UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO**

Commission File Number 001-39045

IGM Biosciences, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**77-0349194**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
325 E. Middlefield Road	
Mountain View, CA	**94043**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 965-7873

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.01 per share	IGMS	The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES ☒ NO ☐

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," "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 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the Registrant, based on the closing price of a share of the Registrant's common stock on June 28, 2024 as reported by the Nasdaq Global Select Market on such date was approximately $50.7 million. Shares of the Registrant's common stock held by each executive officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This calculation does not reflect a determination that certain persons are affiliates of the Registrant for any other purpose.

As of February 28, 2025, the Registrant had 34,388,419 shares of common stock, $0.01 par value per share, and 25,386,983 shares of non-voting common stock, $0.01 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain sections of the Registrant's definitive Proxy Statement to be filed in connection with the Registrant's 2025 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such definitive Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the Registrant's fiscal year ended December 31, 2024.

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Special Note Regarding Forward Looking Statements

This Annual Report on Form 10-K contains forward-looking statements. All statements other than statements of historical facts contained in this report are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that are in some cases beyond our control and 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 "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "seek," "should," "target," "will" or "would," or the negative of these terms or other similar expressions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about: the implementation of our strategic plans, including our expectations regarding the 2024 Restructuring (defined below) announced in September 2024 and the 2025 Restructuring (defined below) announced in January 2025; our expectations regarding the evaluation of our internal options and potential strategic alternatives; the therapeutic applications for our IgM antibodies; the advantages of the properties of our IgM bispecific antibodies; our ability to utilize our IgM antibody platform to generate additional product candidates; our ability to advance product candidates into clinical trials; whether, and for how long, we will rely on third parties to manufacture product candidates to package, label, store and distribute our investigational product candidates; our ability and the potential to successfully manufacture and supply product candidates; potential business disruptions affecting drug discovery; expectations regarding our collaboration agreement with Genzyme Corporation, a wholly owned subsidiary of Sanofi S.A. (Sanofi), including all financial aspects of the collaboration, the potential benefits and results of the collaboration, as well as plans and objectives with respect to the collaboration; future strategic arrangements and/or collaborations and the potential benefits of such arrangements; our expectations regarding the impact of macroeconomic conditions, such as inflation, supply chain disruptions and economic volatility; our expectations regarding the impact of health epidemics, such as the COVID-19 pandemic, and other catastrophic events; our anticipated use of our existing resources; our estimates regarding expenses, future revenue, capital requirements and needs for additional financing and our ability to obtain additional capital; the sufficiency of our existing cash, cash equivalents, and marketable securities to fund our future operating expenses and capital expenditure requirements; our expectations regarding the impact of recently issued accounting standards; our ability to retain the continued service of our key personnel and to identify, hire and retain additional qualified professionals; the scope of protection we are able to establish and maintain for intellectual property rights; our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately; developments relating to our competitors and our industry, including competing product candidates and therapies; and the ability of future clinical trials to demonstrate the safety and efficacy of product candidates, and other positive results.

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate and financial trends that we believe may affect our business, financial condition, results of operations, and prospects, and these forward-looking statements are not guarantees of future performance or development. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K and are subject to a number of risks, uncertainties, and assumptions described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, 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. 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, or otherwise.

PART I

Item 1. Business.

Overview

We are a biotechnology company that has historically been focused on the development of IgM antibodies for the treatment of cancer and autoimmune and inflammatory diseases. IgM antibodies have inherent properties that we believe may enable them to bind more strongly to targets on the surface of cells than comparable IgG antibodies.

We have created a portfolio of patents and patent applications, know-how and trade secrets directed to our platform technology and we retain worldwide commercial rights to all of our product candidates, other than those being developed in partnership with Sanofi and the intellectual property related thereto. We have an ongoing collaboration and license agreement with Sanofi to generate and develop IgM antibodies for three immunology targets.

In September 2024, we announced a strategic pivot to focus exclusively on autoimmunity. We also announced an extension of our cash runway, driven by a reduction in workforce and a reduction in future spending on the research and development of aplitabart and other oncology candidates (the 2024 Restructuring). Further, in January 2025, we announced a strategic update to halt further development of imvotamab and IGM-2644 for autoimmune diseases and a reduction in workforce by approximately 73% (the 2025 Restructuring) to preserve cash. We also announced we are evaluating internal options as well as potential strategic alternatives with the goal of maximizing value for our stockholders.

Our Proprietary Platform

Immunoglobulin G (IgG) and Immunoglobulin M (IgM) are classes of antibodies that are naturally produced by the human immune system and are distinguishable by their structural properties. IgM antibodies have 10 binding domains compared to 2 for IgG antibodies, which may result in greater total binding power to a target cell.

Development of IgM antibodies has been historically limited by difficulties encountered in the recombinant expression and manufacture of these antibodies. Through our focused efforts which began in 2010, we developed a broad range of skills, knowledge and trade secrets that allowed us to successfully express and manufacture a range of IgM antibodies. We created our IgM platform with the goal to expand upon the inherent qualities of IgM antibodies and to allow for the rapid development of engineered therapeutic antibodies.

Following the 2025 Restructuring, our only ongoing IgM-related efforts relate to the targets we are developing under the Sanofi Agreement (defined below), and we do not have any ongoing clinical trials. Unless the context otherwise requires, any references to or discussion of "product candidates" in this Annual Report on Form 10-K refer to the IgM antibodies we are developing under the Sanofi Agreement or any product candidates that we may in the future develop, if any. Further, unless the context otherwise requires, any references to or discussion of "clinical trials" or "clinical development" in this Annual Report on Form 10-K refer to any such clinical trials or clinical development that we may in the future conduct in connection with the Sanofi Agreement or may otherwise pursue in the future, if any.

Third-Party Agreements

We have entered into arrangements to in-license research and development technology rights with third parties. These arrangements may include non-refundable, upfront payments, payments for options to acquire additional rights, as well as contingent obligations for potential development, regulatory and commercial performance milestone payments, and royalty payments. Our obligation to make payments for contingent obligations is contingent upon the respective milestones being achieved as well as our continued involvement in the programs and/or the lack of any adverse events which could cause the discontinuance of the programs. The activities under these license agreements are performed with no guarantee of either technological or commercial success.

Sanofi Collaboration and License Agreement

In March 2022, we entered into a global collaboration and license agreement with Genzyme Corporation (Sanofi Agreement), a wholly owned subsidiary of Sanofi, which became effective in May 2022. Under the terms of the Sanofi Agreement, we agreed to generate, develop, manufacture and commercialize IgM antibodies directed to six primary targets, three of which were oncology targets and three of which were immunology targets.

In April 2024, Sanofi exercised its right to terminate the oncology collaboration targets effective June 2024. As a result of this termination, we have no further obligations to conduct research and development activities for such terminated targets and Sanofi

retains no substitution rights for such terminated targets, pursuant to the terms of the Sanofi Agreement, and the collaboration will now focus exclusively on the immunology collaboration targets (Collaboration Targets). The termination of the oncology targets did not affect any rights and obligations under the Sanofi Agreement with respect to the immunology Collaboration Targets.

Upfront Payment

Under the terms of the Sanofi Agreement, we received a $150.0 million upfront payment from Sanofi in May 2022.

Milestone Payments

We have the right to receive up to $1,065.0 million in aggregate development, regulatory and commercialization milestones for each immunology Collaboration Target.

Profit Share and Royalties

For licensed products directed to immunology Collaboration Targets, we will have the right to receive tiered royalties on global net sales of those licensed products that are in the high single-digit to low-teen percentages, subject to certain reductions and offsets.

Our right to receive royalties on net sales of licensed products will continue on a licensed product-by-licensed product and country-by-country basis until the latest to occur of: (i) the expiration of the last valid claim covering such licensed product, (ii) expiration of regulatory exclusivity for such licensed product, and (iii) a specified period of time after the first commercial sale of such licensed product, subject to certain exceptions.

