MELINDA GATES FOUNDATION

/s/ Harry Kleanthous
By: Harry Kleanthous
Title: SPO D&TS Vaccines & Human Immunobiology
Date: September 21, 2020

ICOSAVAX, INC.

/s/ Adam Simpson
By: Adam Simpson
Title: Chief Executive Officer
Date: September 24, 2020

1 of 8
GRANT AMOUNT
The Foundation will pay You the total grant amount specified in the Reporting & Payment Schedule below. The Foundation’s Primary Contact must approve in writing any Budget cost category change of more than 10%.

REPORTING & PAYMENT SCHEDULE
Payments are subject to Your compliance with this Agreement, including Your achievement, and the Foundation’s approval, of any applicable targets, milestones, and reporting deliverables required under this Agreement. The Foundation may, in its reasonable discretion, modify payment dates or amounts and will notify You of any such changes in writing.

REPORTING
You will submit reports according to the Reporting & Payment Schedule using the Foundation’s templates or forms, which the Foundation will make available to You and which may be modified from time to time. For a progress or final report to be considered satisfactory, it must demonstrate meaningful progress against the targets or milestones for that investment period. If meaningful progress has not been made, the report should explain why not and what adjustments You are making to get back on track. Please notify the Foundation’s Primary Contact if You need to add or modify any targets or milestones. The Foundation must approve any such changes in writing. You agree to submit other reports the Foundation may reasonably request.

ACCOUNTING FOR PERSONNEL TIME
You will track the time of all employees, contingent workers, and any other individuals whose compensation will be paid in whole or in part by Grant Funds. Such individuals will keep records (e.g., timesheets) of actual time worked on the Project in increments of sixty minutes or less and brief descriptions of tasks performed. You will report actual time worked consistent with those records in Your progress and final budget reports. You will submit copies of such records to the Foundation upon request.

REPORTING & PAYMENT SCHEDULE

<table>
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<th>Target, Milestone, or Reporting Deliverable</th>
<th>Due By</th>
<th>Payment Date</th>
<th>Payment Amount (U.S.$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date to December 31, 2020</td>
<td>Countersigned Agreement</td>
<td>Within 15 days after receipt of countersigned Agreement</td>
<td>$3,999,899.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completion of Integrated Product Development Plan (IPDP) and Global Access Commitment Agreement (GACA)</td>
<td>December 1, 2020</td>
<td>December 2020</td>
<td>$2,700,000.00</td>
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<tr>
<td></td>
<td>ER Report</td>
<td>February 28, 2021</td>
<td></td>
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<tr>
<td></td>
<td>Updated organizational financial statements</td>
<td>April 15, 2021</td>
<td>April 2021</td>
<td>$3,300,000.00</td>
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<td>January 1, 2021 to December 31, 2021</td>
<td>Regulatory Submission</td>
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<td></td>
<td>Final ER Report</td>
<td>February 28, 2022</td>
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<tr>
<td>Start Date to End Date</td>
<td></td>
<td>May 31, 2022</td>
<td></td>
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</tbody>
</table>

Total Grant Amount $9,999,899.00
This Agreement is subject to the following terms and conditions.

PROJECT SUPPORT

PROJECT DESCRIPTION AND CHARITABLE PURPOSE

The Foundation is awarding You this grant to carry out the project described in the Investment Document ("Project") in order to further the Charitable Purpose. The Foundation, in its discretion, may approve in writing any request by You to make non-material changes to the Investment Document.

MANAGEMENT OF FUNDS

USE OF FUNDS

You may not use funds provided under this Agreement ("Grant Funds") for any purpose other than the Project. You may not use Grant Funds to reimburse any expenses You incurred prior to the Start Date. At the Foundation's request, You will repay any portion of Grant Funds and/or Income used or committed in material breach of this Agreement, as determined by the Foundation in its discretion.

INVESTMENT OF FUNDS

You must invest Grant Funds in highly liquid investments with the primary objective of preservation of principal (e.g., interest-bearing bank accounts or a registered money market mutual fund) so that the Grant Funds are available for the Project. Together with any progress or final reports required under this Agreement, You must report the amount of any currency conversion gains (or losses) and the amount of any interest or other income generated by the Grant Funds (collectively, "Income"). Any Income must be used for the Project.

SEGREGATION OF FUNDS

You must maintain Grant Funds in a physically separate bank account or a separate bookkeeping account maintained as part of Your financial records and dedicated to the Project.

GLOBAL ACCESS

GLOBAL ACCESS COMMITMENT

You will conduct and manage the Project and the Funded Developments in a manner that ensures Global Access. Your Global Access commitments will survive the term of this Agreement. “Funded Developments” means the products, services, processes, technologies, materials, software, data, other innovations, and intellectual property resulting from the Project (including modifications, improvements, and further developments to Background Technology). “Background Technology” means any and all products, services, processes, technologies, materials, software, data, or other innovations, and intellectual property created by You or a third party prior to or outside of the Project used as part of the Project. “Global Access” means: (a) the knowledge and information gained from the Project will be promptly and broadly disseminated; and (b) the Funded Developments will be made available and accessible at an affordable price (i) to people most in need within developing countries, or (ii) in support of the U.S. educational system and public libraries, as applicable to the Project.

GLOBAL ACCESS MILESTONES

To further define Your Global Access commitments, You are required to complete a Global Access Strategy and any other Global Access activities and documentation listed in the Reporting & Payment Schedule. The Global Access Strategy should address the following concepts with respect to all Funded Developments: (a) identification of Background Technology at the outset of the Project and any Funded Developments created during the Project and specific strategies to ensure access to such Funded Developments and Background Technology; (b) agreements and/or procedures for transfers of materials and data among Project Collaborators or third parties relevant to the Project; (c) reporting processes for the creation of Funded Developments to both the Project management team and to the Foundation as well as the publishing and dissemination of the knowledge and information gained from the Project; (d) strategies to secure, manage and allocate intellectual property rights.
associated with the Funded Developments or Background Technology in a way that ensures Global Access while providing incentives for future potential private sector participation; and (e) anticipated development, commercialization and sustainability strategies during and after the Project to ensure that Global Access can be met.

You may not materially change the plans and strategies contained in any Global Access documents after they have been approved by the Foundation without the Foundation's prior written approval. You will provide the Foundation with updates to the Global Access Strategy during each year of the Project describing any new or modified approaches with respect to Funded Developments and Background Technology, and related agreements, taking into account any new product, technology, and commercialization developments and/or market information. "Global Access Strategy" means a written document, subject to the Foundation's approval, describing how You intend to achieve Global Access given the particular circumstances of the Project. “Project Collaborators” means all current and future subgrantees, subcontractors, partners, agents, affiliates, or other parties who provide any input to the Project.

HUMANITARIAN LICENSE

Subject to applicable laws and for the purpose of achieving Global Access, You grant the Foundation a nonexclusive, perpetual, irrevocable, worldwide, royalty-free, fully paid up, sublicensable license to make, use, sell, offer to sell, import, distribute, copy, create derivative works, publicly perform, and display Funded Developments and Essential Background Technology. "Essential Background Technology" means Background Technology that is: (a) owned, controlled, or developed by You, or in-licensed with the right to sublicense; and (b) either incorporated into a Funded Development or reasonably required to exercise the license to a Funded Development. You confirm that You have retained sufficient rights in the Funded Developments and Essential Background Technology to grant this license. You must ensure this license survives the assignment or transfer of Funded Developments or Essential Background Technology. On request, You must promptly make available the Funded Developments and Essential Background Technology to the Foundation for use solely under this license. If You demonstrate to the satisfaction of the Foundation that Global Access can best be achieved without this license, the Foundation and You will make good faith efforts to modify or terminate this license, as appropriate.

PUBLICATION

Consistent with Your Global Access commitments, if the Project description specifies Publication or Publication is otherwise requested by the Foundation, You will seek prompt Publication of any Funded Developments consisting of data and results. “Publication” means publication in a peer-reviewed journal or other method of public dissemination specified in the Project description or otherwise approved by the Foundation in writing. Publication may be delayed for a reasonable period for the sole purpose of seeking patent protection, provided the patent application is drafted, filed, and managed in a manner that best furthers Global Access. If You seek Publication in a peer-reviewed journal, such Publication shall be under "open access" terms and conditions consistent with the Foundation’s Open Access Policy available at: www.gatesfoundation.org/How-We-Work/General-Information/Open-Access-Policy, which may be modified from time to time. Nothing in this section shall be construed as requiring Publication in contravention of any applicable ethical, legal, or regulatory requirements. You will mark any Funded Development subject to this clause with the appropriate notice or attribution, including author, date and copyright (e.g., © 20<> <Name>).

DATA ACCESS

The Foundation believes the requirement that the knowledge and information gained from the Project be promptly and broadly disseminated extends to data and datasets generated through the Project. During the term of this Agreement, You will make cleaned datasets available to the Foundation upon request, at the time they are generated, and for internal Foundation use only. Following the End Date, You will make all datasets available to the Foundation, upon request and for internal Foundation use only. From the date that is six (6) months after the End Date, unless otherwise agreed with the Foundation, You will make all data generated under the Project available to the public in a manner and under conditions agreed to with the Foundation.

INTELLECTUAL PROPERTY REPORTING

During the term of this Agreement and for 5 years after, You will submit upon request annual intellectual property reports relating to the Funded Developments, Background Technology, and any related agreements using the Foundation's templates or forms, which the Foundation may modify from time to time.
SUBGRANTS AND SUBCONTRACTS

You may not make subgrants under this Agreement. You have the exclusive right to select subcontractors to assist with the Project.