Research, Development, and Commercialization

For each immunology Collaboration Target program, we will be responsible for conducting research and development activities through the completion of the first Phase 1 clinical trials for up to two candidates directed to each immunology Collaboration Target, after which Sanofi will be responsible for conducting all future development and commercialization activities related to each such immunology Collaboration Target. We and Sanofi will bear their own costs in conducting those activities.

For certain cases during a limited period of time, Sanofi will have a one-time right to substitute each of the initial immunology Collaboration Targets, and following any such substitution, the Sanofi Agreement will be automatically terminated with respect to such replaced initial immunology Collaboration Target.

Manufacturing

We will be responsible for manufacture of all preclinical materials for the research activities for each immunology Collaboration Target and clinical drug supply for each immunology Collaboration Target program through Phase 1, after which all manufacturing responsibilities will transfer to Sanofi.

Exclusivity

We will grant to Sanofi, on an immunology Collaboration Target-by-immunology Collaboration Target basis, an exclusive license under certain intellectual property rights controlled by us to, among other things, conduct certain confirmatory and other research activities regarding potential candidates directed to such target in accordance with an agreed upon research plan and to develop and commercialize such licensed products worldwide for all uses. For a specified period of time, on an immunology Collaboration Target-by-immunology Collaboration Target basis, neither we nor Sanofi will be permitted to develop, commercialize, or manufacture for clinical or commercial uses outside of the Sanofi Agreement, certain IgM antibodies that are directed to such immunology Collaboration Target and labeled, or under development to be labeled for, immunology, in each case, subject to certain exceptions. Further, during the term of the Sanofi Agreement, on an immunology Collaboration Target-by-immunology Collaboration Target basis, we will not be permitted to research, develop, commercialize, or manufacture outside of the Sanofi Agreement, target-binding molecules that are the same as, or a close homolog of, the target-binding sequences of licensed compounds directed to such immunology Collaboration Target.

Expiration and Termination

Unless sooner terminated by either party pursuant to its terms, the Sanofi Agreement will continue in effect on a licensed product-by-licensed product and country-by-country basis until the expiration of the applicable royalty term. Upon the expiration (but not termination) of the Sanofi Agreement, Sanofi's licenses to our intellectual property for such licensed product in such country will continue on a royalty-free and non-exclusive basis.

Each party will have the right to terminate the Sanofi Agreement in its entirety, or on a licensed product-by-licensed product or country-by-country basis, as applicable, for an uncured material breach of the Sanofi Agreement by the other party. Each party will have the right to terminate the Sanofi Agreement in its entirety, or on an immunology Collaboration Target-by-immunology Collaboration Target basis or licensed product-by-licensed product basis, as applicable, if such party's safety review committee recommends cessation of development or commercialization of applicable licensed products due to a material safety event. Sanofi will have the right to terminate the Sanofi Agreement in its entirety, on an immunology Collaboration Target construct-by-immunology Collaboration Target construct basis or country-by-country basis, as applicable, with or without cause, upon specified prior notice. Each party will have the right to terminate the Sanofi Agreement in its entirety for the other party's bankruptcy or other similar financial distress as well as a right to terminate in certain other circumstances.

Medivir Agreement

In January 2021, we entered into an exclusive license agreement with Medivir AB (Medivir) through which we received global, exclusive development and commercialization rights for birinapant, a clinical-stage Second Mitochondrial-derived Activator of Caspases (SMAC) mimetic. Under the terms of the agreement, we made an upfront payment of $1.0 million upon signing the agreement and made an additional $1.5 million payment in November 2021 due to our initiation of a Phase 1 clinical study of aplitabart in combination with birinapant. Under the terms of the agreement, should birinapant be successfully developed and approved, we would be obligated to make milestone payments up to a total of approximately $348.5 million, plus tiered royalties from the mid-single digits up to mid-teens on net sales. As part of the 2024 Restructuring, we decided not to proceed with the clinical development of aplitabart in combination with birinapant. On February 24, 2025, we notified Medivir that we were exercising our right to terminate the license agreement as of May 25, 2025.

Manufacturing and Supply

In 2021, we completed construction and began to operate a good manufacturing practice (cGMP) manufacturing facility for the manufacture of clinical trial drug materials; however, we continued to rely on third parties for the manufacture of some product candidates, and we expect to continue to do so. We have suspended our internal manufacturing operations. We expect to continue to rely on third parties to package, label, store and distribute any future investigational product candidates.

We have spent significant resources developing our manufacturing processes and know-how to produce sufficient yields and optimize functionality in conjunction with our contract manufacturing partners. Typically, we used Chinese hamster ovary (CHO) cells to produce IgM antibodies by transfecting those cells with plasmids containing genes encoding heavy chain (HC), light chain (LC) and J chain (JC) domains. The IgM pentamers, containing HC, LC and JC in an appropriate ratio (e.g., 10:10:1), were assembled within the CHO cells, and secreted into the cell supernatant, all of which were contained in a large single-use bioreactor. The product IgM was harvested and purified to homogeneity using methods and processes developed by us. Our processes provided for cost-effective purification and formulation stability in the manufacturing of IgM antibodies.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We face potential competition from many different sources, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities, academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for the research, development, manufacturing and commercialization of autoimmune therapies. Any product candidates that we successfully develop and commercialize will compete with new autoimmune therapies and other drug products that may become available in the future.

We compete in the segments of the pharmaceutical, biotechnology and other related markets that develop therapies for autoimmune disease. There are many other companies that have commercialized and/or are developing treatments for autoimmune diseases, including large pharmaceutical and biotechnology companies, such as AbbVie, AstraZeneca, Bristol-Myers Squibb, Eli Lilly, Johnson and Johnson, Novartis, Pfizer and Takeda.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved drugs than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and enrolling subjects for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

We could see a reduction or elimination of our commercial opportunity if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we or our collaborators may develop. Our competitors also may obtain FDA or foreign regulatory approval for their products more rapidly than we may obtain approval for product candidates, which could result in our competitors establishing a strong market position before we or our collaborators are able to enter the market. The key competitive factors affecting the success of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics, if required, the level of biosimilar or generic competition and the availability of reimbursement from government and other third-party payors.

Intellectual Property

We have sought patent protection in the United States and internationally for our platform technologies, research discoveries and proprietary molecules. For our proprietary molecules, we seek to pursue patent protection covering compositions of matter, methods of use including various treatment indications and methods of manufacture. Throughout the innovation process, and continuing into the development phase, we also plan to seek to identify additional means of obtaining patent protection that would potentially enhance our commercial success, including obtaining patent protection for new formulations, methods of use, such as additional medical indications for our proprietary molecules, treatment methods for specific patient populations using our proprietary molecules and methods and tests to identify those patient populations, new dosing regimens, and the manufacture of proprietary molecules. We also seek to obtain patent protection for refinements and enhancements to our platform technologies. Our policy is to pursue, maintain and defend patent rights in strategic areas and to protect the technologies, inventions, and improvements that are commercially important to the development of our business. We may also rely on trade secrets that may be important to the development of our business, and we seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

To date, we have spent considerable effort securing intellectual property rights, including rights related to our platform and manufacturing technologies and proprietary molecules. Material aspects of our patent portfolios covering our platform technologies, proprietary molecules, and related discovery programs, are summarized below.

Platform and Manufacturing Technologies

As of December 31, 2024, our patent portfolio related to our platform and manufacturing technologies includes 14 patent families (13 published, 13 wholly owned, one exclusively licensed) and includes issued U.S. and global patents and applications directed to our modified J chain technology. The platform and manufacturing portfolio includes 52 granted patents, 2 allowed applications, and 78 pending applications in 16 countries or regions, one pending PCT application, and one pending provisional patent application. These patent families are projected to expire between 2034 and 2045, absent any patent term adjustments or extensions. Summaries of selected published patent families are provided below.