RESPONSIBILITY FOR OTHERS

You are responsible for (a) all acts and omissions of any of Your trustees, directors, officers, employees, subgrantees, subcontractors, contingent workers, agents, and affiliates assisting with the Project, and (b) ensuring their compliance with the terms of this Agreement.

PROHIBITED ACTIVITIES

ANTI-TERRORISM

You will not use funds provided under this Agreement, directly or indirectly, in support of activities (a) prohibited by U.S. laws relating to combating terrorism; (b) with persons on the List of Specially Designated Nationals (www.treasury.gov/sdn) or entities owned or controlled by such persons; or (c) in or with countries or territories against which the U.S. maintains comprehensive sanctions (currently, Cuba, Iran, Syria, North Korea, and the Crimea Region of Ukraine), including paying or reimbursing the expenses of persons from such countries or territories, unless such activities are fully authorized by the U.S. government under applicable law and specifically approved by the Foundation in its sole discretion.

ANTI-CORRUPTION; ANTI-BRIBERY

You will not offer or provide money, gifts, or any other things of value directly or indirectly to anyone in order to improperly influence any act or decision relating to the Foundation or the Project, including by assisting any party to secure an improper advantage. Training and information on compliance with these requirements are available at www.learnfoundationlaw.org.

POLITICAL ACTIVITY AND ADVOCACY

You may not use Grant Funds to influence the outcome of any election for public office or to carry on any voter registration drive. You may not use Grant Funds to support lobbying activity or to otherwise support attempts to influence local, state, federal, or foreign legislation. Your strategies and activities, and any materials produced with Grant Funds, must comply with applicable local, state, federal, or foreign lobbying law. You agree to comply with lobbying, gift, and ethics rules applicable to the Project.

OTHER

PUBLICITY

A Party may publicly disclose information about the award of this grant, including the other Party's name, the total amount awarded, and a description of the Project, provided that a Party obtains prior written approval before using the other Party's name for promotional purposes or logo for any purpose. Any public disclosure by You or Your subgrantees, subcontractors, contingent workers, agents, or affiliates must be made in accordance with the Foundation's then-current brand guidelines, which are available at: www.gatesfoundation.org/brandguidelines.

LEGAL ENTITY AND AUTHORITY

You confirm that: (a) You are an entity duly organized or formed, qualified to do business, and in good standing under the laws of the jurisdiction in which You are organized or formed; (b) You are not an individual (i.e., a natural person) or a disregarded entity (e.g., a sole proprietor or sole-owner entity) under U.S. law; (c) You have the right to enter into and fully perform this Agreement; and (d) Your performance will not violate any agreement or obligation between You and any third party. You will notify the Foundation immediately if any of this changes during the term of this Agreement.

COMPLIANCE WITH LAWS

In carrying out the Project, You will comply with all applicable laws, regulations, and rules and will not infringe, misappropriate, or violate the intellectual property, privacy, or publicity rights of any third party.
COMPLIANCE WITH REQUIREMENTS

You will conduct, control, manage, and monitor the Project in compliance with all applicable ethical, legal, regulatory, and safety requirements, including applicable international, national, local, and institutional standards (“Requirements”). You will obtain and maintain all necessary approvals, consents, and reviews before conducting the applicable activity. As a part of Your annual progress report to the Foundation, You must report whether the Project activities were conducted in compliance with all Requirements.

If the Project involves:

a. any protected information (including personally identifiable, protected health, or third-party confidential), You will not disclose this information to the Foundation without obtaining the Foundation’s prior written approval and all necessary consents to disclose such information;

b. children or vulnerable subjects, You will obtain any necessary consents and approvals unique to these subjects; and/or

c. any trial involving human subjects, You will adhere to current Good Clinical Practice as defined by the International Council on Harmonisation (ICH) E-6 Standards (or local regulations if more stringent) and will obtain applicable trial insurance.

Any activities by the Foundation in reviewing documents and providing input or funding does not modify Your responsibility for determining and complying with all Requirements for the Project.

RELIANCE

You acknowledge that the Foundation is relying on the information You provide in reports and during the course of any due diligence conducted prior to the Start Date and during the term of this Agreement. You represent that the Foundation may continue to rely on this information and on any additional information You provide regarding activities, progress, and Funded Developments.

INDEMNIFICATION

If the Project involves clinical trials, trials involving human subjects, post-approval studies, field trials involving genetically modified organisms, experimental medicine, or the provision of medical/health services (“Indemnified Activities”), You will indemnify, defend, and hold harmless the Foundation and its trustees, employees, and agents (“Indemnified Parties”) from and against any and all demands, claims, actions, suits, losses, damages (including property damage, bodily injury, and wrongful death), arbitration and legal proceedings, judgments, settlements, or costs or expenses (including reasonable attorneys’ fees and expenses) (collectively, “Claims”) arising out of or relating to the acts or omissions, actual or alleged, of You or Your employees, subgrantees, subcontractors, contingent workers, agents, and affiliates with respect to the Indemnified Activities. You agree that any activities by the Foundation in connection with the Project, such as its review or proposal of suggested modifications to the Project, will not modify or waive the Foundation’s rights under this paragraph. An Indemnified Party may, at its own expense, employ separate counsel to monitor and participate in the defense of any Claim. Your indemnification obligations are limited to the extent permitted or precluded under applicable federal, state or local laws, including federal or state tort claims acts, the Federal Anti-Deficiency Act, state governmental immunity acts, or state constitutions. Nothing in this Agreement will constitute an express or implied waiver of Your governmental and sovereign immunities, if any.

INSURANCE

You will maintain insurance coverage sufficient to cover the activities, risks, and potential omissions of the Project in accordance with generally-accepted industry standards and as required by law. You will ensure Your subgrantees and subcontractors maintain insurance coverage consistent with this section.

TERM AND TERMINATION

TERM

This Agreement commences on the Start Date and continues until the End Date, unless terminated earlier as provided in this Agreement. The Foundation, in its discretion, may approve in writing any request by You for a no-cost extension, including amending the End Date and adjusting any affected reporting requirements.

TERMINATION

The Foundation may modify, suspend, or discontinue any payment of Grant Funds or terminate this Agreement if: (a) the Foundation is not reasonably satisfied with Your progress on the Project; (b) there are significant changes
to Your leadership or other factors that the Foundation reasonably believes may threaten the Project's success; (c) there is a change in Your control; (d) there is a change in Your tax status; or (e) You fail to comply with this Agreement.

RETURN OF FUNDS
Any Grant Funds, plus any Income, that have not been used for, or committed to, the Project upon expiration or termination of this Agreement, must be returned promptly to the Foundation.

MONITORING, REVIEW, AND AUDIT
The Foundation may monitor and review Your use of the Grant Funds, performance of the Project, and compliance with this Agreement, which may include onsite visits to assess Your organization's governance, management and operations, discuss Your program and finances, and review relevant financial and other records and materials. In addition, the Foundation may conduct audits, including onsite audits, at any time during the term of this Agreement, and within four years after Grant Funds have been fully spent. Any onsite visit or audit shall be conducted at the Foundation's expense, following prior written notice, during normal business hours, and no more than once during any 12-month period.

INTERNAL OR THIRD PARTY AUDIT
If during the term of this Agreement You are audited by your internal audit department or by a third party, You will provide the audit report to the Foundation upon request, including the management letter and a detailed plan for remediating any deficiencies observed ("Remediation Plan"). The Remediation Plan must include (a) details of actions You will take to correct any deficiencies observed, and (b) target dates for successful completion of the actions to correct the deficiencies.

RECORD KEEPING
You will maintain complete and accurate accounting records and copies of any reports submitted to the Foundation relating to the Project. You will retain such records and reports for 4 years after Grant Funds have been fully spent. At the Foundation's request, You will make such records and reports available to enable the Foundation to monitor and evaluate how Grant Funds have been used or committed.

SURVIVAL
A Party's obligations under this Agreement will be continuous and survive expiration or termination of this Agreement as expressly provided in this Agreement or otherwise required by law or intended by their nature.

GENERAL

ENTIRE AGREEMENT, CONFLICTS, AND AMENDMENTS
This Agreement contains the entire agreement of the Parties and supersedes all prior and contemporaneous agreements concerning its subject matter. If there is a conflict between this Agreement and the Investment Document this Agreement will prevail. Except as specifically permitted in this Agreement, no modification, amendment, or waiver of any provision of this Agreement will be effective unless in writing and signed by authorized representatives of both Parties.

NOTICES AND APPROVALS
Written notices, requests, and approvals under this Agreement must be delivered by mail or email to the other Party's primary contact specified on the Agreement Summary & Signature Page, or as otherwise directed by the other Party.

SEVERABILITY
Each provision of this Agreement must be interpreted in a way that is enforceable under applicable law. If any provision is held unenforceable, the rest of the Agreement will remain in effect.

ASSIGNMENT
You may not assign, or transfer by operation of law or court order, any of Your rights or obligations under this Agreement without the Foundation's prior written approval. This Agreement will bind and benefit any permitted successors and assigns.
COUNTERPARTS AND ELECTRONIC SIGNATURES

Except as may be prohibited by applicable law or regulation, this Agreement and any amendment may be signed in counterparts, by facsimile, PDF, or other electronic means, each of which will be deemed an original and all of which when taken together will constitute one agreement. Facsimile and electronic signatures will be binding for all purposes.
Dear Adam,

Please review the amendment details below:

**AMENDMENT INFORMATION**

Agreement to be Amended: Grant agreement between the Bill & Melinda Gates Foundation and Icosavax, Inc. effective September 24, 2020 and bearing Investment ID INV-[***]

Amendment Purpose: Updated Reporting & Payment Schedule

Amendment Date: Date of this email

**THIS AMENDMENT** amends, and is made part of, the above-referenced Agreement and is effective as of the date of this email. Capitalized terms not defined in this Amendment will have the meaning provided in the Agreement. Except as modified by this Amendment, all other terms and conditions of the Agreement remain in full force and effect. In the event of a conflict between the Agreement and this Amendment, the terms of this Amendment will prevail.