The “Modified J Chain” family includes disclosure and claims related to IgM, IgA, and hybrid multimeric antibodies that include a J chain, where the J chain has been modified to include a binding moiety, e.g., an antibody or antibody fragment, or any other protein or non-protein moiety that can bind to a cognate binding partner (including antibody drug conjugates). The application family also includes disclosure and claims related to methods of making and using multimeric antibody molecules comprising a modified J chain, e.g., bispecific IgM antibodies. This patent family has a projected expiration date of April 2, 2035, absent any patent term adjustments or extensions. The Modified J Chain patent family includes granted patents in the United States (four patents), Australia (two patents), Brazil, China (two patents), Europe (two patents, both validated in Austria, Belgium, Switzerland, Germany, Denmark, Spain, Finland, France, Hong Kong, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Sweden, Slovenia, and the United Kingdom, one additionally validated in the Czech Republic and Turkey), Israel (two patents), India, Japan (two patents), Mexico (two patents), New Zealand, Russia, Singapore, South Africa, and South Korea. As of December 31, 2024, the patent family also includes one allowed application in Canada as well as pending patent applications in the United States, Australia, Europe, Israel, Russia, South Africa, and South Korea. The granted U.S., European, and Chinese claims are directed to IgM antibodies (in the first patents in the United States and Europe); IgM, IgA and hybrid antibodies (in Brazil, India, Russia, Singapore, and South Korea; in the first patent in Australia; in the second patents in United States and Europe; and in the first and second patents in Israel, Japan, and Mexico); and polymeric antibodies (in South Africa, in the third and fourth United States patents, and in the second patent in Australia) comprising a modified J chain with a binding moiety fused or chemically conjugated to selected regions of the J chain. Related claims are being prosecuted in the pending applications.

A later-filed patent family is related to our “Modified J Chain” family. This patent family has a projected expiration date of September 30, 2036, absent any patent term adjustments or extensions. Patents and applications in this family includes disclosure and claims related to multimeric antibodies (e.g., IgM, IgA, or hybrid multimeric antibodies) that include a modified J chain, where the modified J chain includes a moiety that affects adsorption, distribution, metabolism, and/or excretion (ADME) of the multimeric antibody. Exemplary moiety types include, but are not limited to, proteins that increase antibody serum half-life, proteins that affect receptor-mediated transcytosis, and proteins that increase retention of the multimeric antibody in an extravascular space. Patents are granted in the United States (two patents), Japan (two patents), Australia (two patents), Canada, and Europe (validated in Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Spain, Finland, France, Greece, Hong Kong, Hungary, Ireland, Iceland, Italy,

Luxembourg, the Netherlands, Norway, Poland, Portugal, Sweden, Slovenia, Turkey, and the United Kingdom). Patent applications in this family are pending in the United States, China, and Europe.

Our platform and manufacturing technology portfolio also includes a patent family with disclosure and claims related to J chain and IgM Fc mutations that inhibit binding of IgM to certain multimeric Ig receptors including the Fcαμ receptor, the Fcμ receptor, and the polymeric Ig receptor. The claims are related to IgM and IgM-derived antibodies that include these mutations and have substantially increased serum half-lives relative to wild type IgM antibodies. The patent applications in this family have a projected expiration date of March 1, 2039, absent any patent term adjustments or extensions. This family includes granted patents in the United States, Japan, South Korea and Mexico. The family includes pending applications in the United States, Australia, Brazil, Canada, China, Europe, Israel, India, Japan, New Zealand, and Singapore.

Our platform and manufacturing technology portfolio also includes a patent family that includes disclosure and claims related to IgM antibody Fc modifications that affect the ability of the IgM antibody to trigger complement-dependent cytotoxicity (CDC). Patent applications in this family disclose and claim single and combined human IgM Fc amino acid substitutions that reduce and/or completely inhibit IgM's typical CDC activity. Applications in this patent family have a projected expiration date of April 6, 2038, absent any patent term adjustments or extensions. This family includes granted patents in the United States, China, South Korea, Mexico and Singapore. Patent applications in this family are pending in the United States, Canada, Europe, Israel, India, Japan and New Zealand; one patent application is allowed in Australia.

Our platform and manufacturing technology portfolio also includes a patent family that discloses and claims highly sialylated multimeric binding molecules and methods of making the same. Applications in this family have a projected expiration date of January 5, 2041, absent any patent term adjustments or extensions. Patent applications in this family are pending in the United States, Australia, Brazil, Canada, China, Europe, Israel, India, Japan, South Korea, Mexico, Malaysia, New Zealand, Singapore and South Africa.

Our platform and manufacturing technology portfolio also includes a wholly owned pending PCT application describing and claiming multimeric T cell engaging binding molecules comprising bivalent binding units that bind to a target antigen and a modified J chain or a functional fragment or variant thereof that includes an anti-CD3 antigen-binding domain and a heterologous polypeptide comprising a polypeptide agonist of a T cell costimulatory molecule.

Proprietary Molecules and Discovery Pipeline

Our proprietary molecule and discovery pipeline patent portfolio includes 24 patent families (23 published, 23 families are wholly owned and one family is exclusively licensed, with one family in common with the platform portfolio) including claims directed to our proprietary multimeric binding molecules.

As of December 31, 2024, our proprietary molecule and discovery pipeline portfolio includes 81 granted patents (52 wholly owned and 29 exclusively licensed), two allowed (both wholly owned), 124 applications in prosecution (123 wholly owned and one exclusively licensed), in 17 countries or regions, and four wholly-owned pending PCT applications. These patent families are projected to expire between 2025 and 2044, absent any patent term adjustments or extensions.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our future product candidates and the methods used to develop and manufacture them, as well as successfully defending these patents against any third-party challenges. Our ability to stop third parties from making, using, selling, offering to sell, or importing our future product candidates depends on the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our future product candidates, discovery programs and processes.

The term of individual patents depends largely upon the statutory legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the United States, the term of a patent that covers an FDA-approved product may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Amendments permit a patent term extension of up to five years beyond the expiration of a patent covering a product, insofar as the patent covers the FDA-approved product. The length of the patent term extension is related to the length of time the drug is under regulatory review. 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 applicable to an approved product may be extended and only those claims covering the approved product, a method for using it, or a method for manufacturing it can be extended. Similar provisions are available in foreign jurisdictions to extend the term of a patent that covers an approved product. In the future, if and when our future product candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those products. While we plan to seek patent

term extensions on any of our issued patents in any jurisdiction where these are available, there is no guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted and, if granted, the length of such extensions.

In addition to patent protection, we also rely on trademark registration, trade secrets, know how, other proprietary information and continuing technological innovation to develop and maintain our competitive position. We seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. We may therefore not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specified circumstances. Our agreements with employees also provide that all inventions conceived by the employee in the course of employment with us or from the employee's use of our confidential information are our exclusive property. However, such confidentiality agreements and invention assignment agreements can be breached and we may not have adequate remedies for any such breach.

The patent positions of biotechnology companies like ours are generally uncertain and involve complex legal, scientific, and factual questions. Our future commercial success will also depend in part on not infringing the proprietary rights of third parties. It is uncertain whether the issuance of any third-party patent would require us to alter our development, commercial strategies, proprietary molecules, or processes, or to obtain licenses or cease certain activities. Our breach of any license agreements or our failure to obtain a license to proprietary rights required to develop or commercialize our future products 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 derivation proceedings in the USPTO or similar proceedings in foreign jurisdictions, to determine priority of invention.

For more information on these risks and other comprehensive risks related to our intellectual property, see the section titled "Risk Factors—Risks Related to Our Intellectual Property."

Government Regulation

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, commercial approval, and post-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.

U.S. Biologics Regulation

The process required by the FDA before biologic product candidates 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 current Good Laboratory Practices (GLP) regulation;
- submission to the FDA of an IND, which must become effective before clinical trials may begin and must be updated annually or when significant changes are made;
- approval by an independent 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 purpose;
- preparation of and submission to the FDA of a Biologics License Application (BLA) after completion of all pivotal clinical trials;
- satisfactory completion of an FDA Advisory Committee review, if applicable;

- a determination by the FDA within 60 days of its receipt of a BLA to file the application for review;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the proposed product is produced to assess compliance with cGMPs and to assure that the facilities, methods and controls are adequate to preserve the biological product's continued safety, purity and potency, and of selected clinical investigation sites to assess compliance with good clinical practices (GCPs); and
- FDA review and approval of a BLA to permit commercial marketing of the product for particular indications for use in the United States.

Preclinical and Clinical Development

Prior to beginning the first clinical trial with a product candidate, we must submit an IND to the FDA. An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol or protocols for preclinical studies and 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 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 preclinical studies and clinical trials and clinical study results to public registries.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap.

- *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, to identify possible 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 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, or for biologics, the safety, purity and potency. 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

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, nonclinical 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 pertinent 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. The submission of a BLA requires payment of a substantial application user fee to the FDA, unless a waiver or exemption applies.

Once a BLA has been submitted, the FDA's goal is to review standard applications within ten months after it accepts the application for filing, 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 is often significantly 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 convene an advisory committee to provide clinical insight on application review questions. 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 requirements 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 GCPs. 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. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A Complete Response letter 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 Complete Response letter without first conducting required inspections, testing submitted product lots and/or reviewing proposed labeling. In issuing the Complete Response letter, 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 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. The fast track program is intended to expedite or facilitate the process for reviewing new products that meet certain criteria. Specifically, new products are eligible for fast track designation if they are intended to treat patients with 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 and the specific indication for which it is being studied. The sponsor of a fast track product has opportunities for frequent interactions with the review team during product development and, once a BLA is submitted, the product may be eligible for priority review. A fast track product 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 intended to treat patients with a serious or life-threatening disease or condition may also be eligible for breakthrough therapy designation to expedite its development and review. A product can receive breakthrough therapy designation if preliminary clinical evidence indicates that the product, 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, including involvement of senior managers.

Any marketing application for a biologic submitted to the FDA for approval, including a product 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 product is eligible for priority review if it has the potential to provide a significant improvement in the treatment, diagnosis or prevention of a serious 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, products studied for their safety and effectiveness in treating patients with serious or life-threatening diseases or conditions may receive accelerated approval upon a determination that the product 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 studies to verify and describe the anticipated effect on irreversible morbidity or mortality or other 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. The Food and Drug Omnibus Reform Act reformed the accelerated approval pathway, such as requiring the FDA to specify conditions for post-approval study requirements and setting forth procedures for the FDA to withdraw a product on an expedited basis for non-compliance with post-approval requirements.

Fast track designation, breakthrough therapy designation, priority review and regenerative medicine advanced therapy (RMAT) designation do not change the standards for approval but may expedite the development or approval process. Even if a product 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.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat patients with a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusive approval (or exclusivity), which means that the FDA may not approve any other applications, including a full BLA, to market the same biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or if the FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. Orphan drug exclusivity does not prevent the FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

In *Catalyst Pharms., Inc. v. Becerra*, 14 F.4th 1299 (11th Cir. 2021), the court disagreed with the FDA's longstanding position that the orphan drug exclusivity only applies to the approved use or indication within an eligible disease. In particular, the circuit court held that the orphan-drug exclusivity for Catalyst's drug blocked FDA's approval of another drug for all uses or indications within the same orphan-designated disease, or Lambert-Eaton myasthenic syndrome (LEMS), even though Catalyst's drug was approved at that time only for use in the treatment of LEMS in adults. Accordingly, the court ordered the FDA to set aside the approval of a drug indicated for LEMS in children. This decision created uncertainty in the application of the orphan drug exclusivity. On January 24, 2023, the FDA published a notice in the Federal Register to clarify that while the agency complies with the court's order in *Catalyst*, FDA intends to continue to apply its longstanding interpretation of the regulations to matters outside of the scope of the *Catalyst* order – that is, the agency will continue tying the scope of orphan-drug exclusivity to the uses or indications for which a drug is approved, which permits other sponsors to obtain approval of a drug for new uses or indications within the same orphan designated disease or condition that have not yet been approved. It is unclear how future litigation, legislation, agency decisions, and administrative actions will impact the scope of the orphan drug exclusivity.

In June 2024, the U.S. Supreme Court overruled the Chevron doctrine, which gives deference to regulatory agencies' statutory interpretations in litigation against federal government agencies, such as the FDA, where the law is ambiguous. This landmark Supreme Court decision may invite various stakeholders to bring lawsuits against the FDA to challenge longstanding decisions and policies, including FDA's statutory interpretations of market exclusivities and the "substantial evidence" requirements for drug approvals, which could lead to uncertainties in the industry. Further, changes in the leadership of the FDA and other federal agencies under the current administration may lead to new policies and changes in the regulations that may impact our clinical development and timelines.

Post-approval Requirements

Any products manufactured or distributed by us pursuant to FDA approvals 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 user fee requirements, under which the FDA assesses an annual program fee for each product identified in an approved BLA. 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 cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. 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 cGMPs and impose reporting requirements upon us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMPs 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, or 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 studies 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 a product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical studies;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of existing product approvals;
- product seizure or detention, or refusal of the FDA 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 by us 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 Patient Protection and Affordable Care Act (ACA) includes a subtitle called the BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-approved reference biological product. To date, a number of biosimilars have been licensed under the BPCIA, and numerous biosimilars have been approved in Europe. 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. 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 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 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.

The BPCIA is complex and continues to be interpreted and implemented by the FDA. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation, and impact of the BPCIA are subject to significant uncertainty.

Other Healthcare Laws and Compliance Requirements

Pharmaceutical companies are 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. Such laws include, without limitation: the federal Anti-Kickback Statute, the federal False Claims Act, the Health Insurance Portability and Accountability Act (HIPAA) and similar foreign, federal and state fraud and abuse, transparency and privacy laws.

The federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration (including any kickback, bribe or rebate), directly or indirectly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, order or recommendation of an item or service for which payment may be made, in whole or in part, under any federal and state healthcare programs. The term remuneration has been interpreted broadly to include anything of value, including stock options. The federal Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers and formulary managers, among others, on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but they are drawn narrowly and practices that involve remuneration, such as consulting agreements, that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal Anti-Kickback Statute. Instead, the legality of the arrangement will be

evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Our practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor. 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. In addition, 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 federal False Claims Act.

Civil and criminal false claims laws, including the federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions, and civil monetary penalty laws, which can be enforced through civil whistleblower or qui tam actions, prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment to the federal government, including federal healthcare programs, that are false or fraudulent. For example, the federal False Claims Act prohibits any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. A claim includes "any request or demand" for money or property presented to the U.S. government. Several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product.

HIPAA created additional federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program, including private third-party payors, and making false statements relating to healthcare matters. In addition, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH), and their implementing regulations, impose certain requirements on HIPAA covered entities, which include certain healthcare providers, healthcare clearing houses and health plans, and individuals and entities that provide services on their behalf that involves individually identifiable health information, known as business associates, relating to the privacy, security and transmission of individually identifiable health information.

The U.S. federal Physician Payments Sunshine Act requires certain manufacturers of covered drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to annually report to the Center for Medicare & Medicaid Services (CMS) information related to payments and other transfers of value made to cover recipients, including physicians (defined to include doctors of medicine and osteopathy, dentists, podiatrists, optometrists and licensed chiropractors), certain non-physician healthcare professionals (such as physician assistants and nurse practitioners, among others), and teaching hospitals, as well as information regarding ownership and investment interests held by physicians, as defined by law, and their immediate family members.

We are also subject to additional similar U.S. state and foreign law equivalents of each of the above federal laws, which, in some cases, differ from each other in significant ways, and may not have the same effect, thus complicating compliance efforts. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply, we may be subject to penalties, including, without limitation, significant civil, criminal and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, such as Medicare and Medicaid or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. Sales of any product, if approved, depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state, and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement, if any, for such product by third-party payors. Decisions regarding whether to cover any of our product candidates, if approved, the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. 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 product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization.

In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement and requirements for substitution of generic products.

Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost effectiveness of pharmaceutical or biological products, medical devices and medical services, in addition to questioning safety and efficacy. 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. Decreases in third-party reimbursement for any product or a decision by a third-party not to cover a product could reduce physician usage and patient demand for the product. No regulatory authority has granted approval for a personalized cancer immunotherapy based on a vaccine approach, and there is no model for reimbursement of this type of product.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of reform proposals to change the healthcare system. There is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by federal and state legislative initiatives, including those designed to limit the pricing, coverage, and reimbursement of pharmaceutical and biopharmaceutical products, especially under government-funded health care programs, and increased governmental control of drug pricing.