**UPDATED REPORTING & PAYMENT SCHEDULE**

This Amendment notifies you that the reporting and/or payment schedule for Your grant has changed. Your updated Reporting & Payment Schedule is deleted and replaced with the following:

**REPORTING & PAYMENT SCHEDULE**

<table>
<thead>
<tr>
<th>Investment Period</th>
<th>Target, Milestone, or Reporting Deliverable</th>
<th>Due By</th>
<th>Payment Date</th>
<th>Payment Amount (U.S.$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countersigned Agreement</td>
<td>PAID</td>
<td>$3,999,899.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion of Integrated Product Development Plan (IPDP) and Global Access Commitment Agreement (GACA)</td>
<td>January 31, 2021</td>
<td>February 2021</td>
<td>$2,700,000.00</td>
<td></td>
</tr>
<tr>
<td>Start Date to December 31, 2020</td>
<td>ER Report</td>
<td>February 28, 2021</td>
<td>April 2021</td>
<td>$3,300,000.00</td>
</tr>
<tr>
<td>January 1, 2021 to December 31, 2021</td>
<td>Regulatory Submission Updated organizational financial statements</td>
<td>April 15, 2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start Date to End Date</td>
<td>ER Report</td>
<td>February 28, 2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final ER Report</td>
<td>May 31, 2022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Grant Amount** $9,999,899.00
Please reply to this email to confirm your agreement to the above changes.

Best,

Audra
Audra Favini
[***]

Bill & Melinda Gates Foundation
www.gatesfoundation.org
IJ-Facebook
1:Twitter
Il Impatient Optimists
GLOBAL ACCESS AND PRICE COMMITMENT AGREEMENT

Investment ID [***]

This Global Access and Price Commitment Agreement ("Agreement"), effective as of the date of the last signature below, is made by and between the Bill & Melinda Gates Foundation (the "Foundation") and Icosavax, Inc. ("Icosavax"), in connection with the Grant Agreement for [***] between the Parties effective September 24, 2020 ("Grant Agreement"). Unless otherwise defined in this Agreement, capitalized terms have the same meaning as given in the Grant Agreement. This Agreement is a part of, and is incorporated into, the Grant Agreement.

1. Charitable Purpose and Use of Funds

The Foundation wishes to encourage innovative approaches to ensuring the wide availability of affordable, safe, and effective lifesaving vaccines for use in Eligible Countries (as defined below), which is expected to significantly improve health outcomes for those most in need in such countries, and in particular to encourage the supply of safe and effective vaccines that vaccinate against covid-19 ("Covid"), which are produced at a price and on a timeline that meets the critical needs for achieving the goal of expanding the supply of such vaccines for the Eligible Countries (the "Charitable Purpose").

Icosavax possesses expertise and experience in the development and manufacturing of vaccines using a nanoparticle display technology. Icosavax is in the process of developing and manufacturing a two-component (i.e., Components A and B) virus-like particle containing the receptor binding domain for SARS-CoV-2 using Icosavax’s proprietary technology for pandemic use, which is anticipated to be available in multi-dose vials (the "Covid Vaccine").

In furtherance of the Charitable Purpose, the Foundation has provided grant funding to Icosavax in accordance with the Grant Agreement, to, among other things, (i) assemble Components A and Components B into the Covid Vaccine, and related fill and finish, (ii) develop regulatory submission-enabling data regarding the Covid Vaccine, and (iii) conduct a Phase I study to assess safety and immunogenicity of the Covid Vaccine in healthy adults and older adults. Pursuant to the Grant Agreement, Grant Funds will be used solely to fund the Project.

2. Definitions

The following terms shall have the following meanings:

[***]

"Annual Period" means each 12-month period commencing on the date that Icosavax and/or its manufacturing and/or commercial partner(s) commenced supplying Covid Vaccine to a Public Sector Purchaser. The first Annual Period is referred to as Annual Period 1 and so forth.
“Annual Volume Commitment” has the meaning given in Section 3(b)(iii).

“Annual Volume Commitment Term” has the meaning given in Section 3(b)(iv).

“Cost of Goods Sold” or “COGS” means the total cost of production, manufacturing, packaging, temperature monitoring devices as required by WHO guidelines on the international packaging and shipping of vaccines (WHO/IVB/05.23) or any later revision, vaccine vial monitors, and delivery in accordance with INCOTERM FCA to the designated airport as determined in accordance with the Foundation’s COGS Principles and Assessment Methodology Handbook available at: https://docs.gatesfoundation.org/Documents/Production_Economics_Vaccines_2016.pdf, which may be modified from time to time.