The ACA, which was enacted in March 2010, substantially changed the way healthcare is financed by both governmental and private insurers in the United States, and significantly affected the pharmaceutical industry. The ACA contains a number of provisions of particular import to the pharmaceutical and biotechnology industries, including, but not limited to, those governing enrollment in federal healthcare programs, 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, a new licensure framework for follow on biologic products, and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA. For example, in June 2021 the U.S. Supreme Court held that Texas and other challengers had no legal standing to challenge the ACA, dismissing the case on procedural grounds without specifically ruling on the constitutionality of the ACA. Thus, the ACA will remain in effect in its current form. It is possible that the ACA will be subject to judicial or Congressional challenges in the future. It is unclear how any such challenges and healthcare measures promulgated by the Biden administration will impact the ACA, our business, financial condition and results of operations.

Other legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2032, unless additional action is taken by Congress.

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 drug products. At the federal level, for example, under the American Rescue Plan Act of 2021, effective January 1, 2024, the statutory cap on Medicaid Drug Rebate Program rebates that manufacturers pay to state Medicaid programs will be eliminated. Elimination of this cap may require pharmaceutical manufacturers to pay more in rebates than it receives on the sale of products, which could have a material impact on our business. In August 2022, Congress passed the Inflation Reduction Act of 2022 (IRA), which includes prescription drug provisions that have significant implications for the pharmaceutical industry and Medicare beneficiaries, including allowing the federal government to negotiate a maximum fair price for certain high-priced single source Medicare drugs, imposing penalties and excise tax for manufacturers that fail to comply with the drug price negotiation requirements, requiring inflation rebates for all Medicare Part B and Part D drugs, with limited exceptions, if their drug prices increase faster than inflation, and redesigning Medicare Part D to reduce out-of-pocket prescription drug costs for beneficiaries, among other changes. Under the Medicare price negotiation provisions, only high-expenditure single-source drugs that have been approved for at least 7 years (11 years for single-source biologics) qualify for negotiation, with the negotiated price taking effect two years after the selection year. For 2026, the first year in which negotiated prices become effective, CMS selected 10 high-cost Medicare Part D drugs in 2023, negotiations began in 2024, and the negotiated maximum fair price for each drug has been announced. CMS has selected 15 additional Medicare Part D drugs for negotiated maximum fair pricing in 2027. For 2028, up to an additional 15 drugs, which may be covered under either Medicare Part B or Part D, will be selected, and for 2029 and subsequent years, up to 20 additional Part B or Part D drugs will be selected. Various industry stakeholders, including certain pharmaceutical companies and the Pharmaceutical Research and Manufacturers of America, have initiated lawsuits against the federal government asserting that the price negotiation provisions of IRA are unconstitutional. The impact of these judicial challenges, legislative, executive, and administrative actions and any future healthcare measures and agency rules implemented by the current administration on us and the pharmaceutical industry as a whole is unclear. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates if approved. At the state level, legislatures have increasingly passed legislation and

implemented 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. For example, a number of states are considering or have recently enacted state drug price transparency and reporting laws that could substantially increase our compliance burdens and expose us to greater liability under such state laws once we begin commercialization after obtaining regulatory approval for any of our products.

Additionally, the Right to Try Act, which was enacted on May 30, 2018, provides a federal framework for certain patients with life-threatening diseases to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a drug manufacturer to make its drug products available to eligible patients as a result of the Right to Try Act.

Employees and Human Capital

As of December 31, 2024, we had 149 full-time employees, 99 of whom were engaged in research and development activities. In September 2024, we announced a reduction in our workforce driven by the 2024 Restructuring. In January 2025, as part of the 2025 Restructuring, we announced a further reduction in our workforce by approximately 73%. None of our employees are represented by labor unions or covered by collective bargaining agreements. We have not experienced any work stoppages and consider our relationship with our employees to be good.

Corporate Information

IGM Biosciences, Inc. was incorporated in Delaware in 1993 under the name Palingen, Inc. In December 2017, we established a Danish holding company (IGM Biosciences A/S (Holdco)); in April 2019, we dissolved Holdco.

Our principal executive offices are located at 325 E. Middlefield Road, Mountain View, California 94043, and our telephone number is (650) 965-7873. Our website address is www.igmbio.com.

IGM Biosciences, the IGM logo and our other registered or common law trademarks, trade names or service marks appearing in this Annual Report on Form 10-K are owned by us. This Annual Report on Form 10-K contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this Annual Report on Form 10-K, including logos, artwork and other visual displays, generally appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Available Information

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy and information statements and amendments to reports filed pursuant to Sections 13(a), and 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) are filed with the U.S. Securities and Exchange Commission (SEC). We are subject to the informational requirements of the Exchange Act and file or furnish reports, proxy statements and other information with the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov. Such documents and other information filed by us with the SEC are available free of charge on the Investor section of our website (investor.igmbio.com) when such reports are available on the SEC's website.

Investors and others should note that we may announce material information to the public through filings with the SEC, our website (www.igmbio.com), press releases, public conference calls, and public webcasts. We encourage our investors and others to review the information disclosed through such channels as such information could be deemed to be material information. Please note that this list may be updated from time to time.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Annual Report on Form 10-K, including our financial statements and the related notes and the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations, growth prospects and stock price. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. Our Risk Factors are not guarantees that no such conditions exist as of the date of this report, and should not be interpreted as an affirmative statement that such risks or conditions have not materialized, in whole or in part.

Unless the context otherwise requires, any references to or discussion of "product candidates" in these Risk Factors refer to the IgM antibodies we are developing under the Sanofi Agreement or any product candidates that we may otherwise pursue in the future, if any. Further, unless the context otherwise requires, any references to or discussion of "clinical trials" or "clinical development" in these Risk Factors refer to any such clinical trials or clinical development that we may in the future conduct in connection with the Sanofi Agreement or may otherwise pursue in the future, if any.

Risk Factor Summary

Our business operations are subject to numerous risks and uncertainties, including those outside of our control, that could cause our actual results to be harmed, including risks regarding the following:

- Our only ongoing IgM-related efforts relate to the targets we are developing under the Sanofi Agreement, and we have not completed the development of any product candidates. If we are unable to discover and develop product candidates, advance product candidates through clinical development, obtain regulatory approval and commercialize one or more product candidates, our business will be materially adversely affected and we may never generate any product revenue.
- Our activities to evaluate and pursue potential strategic alternatives may not result in any definitive transaction or enhance stockholder value.
- If we fail to achieve the expected financial and operational benefits of our recent cash preservation activities, our business and financial results may be harmed.
- The use of engineered IgM antibodies is a novel and unproven therapeutic approach, and our discovery and research programs may never lead to a marketable product.
- Following the 2025 Restructuring, we may not develop product candidates through the IgM platform outside of the Sanofi Agreement. If, in the future, we do pursue product candidates through the IgM platform, we may not be successful in our efforts to use and expand our IgM platform to build a pipeline of product candidates.
- Product candidates we may develop may have undesirable side effects that may delay or prevent marketing approval or, if approval is received, require them to be taken off the market, require them to include new safety warnings, contraindications or precautions, or otherwise limit their sales. No regulatory agency has made a determination that any of our product candidates are safe or effective for use by the general public for any indication.
- We face significant competition from entities that have developed or may develop product candidates for the treatment of diseases that we are initially targeting, including companies developing novel treatments and technology platforms. If our competitors develop and market products that are more effective, safer or less expensive than our product candidates, our commercial opportunities will be negatively impacted.
- We and our third-party manufacturers have encountered and may continue to encounter difficulties in the production of our product candidates, and supply chain shortages have limited and may continue to limit our access to raw materials and other supplies. If we continue to encounter any such difficulties, our ability to manufacture drug substances or supply our product candidates for preclinical studies or clinical trials or, if approved, for commercial sale, could be further delayed or halted entirely.
- Clinical trials are expensive, time consuming and difficult to design and implement and may fail to demonstrate adequate safety and efficacy of our product candidates. Furthermore, the results of previous preclinical studies and clinical trials may not be predictive of future results, and the results of any clinical trials may not satisfy the requirements of the FDA or comparable foreign regulatory authorities or provide the basis for regulatory approval.
- If clinical trials for any product candidates that we may develop are prolonged, delayed or stopped, we may be unable to seek or obtain regulatory approval and commercialize our product candidates on a timely basis, or at all, which would require us to incur additional costs and delay our receipt of any product revenue.
- If we experience delays or difficulties in the enrollment of patients in clinical trials, including because of competition for patients, we will be unable to complete such trials on a timely basis, if at all.