“Eligible Countries” means all GAVI Eligible Countries and GAVI Transitioned Countries plus other Low and Low-Middle Income Countries as identified by the World Bank and any other counties eligible for financial support by the GAVI COVAX AMC. As of the date of the last signature below, Eligible Countries consist of those countries listed in Exhibit A. Based on the definition of Eligible Countries as set forth in this Section 2, countries may be removed from or added to Exhibit A.

“GAVI Eligible Countries” means all countries which are deemed GAVI-eligible countries by GAVI, including those in preparatory or accelerated transition, as such GAVI-eligible countries may be added or deleted by the GAVI from time to time.

“GAVI Transitioned Countries” means all countries which were at one time deemed GAVI-eligible countries by GAVI.

“Government or Governmental Authority” means (i) the government of the United States, or any other state, provincial, local, or foreign government (as applicable), and any department, subdivision, agency, or authority of any of the forgoing or (ii) any court, tribunal or regulatory body having competent jurisdiction over Icosavax, the Foundation, Covid Vaccine, or any of the transactions contemplated by this Agreement, as applicable.

“Person” means (i) an individual; (ii) a partnership, a limited liability partnership, a corporation, a limited liability company, an association, a joint stock company, a trust, an estate, or any other type of entity; (iii) a joint venture; (iv) an unincorporated organization; (v) a Government or Governmental Authority; or (vi) any non-governmental organization not otherwise covered by the foregoing.

“Price Commitment” has the meaning given in Section 3(b)(ii).

“Project” shall mean the project described in the Investment Document referenced in the Grant Agreement.

“Public Sector Purchaser” shall mean any of the following seeking to purchase Covid Vaccine for use in an Eligible Country:
(i) Governments including government ministries and agencies, together with government-funded institutions, such as hospitals and prison services in those countries;

(ii) NGOs including those recognized by the applicable local government authority as well as UN-related organizations working for or in those countries, including the International Organization for Migration and UNICEF, WHO, or any other UN agency;

(iii) Not-for-profit organizations including, but not limited to, Medecins Sans Frontieres, Save-the-Children, OXFAM and the International Committee of the Red Cross;

(iv) Public private partnerships that have agreed to public pricing or other collaborations or institutions bringing WHO-approved vaccines at affordable prices to patients in the private sector, including, but not limited to, GAVI; and

(v) Funding mechanisms including CEPI, GDF, UNITAID, UNFPA, PEPFAR, USAID, Global Fund, etc. and agencies based outside of an applicable Eligible Country but which are supporting implementation locally in an applicable country, including the USA-CDC and The European Union.

“Supply Agreement” means a supply agreement for [***] and information related thereto for use solely with the Covid Vaccine (including [***]) to be negotiated in good faith between Icosavax and [***], anticipated to provide for the commercial supply of up to [***] of [***] for use solely with the Covid Vaccine.

“Total Annual Doses” means the total number of doses of Covid Vaccine produced by Icosavax and/or its manufacturing and/or commercial partner(s) in a given 12-month period commencing on the date that Icosavax and/or its manufacturing and/or commercial partner(s) commenced supplying Covid Vaccine to a Public Sector Purchaser.

“WHO Prequalification” means the positive written advice provided by the WHO to United Nations agencies of the acceptability of Covid Vaccine for purchase by United Nations agencies and the inclusion of Covid Vaccine on the list of pre-qualified vaccines for such purchase.

3. Global Access Commitments

In furtherance of the Charitable Purpose, Icosavax agrees to the following “Global Access Commitments”:

(a) Prompt and Broad Dissemination of Knowledge and Information. Consistent with the Publication provisions of the Grant Agreement, Icosavax will use reasonable and diligent steps to publish results of the Project in one or more peer reviewed journal(s). In the event of an inability to obtain peer reviewed publication, Icosavax agrees to publish in a manner that the Foundation determines in its reasonable discretion satisfies the requirement that such research be published in a form that is “available to the interested public” as described in Treasury Regulation 1.501(c)(3)-1(d)(5)(ii)(c)(2).
Continued Development. In the event of successful completion of the Phase 1 study of the Covid Vaccine as described in the Project, and the Foundation has made all payments to Icosavax in accordance with the terms of the Grant Agreement, Icosavax will take reasonable steps to obtain additional funding for completing the activities necessary to further develop the Covid Vaccine beyond the Phase 1 study. Within [***] of the [***], Icosavax will have received or will have a [***] to further develop, manufacture, and/or distribute the Covid Vaccine. If Icosavax [***] and continues the development and commercialization of the Covid Vaccine, the following terms apply:

(i) **Regulatory Commitment.** Icosavax will ensure that the Essential Background Technology and Funded Developments it owns or controls now or in the future are managed in a manner to support the relevant regulatory approvals and WHO Prequalification of the Covid Vaccine.