- We face risks related to health epidemics and other outbreaks, such as COVID-19, which could significantly disrupt our business operations or otherwise result in material adverse impact to us.
- We have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.
- Drug development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable. Our ability to generate revenue and achieve profitability depends significantly on our ability to achieve a number of objectives.
- We will require substantial additional funding to finance our operations, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back or cease our product development programs or operations.
- Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.
- Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or protected health information or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.
- Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Risks Related to Our Business and the Development and Commercialization of Our Product Candidates

Our only ongoing IgM-related efforts relate to the targets we are developing under the Sanofi Agreement, and we have not completed the development of any product candidates. If we are unable to discover and develop product candidates, advance product candidates through clinical development, obtain regulatory approval and commercialize one or more of our product candidates, our business will be materially adversely affected and we may never generate any product revenue.

Our only ongoing IgM-related efforts relate to the targets we are developing under the Sanofi Agreement. We have not completed the development of any product candidates. As a result, we are not currently permitted to market or sell any product candidates in any country, and we may never be able to do so in the future. Product candidates will require clinical development, evaluation of preclinical, clinical and manufacturing activities, marketing approval from government regulators, substantial investment and significant marketing efforts before we generate any revenues from product sales, if ever. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals. Our ability to generate product revenue and achieve and sustain profitability depends on, among other things, discovering and developing product candidates and obtaining regulatory approvals for such product candidates. Obtaining regulatory approval of product candidates will depend on many factors, including, but not limited to, the following:

- completing process development, manufacturing and formulation activities;
- initiating, enrolling patients in and completing clinical trials of product candidates on a timely basis;
- developing and maintaining adequate manufacturing capabilities either by ourselves or in connection with third-party manufacturers; and
- demonstrating with substantial evidence the efficacy, safety and tolerability of product candidates to the satisfaction of the FDA or any comparable foreign regulatory authority for marketing approval.

Many of these factors are wholly or partially beyond our control, including clinical advancement, the regulatory submission process and changes in the competitive landscape. If we do not achieve one or more of these factors in a timely manner, we could experience significant delays or an inability to develop product candidates at all, and our business will be materially adversely affected.

Our activities to evaluate and pursue potential strategic alternatives may not result in any definitive transaction or enhance stockholder value.

Following the announcement of the 2025 Restructuring, we have begun evaluating and exploring a variety of internal and external strategic alternatives focused on maximizing stockholder value, including, but not limited to, our potential internal research and development opportunities, a merger, sale, other business combination, a strategic partnership with one or more parties, or the licensing, sale or divestiture of our assets. Our ability to successfully execute on a strategic alternative is dependent on a number of factors and we may not be able to execute upon a transaction or other strategic alternative upon favorable terms within an advantageous timeframe and recognize significant value for these assets, if at all. Additionally, the negotiation and consummation of a transaction or other strategic alternative may be costly and time-consuming. Any executed strategic alternative may not result in anticipated savings or other economic benefits, could result in total costs and expenses that are greater than expected, could make it

more difficult to attract and retain qualified personnel and may disrupt our operations, each of which could have a material adverse effect on our business.

If we fail to achieve the expected financial and operational benefits of our recent cash preservation activities, our business and financial results may be harmed.

In connection with the 2024 Restructuring and 2025 Restructuring, we announced reductions in workforce in September 2024 and January 2025. The estimates of the costs we expect to incur, and the successful implementation of the restructuring activities pursuant to the cash preservation activities, are subject to a number of assumptions, risks and uncertainties, and actual results may differ from the above-described estimates. We may also incur additional costs not currently contemplated due to events that may occur as a result of, or that are associated with, the cash preservation activities. Restructuring activities may also result in a loss of continuity, accumulated knowledge and inefficiency during transitional periods and thereafter. In addition, restructurings can require a significant amount of time and focus from management and other employees, which may divert attention from our core business activities.

The use of engineered IgM antibodies is a novel and unproven therapeutic approach and our discovery and research programs may never lead to a marketable product.

Product candidates based on engineered IgM antibody approaches differ from current antibody therapies and are unproven. Our IgM antibodies ultimately may not be as safe or effective as IgG antibodies that have been approved or may in the future be approved by the FDA. Further, we are not aware of any therapeutic IgM antibodies that have been approved by the FDA. The scientific evidence to support the feasibility of developing product candidates is both preliminary and limited. We may ultimately discover that any product candidates we may develop do not possess some of the properties that are necessary for therapeutic efficacy, and we may also discover that they do not possess those characteristics that we believe may be helpful for therapeutic effectiveness, including stronger binding that increases efficacy. Our IgM antibodies may also have significant undesirable characteristics, such as immunogenicity, which would limit their ability to be developed as effective and safe therapeutics. In addition, we may discover that our IgM antibodies are not as safe as IgG antibodies.

We may not succeed in demonstrating safety and efficacy of product candidates in clinical trials, notwithstanding results in preclinical studies. For example, in December 2023 we announced the deprioritization of all hematologic oncology clinical development and the clinical development of our targeted cytokine product candidate. Further, in September 2024, we committed to the 2024 Restructuring, and in 2025, we committed to the 2025 Restructuring, pursuant to which we suspended clinical development activities for aplitabart, imvotamab and IGM-2644, respectively. As a result, we may never succeed in developing a marketable product. We may discover that the half-life, tissue distribution or other pharmacodynamic or pharmacokinetic characteristics of our IgM antibodies render them unsuitable for the therapeutic applications we have chosen or otherwise non-competitive with IgG antibodies. We may also experience manufacturing, formulation or stability problems with one or more of our IgM antibodies which may render them unsuitable for use as therapeutic drug products.

The FDA has limited experience with IgM antibody-based therapeutics, which may increase the complexity, uncertainty and length of the regulatory approval process for our product candidates. For example, the FDA may require us to provide additional data to support our regulatory applications. We may never receive approval to market and commercialize any product candidate. Even if we obtain regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We may be subject to post-marketing testing requirements to maintain regulatory approval. In addition, upon obtaining any marketing approvals, we may have difficulty in establishing the necessary sales and marketing capabilities to gain market acceptance.

Moreover, advancing our product candidates and our discovery programs as novel products creates other significant challenges for us, including educating medical personnel regarding a novel class of engineered antibody therapeutics and their potential efficacy and safety benefits, as well as the challenges of incorporating our product candidates, if approved, into treatment regimens.

If any of our product candidates prove to be ineffective, unsafe or commercially unviable, our entire pipeline could have little, if any, value, and it may prove to be difficult or impossible to finance the further development of such pipeline. Any of these events would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Following the 2025 Restructuring, we may decide not to develop product candidates through the IgM platform outside of the Sanofi Agreement. If, in the future, we do pursue such product candidates, we may not be successful in our efforts.

Historically, a key element of our strategy has been to leverage our IgM platform to develop a pipeline of antibody product candidates. In January 2025, we announced the 2025 Restructuring and that we are evaluating internal options as well as potential strategic

alternatives with the goal of maximizing value for our stockholders. Following the 2025 Restructuring, we may decide not to develop product candidates through the IgM platform outside of the Sanofi Agreement.

If, in the future, we decide to pursue such product candidates, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval, be competitive with alternatives, or otherwise achieve market acceptance. If we do not successfully develop and begin to commercialize product candidates, we will not be able to generate any product revenue, which would adversely affect business.