(ii) **Price Commitment.** Icosavax will ensure that it or its manufacturing and/or commercial partner(s) sell the Covid Vaccine to Public Sector Purchasers for use in Eligible Countries for the Charitable Purpose at no more than [***] above the combined COGS for Covid Vaccine [***] (the “Price Commitment”).

(iii) **Annual Volume Commitment.** Upon obtaining applicable regulatory approvals and in accordance with applicable laws, Icosavax will use reasonable efforts to ensure that it or its manufacturing and/or commercial partner(s) will manufacture, package, label, store and ship the quantities of Covid Vaccine necessary to fulfill all purchase orders awarded and bound to Icosavax and/or its manufacturing and/or commercial partner(s) from Public Sector Purchasers to purchase Covid Vaccine for use in the Eligible Countries for the Charitable Purpose in the following quantity:

a. an annual capacity available to Eligible Countries that is at least [***] of Icosavax’s Total Annual Doses (the “Annual Volume Commitment”).

(iv) **Annual Volume Commitment Term.** Icosavax and/or its manufacturing and/or commercial partner(s) will provide the Annual Volume Commitment for a [***] period commencing on the date of first supplying the Covid Vaccine to a Public Sector Purchaser and ending on the [***] anniversary thereof (the “Annual Volume Commitment Term”).

(v) **Manufacturing and Supply.** Before finalizing a partnership with its manufacturing and/or commercial partner(s), Icosavax will ensure that its agreement(s) with these manufacturing and/or commercial partner(s) have appropriate provisions to support the furtherance of Global Access for the Charitable Purpose, including assurances that the Covid Vaccine will be provided at the Price Commitment and Annual Volume Commitment outlined above consistent with this Agreement.
(vi) **Termination of Price and Volume Commitments.** If, for [***], Icosavax and/or its manufacturing and/or commercial partner(s) fulfill all of their obligations pursuant to Section 3(b)(i)-(v) and through no fault of Icosavax and/or its manufacturing and/or commercial partner(s) there are insufficient purchase orders to enable Icosavax and/or its manufacturing and/or commercial partner(s) to sell at least [***] of Icosavax’s Total Annual Doses of Covid Vaccine, for each Annual Period, then the applicable Price Commitment and Annual Volume Commitment set forth in Section 3(b)(ii) and Section 3(b)(iii) shall terminate beginning with the next Annual Period, and the Foundation and Icosavax will meet and discuss in good faith the applicable Price Commitment and Annual Volume Commitment for the remaining Annual Periods.

(vii) **Insufficient Supply to Meet Global Demand.** If global demand for the Covid Vaccine by Public Sector Purchasers exceeds Icosavax’s and/or its manufacturing and/or commercial partner(s)’ Annual Volume Commitment, the Parties shall discuss in good faith the solution to meet such global demand, including without limitation additional funding to increase Icosavax’s and/or its manufacturing and/or commercial partner(s)’ annual capacity. If the Parties fail to reach an agreement, Icosavax will in good faith cooperate with the Foundation in making available the Funded Developments and Essential Background Technology relating to the Project available to the Foundation (or any other Person designated by the Foundation) and provide adequate tech transfer (under non-exclusive licenses with terms to be negotiated in good faith), to continue to develop the Covid Vaccine and to enable the use, design, research, development, production, manufacture, sale, distribution, import, or export of the Covid Vaccine solely for use in the Eligible Countries for the Charitable Purpose.

(viii) **ACT-A Coordination.** At the Foundation’s request, the Parties agree to negotiate in good faith to modify and amend this Agreement, including the Global Access Commitments, to align with any applicable allocation, procurement and/or coordination mechanism established under the Access to Covid-19 Tools Accelerator, a WHO-led Global Collaboration to accelerate the development, production and equitable access to new Covid-19 diagnostics, therapeutics and vaccines.

(ix) **Discontinued Activities.** In the event Icosavax and its manufacturing and commercial partner(s) decide to discontinue with the development, manufacture, supply and/or distribution of the Covid Vaccine for any reason, if requested by the Foundation, Icosavax will in good faith cooperate with the Foundation in making available the Funded Developments and Essential Background Technology relating to the Project available to the Foundation (or any other Person designated by the
Foundation), as well as assigning the Supply Agreement for use of the [***] with the Covid Vaccine, and provide adequate tech transfer (under non-exclusive licenses with terms to be negotiated in good faith), to continue to develop the Covid Vaccine and to enable the use, design, research, development, production, manufacture, sale, distribution, import, or export of the Covid Vaccine solely for use in the Eligible Countries for the Charitable Purpose.