In the future we may seek approval from the FDA or comparable foreign regulatory authorities through the use of expedited approval pathways, such as Fast Track designation and Breakthrough Therapy designation, orphan drug designation, or accelerated approval. Even if we receive accelerated approval from the FDA or comparable regulatory authorities, if our confirmatory clinical trials do not verify clinical benefit, or if we do not comply with rigorous post-marketing requirements, the FDA or such other regulatory authorities may seek to withdraw accelerated approval.

Where possible, we may, in the future, pursue accelerated development strategies in areas of high unmet need. We may seek an accelerated approval pathway for one or more of our product candidates from the FDA or comparable foreign regulatory authorities. Under the accelerated approval provisions in the Federal Food, Drug, and Cosmetic Act, and the FDA's implementing regulations, the FDA may grant accelerated approval to a product candidate designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the product candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory clinical trials to verify and describe the drug's clinical benefit. If such post-approval clinical trials fail to confirm the drug's clinical benefit, the FDA may withdraw its approval of the drug. Further, in December 2022, the Consolidated Appropriations Act, 2023, including the Food and Drug Omnibus Reform Act (FDORA), was signed into law. FDORA made several changes to the FDA's authorities and its regulatory framework, including, among other changes, reforms to the accelerated approval pathway, such as requiring the FDA to specify conditions for post-approval study requirements and setting forth procedures for the FDA to withdraw a product on an expedited basis for non-compliance with post-approval requirements. To the extent the FDA requires us to amend the design of any clinical trials or requires additional trials to meet changes in the data requirements for approval, our clinical timelines and approval will be delayed, which can have an adverse effect on our business and operations.

Prior to seeking accelerated approval, we may seek feedback from the FDA or comparable foreign regulatory authorities and will otherwise evaluate our ability to seek and receive such accelerated approval. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit a Biologics License Application (BLA) for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that after subsequent feedback from the FDA, EMA or comparable foreign regulatory authorities, we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or under another expedited regulatory designation (e.g., Fast Track designation, Breakthrough Therapy designation or orphan drug designation), there can be no assurance that such submission or application will be accepted or that any expedited development, review or approval will be granted on a timely basis, or at all. The FDA, EMA or other comparable foreign regulatory authorities could also require us to conduct further clinical trials prior to considering our application or granting approval of any type. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidate would result in a longer time period to commercialization of such product candidate, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

Fast Track designation is designed to facilitate the development and expedite the review of therapies for serious conditions and fill an unmet medical need. Programs with Fast Track designation may benefit from early and frequent communications with the FDA, potential priority review and the ability to submit a rolling application for regulatory review. Fast Track designation applies to both the product candidate and the specific indication for which it is being studied. If any of our product candidates receive Fast Track designation but do not continue to meet the criteria for Fast Track designation, or if any clinical trials are delayed, suspended or terminated, or put on clinical hold due to unexpected adverse events or issues with clinical supply, we will not receive the benefits

associated with the Fast Track program. Furthermore, Fast Track designation does not change the standards for approval. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

Product candidates we may develop may have undesirable side effects that may delay or prevent marketing approval or, if approval is received, require them to be taken off the market, require them to include new safety warnings, contraindications or precautions, or otherwise limit their sales. No regulatory agency has made a determination that any of our product candidates are safe or effective for use by the general public for any indication.

Unforeseen side effects from our product candidates could arise at any time during clinical development or, if approved by regulatory authorities, after the approved product has been marketed.

In our preclinical studies, we may observe undesirable characteristics of our product candidates. This may prevent us from advancing them into clinical trials, delay these trials or limit the extent of these trials. Despite our preclinical data, toxicity observations in clinical testing, if they occur, may limit our ability to develop our product candidates or may constitute a dose limiting toxicity.

The results of future clinical trials may also show that our product candidates and/or our discovery programs may cause undesirable or unacceptable side effects, which could interrupt, delay or halt clinical trials, and result in delay of, or failure to obtain, marketing approval from the FDA or comparable foreign regulatory authorities, or result in marketing approval from the FDA or comparable foreign regulatory authorities with restrictive label warnings or for limited patient populations, or result in potential product liability claims. No regulatory agency has made any determination that any of our product candidates or discovery programs is safe or effective for use by the general public for any indication.

Even if any of our product candidates receive marketing approval, if we or others later identify undesirable or unacceptable side effects caused by such products:

- regulatory authorities may require us to take our approved product off the market;
- regulatory authorities may require the addition of labeling statements, specific warnings, contraindication, precaution or field alerts to physicians and pharmacies;
- we may be required to change the way the product is administered, limit the patient population who can use the product or conduct additional clinical trials;
- we may be subject to limitations on how we may promote the product;
- sales of the product may decrease significantly;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating revenue from the sale of any future products.

We face significant competition from entities that have developed or may develop product candidates for the treatment of diseases that we are initially targeting, including companies developing novel treatments and technology platforms. If our competitors develop and market products that are more effective, safer or less expensive than our product candidates, our commercial opportunities will be negatively impacted.

The development and commercialization of drugs and therapeutic biologics is highly competitive and subject to rapid and significant technological change. We are currently developing biotherapeutics that will compete with other drugs and therapies that currently exist or are being developed in the segments of the pharmaceutical, biotechnology and other related markets that develop autoimmune and inflammation treatments. Product candidates we may develop in the future are also likely to face competition from other drugs and therapies, some of which we may not currently be aware. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities, academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for the research, development, manufacturing and commercialization of autoimmune and inflammation therapies. Many of our competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources and commercial expertise than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and in manufacturing pharmaceutical products. These companies also have significantly greater research and marketing capabilities than we do and may

also have products that have been approved or are in late stages of development and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make our product candidates obsolete. As a result of all of these factors, our competitors may succeed in obtaining patent protection or FDA or other regulatory approval or discovering, developing and commercializing products in our field before we do.

There are many companies developing or marketing treatments for autoimmune and inflammatory diseases, including most major pharmaceutical and biotechnology companies, as well as many smaller biotechnology companies. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community, as well as novel treatments that are currently in preclinical or clinical development or may otherwise enter the market. We believe that a significant number of product candidates are currently under development, including various cellular immunotherapies. Additionally, companies with experience and knowledge in the development of therapies for oncology indications have now commenced the development of cell therapies for the treatment of autoimmune diseases, and the product candidates these companies develop may be competitive with product candidates that we are developing for autoimmune diseases. Should one or more of these competing product candidates or other competing product candidates of which we are not aware receive regulatory approval or otherwise achieve clinical or commercial success, our regulatory strategy could be impaired, our ability to obtain regulatory approval could be delayed or prevented, or the market for our product candidates may be reduced or eliminated, thereby harming or preventing our commercial success.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe effects, are more convenient or are less expensive than the products that we may develop. Our competitors also may obtain FDA or foreign regulatory approval for their products more rapidly than we may obtain approval for our product candidates, which could result in our competitors establishing a strong market position before we are able to enter the market.

Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and enrolling subjects for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. In addition, the biotechnology industry is characterized by rapid technological change. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

We and our third-party manufacturers have encountered and may continue to encounter difficulties in the production of product candidates, and supply chain shortages have limited and may continue to limit access to raw materials and other supplies. Should we encounter any such difficulties, our ability to manufacture drug substance or supply our product candidates for preclinical studies or future clinical trials or, if approved, for commercial sale, could be further delayed or halted entirely.

IgM antibodies have historically been particularly difficult to manufacture and CMOs have limited experience in the manufacturing of IgM antibodies. The process of manufacturing our product candidates is extremely susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, vendor or operator error, contamination and inconsistency in yields, variability in product characteristics, difficulties in scaling the production process and shipping issues. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. For example, because of supply chain constraints and staffing issues at one of our CMOs, we previously had to adjust the anticipated filing date of our IND application for one of our clinical candidates. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination, and we could be subject to sanctions, restrictions on the product candidate or on the manufacturing facilities, product liability claims or other adverse consequences, any of which could significantly and adversely affect supplies of our product candidates and harm our business and results of operations. Any interruption in the supply of clinical drug product from any cause could adversely affect the timing, enrollment and scope of any future clinical trials.