(c) **Discontinued Development.** In the event Icosavax is unable to obtain additional funding as described in Section 3(b), if requested by the Foundation, Icosavax will in good faith cooperate with the Foundation in making available the Funded Developments and Essential Background Technology relating to the Project to the Foundation (or any other Person designated by the Foundation), as well as assigning the Supply Agreement for use of the [***] with the Covid Vaccine, and provide adequate tech transfer (under non-exclusive licenses with terms to be negotiated in good faith) to continue to develop the Covid Vaccine and to enable the use, design, research, development, production, manufacture, sale, distribution, import, or export of the Covid Vaccine solely for use in the Eligible Countries for the Charitable Purpose.

4. **Intellectual Property Rights.** To Icosavax’s knowledge, Icosavax owns or has and will own or have a valid license to all Essential Background Technology necessary for the development of the Covid Vaccine in accordance with the terms of this Agreement and the Grant Agreement. To Icosavax’s knowledge as of the date hereof, the manufacture or sale of the Covid Vaccine by Icosavax in accordance with this Agreement does not infringe any intellectual property rights of a third party to which Icosavax does not hold a valid license. Except to the extent expressly provided in this Agreement and the Grant Agreement, nothing in this Agreement shall be construed to confer any ownership interest, license or other rights upon the Foundation or any of its Affiliates or any Foundation-supported entity by implication, estoppel or otherwise as to any technology, intellectual property rights, products or materials of Icosavax or any other entity.

5. [***]. Prior to the start of the Phase 1 clinical study for the Covid Vaccine contemplated by the Project, Icosavax will have entered into an agreement for the use of [***] and information relating thereto for use in such Phase 1 clinical study. Prior to the start of the Phase III clinical study for the Covid Vaccine, Icosavax will have entered into the Supply Agreement. Notwithstanding anything contained in this Agreement and the Grant Agreement, in no event will the Funded Developments or any data or results relating to the [***] or the [***] be used in the development, commercialization, or sale of a product containing [***]. For the avoidance of doubt, this Section 5 only applies to use of data or results generated relating to [***] and/or the Covid Vaccine developed by Icosavax as described in this Agreement and the Grant Agreement and does not preclude the independent development (without the use of such data or results) of [***] for other target disease areas of interest to the Foundation and its relevant geographies.

6. **Entire Agreement, Conflicts, and Amendments.** This Agreement and the Grant Agreement contain the entire agreement of the Parties and supersedes all prior and contemporaneous agreements concerning its subject matter. Except as specifically permitted in this Agreement
and the Grant Agreement, no modification, amendment, or waiver of any provision of this Agreement will be effective unless in writing and signed by authorized representatives of both Parties.

[Signature Page Follows]
This Global Access and Price Commitment is executed by the Parties effective as of the last date of signature below.

Icosavax, Inc.  
By: /s/ Adam Simpson  
Print: Adam Simpson  
Title: Chief Executive Officer  
Date: 02/17/2021

Bill & Melinda Gates Foundation  
By: /s/ Harry Kleanthous  
Print: Harry Kleanthous  
Title: SPO D&TS Vaccines & Human Immunobiology  
Date: 02/16/2021
• Low income:
  Afghanistan,  
  Benin,  
  Burkina Faso,  
  Burundi,  
  Central African Republic,  
  Chad,  
  Congo, Dem. Rep.,  
  Eritrea,  
  Ethiopia,  
  Gambia,  
  The Guinea,  
  Guinea-Bissau,  
  Haiti,  
  Korea, Dem. People’s Rep.,  
  Liberia,  
  Madagascar,  
  Malawi,  
  Mali,  
  Mozambique,  
  Nepal,  
  Niger,  
  Rwanda,  
  Sierra Leone,  
  Somalia,  
  South Sudan,  
  Syrian Arab Republic,  
  Tajikistan,  
  Tanzania,  
  Togo,  
  Uganda,  
  Yemen, Rep.

• Lower-middle income:
  Angola,  
  Algeria,  
  Bangladesh,  
  Bhutan,  
  Bolivia,  
  Cabo Verde,  
  Cambodia,  
  Cameroon,
Comoros,
Congo,
Rep. Côte d’Ivoire,
Djibouti,
Egypt, Arab Rep.,
El Salvador,
Eswatini,
Ghana,
Honduras,
India,
Indonesia,
Kenya,
Kiribati,
Kyrgyz Republic,
Lao PDR,
Lesotho,
Mauritania,
Micronesia, Fed. Sts.,
Moldova,
Mongolia,
Morocco,
Myanmar,
Nicaragua,
Nigeria,
Pakistan,
Papua New Guinea,
Philippines,
São Tomé and Príncipe,
Senegal,
Solomon Islands,
Sri Lanka,
Sudan,
Timor-Leste,
Tunisia,
Ukraine,
Uzbekistan,
Vanuatu,
Vietnam,
West Bank and Gaza,
Zambia,
Zimbabwe

- **Additional IDA eligible:**
  
  Dominica,
  Fiji,
  Grenada,
Guyana,
Kosovo,
Maldives,
Marshall Islands,
Samoa,
St. Lucia,
St. Vincent and the Grenadines,
Tonga,
Tuvalu.