We may expend our limited resources to pursue product candidates or indications that do not yield a successful product and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Due to the significant resources required for the development of programs, we must focus our programs on specific product candidates and indications and decide which product candidates to pursue and advance and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular product candidates or indications may not lead to the development of any viable commercial product and may divert resources away from better opportunities. For example, in December 2023 we announced the deprioritization of all hematologic oncology clinical

development and the clinical development of our targeted cytokine product candidate. Further, in September 2024, we committed to the 2024 Restructuring, and in 2025, we committed to the 2025 Restructuring, pursuant to which we suspended clinical development activities for aplitabart and other oncology candidates and imvotamab and IGM-2644, respectively. These decisions or potential future decisions to delay, terminate or collaborate with third parties in respect of certain programs may subsequently also cause us to miss valuable opportunities. If we make incorrect determinations regarding the viability or market potential of any of our programs or product candidates or misread trends in the treatment of autoimmune or inflammatory diseases or the biotechnology industry, our business, financial condition and results of operations could be materially adversely affected. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, fail to recoup our research and development and other investments in the clinical programs we have selected, be required to forego or delay pursuit of opportunities with other product candidates or other indications that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to such product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain sole development and commercialization rights.

Clinical trials are expensive, time consuming and difficult to design and implement and may fail to demonstrate adequate safety and efficacy of our product candidates. Furthermore, the results of previous preclinical studies and clinical trials may not be predictive of future results, and the results of any clinical trials may not satisfy the requirements of the FDA or comparable foreign regulatory authorities or provide the basis for regulatory approval.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct preclinical development and then extensive clinical trials to demonstrate their safety and efficacy. Clinical testing is expensive and difficult to design and implement. Clinical testing can take many years to complete, and its ultimate outcome is uncertain.

A failure of one or more clinical trials can occur at any stage of the process. We will be required to demonstrate with substantial evidence through well-controlled clinical trials that our product candidates are safe and effective for use in a diverse patient population before we can seek regulatory approvals for their commercial sale. Any future clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional and expansive preclinical or clinical testing.

Positive or timely results from preclinical or early-stage trials do not ensure positive or timely results in future clinical trials or registrational clinical trials because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of the FDA and comparable foreign regulatory authorities, despite having progressed through preclinical studies or initial clinical trials. Product candidates that have shown promising results in early clinical trials may still suffer significant setbacks in subsequent clinical trials or registration clinical trials. For example, a number of companies in the pharmaceutical industry, including those with greater resources and experience than us, have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier clinical trials.

In addition, the FDA and other regulatory authorities may change their policies, issue additional regulations or revise existing regulations, any of which could delay our ability to obtain approvals, increase the costs of compliance or restrict our ability to maintain any regulatory approvals we may have obtained. In June 2024, the U.S. Supreme Court overruled the *Chevron* doctrine, which gives deference to regulatory agencies' statutory interpretations in litigation against federal government agencies, such as the FDA where the law is ambiguous. This Supreme Court decision may invite more companies and other stakeholders to bring lawsuits against the FDA to challenge longstanding decisions and policies of the FDA, including FDA's statutory interpretations of market exclusivities and the "substantial evidence" requirements for drug approvals, which could undermine the FDA's authority, lead to uncertainties in the industry, and disrupt the FDA's normal operations, any of which could delay the FDA's review of our regulatory submissions. We cannot predict the full impact of this decision on us or the pharmaceutical industry in general. Further, changes in the leadership of the FDA and other federal agencies under the current administration can result in changes in the funding, operations, and policies of the FDA and other federal agencies, which may impact any clinical development plans and timelines.

Interim, preliminary or topline data from any clinical trials that we announce or publish from time to time may change as more patient 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 publish interim, preliminary or topline data from future clinical trials. Interim data from future clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Interim or preliminary data from future clinical trials that we may conduct may not be indicative of the final results of the trial and are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data becomes available. Interim or preliminary data also remains subject to audit and verification procedures that may result in the final data being materially different from the interim or preliminary data. As a result, interim or preliminary data should be viewed with caution until the final data are available. Adverse differences between interim, preliminary or topline data and final data could significantly harm our reputation and business prospects. We do not

know whether any clinical trials we may conduct will demonstrate consistent or adequate efficacy and safety sufficient to obtain marketing approval to market our product candidates.

Moreover, preliminary, interim and topline data are subject to the risk that one or more of the clinical outcomes may materially change as more patient data become available when patients mature on study, patient enrollment continues or as other future clinical trials with a product candidate further develop. Past results of clinical trials may not be predictive of future results. In addition, the information we choose to publicly disclose regarding a particular study or future clinical trial is based on what is typically more 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. 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 candidate or our business. Similarly, even if we can initiate and complete preclinical studies and clinical trials of our product candidates according to our development timelines, the positive results from such preclinical studies and clinical trials may not be replicated in subsequent preclinical studies or clinical trial results. Moreover, preclinical, nonclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA or other regulatory approval.

If clinical trials for any product candidates that we may develop are prolonged, delayed or stopped, we may be unable to seek or obtain regulatory approval and commercialize our product candidates on a timely basis, or at all, which would require us to incur additional costs and delay our receipt of any product revenue.

We may experience delays in our preclinical studies or future clinical trials, and we do not know whether future preclinical studies or clinical trials will begin on time, need to be redesigned, enroll an adequate number of patients on time or be completed on schedule, if at all. For example, because of supply chain constraints and staffing issues at one of our CMOs, we had to postpone the filing date of our IND application for one of our former clinical candidates. The commencement or completion of any future clinical trials could be substantially delayed or prevented by many factors, including:

- further discussions with the FDA or comparable foreign regulatory authorities regarding the scope or design of our clinical trials;
- the limited number of, and competition for, suitable study sites and investigators to conduct any clinical trials, many of which may already be engaged in other clinical trial programs with similar patients, including some that may be for the same indication as our product candidates;
- any delay or failure to obtain timely approval or agreement to commence a clinical trial in any of the countries where enrollment is planned;
- inability to obtain sufficient funds required for a clinical trial;
- clinical holds on, or other regulatory objections to, a future clinical trial;
- delay or failure to manufacture sufficient supplies of the product candidate or combination agents for our clinical trials;
- delay or failure to reach agreement on acceptable clinical trial agreement terms or clinical trial protocols with prospective sites or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different sites or CROs;
- delay or failure to obtain institutional review board (IRB) approval to conduct a clinical trial at a prospective site;
- the FDA or other comparable foreign regulatory authorities may require us to submit additional data or impose other requirements before permitting us to initiate a clinical trial;
- slower than expected rates of patient recruitment and enrollment;
- failure of patients to complete the clinical trial;
- the inability to enroll a sufficient number of patients in studies to ensure adequate statistical power to detect statistically significant treatment effects;
- unforeseen safety issues, including severe or unexpected drug-related adverse effects experienced by patients, including possible deaths;
- lack of efficacy during clinical trials;
- termination of our clinical trials by one or more clinical trial sites;
- inability or unwillingness of patients or clinical investigators to follow our clinical trial protocols;

- inability to monitor patients adequately during or after treatment by us or our CROs;
- our CROs or clinical study sites failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, deviating from the protocol or dropping out of a study;
- the inability to produce or obtain sufficient quantities of a product candidate to complete clinical trials;
- inability to address any noncompliance with regulatory requirements or safety concerns that arise during the course of a clinical trial;
- the impact of, and delays related to, health epidemics such as the COVID-19 pandemic; and
- the need to suspend, repeat or terminate clinical trials as a result of non-compliance with regulatory requirements, inconclusive or negative results or unforeseen complications in testing; and the suspension or termination of our clinical trials upon a breach or pursuant to the terms of any agreement with, or for any other reason by, any future strategic partners that have responsibility for the clinical development of any of our product candidates.

Changes in regulatory requirements, policies and guidelines may also occur and we may need to significantly modify our clinical development plans to reflect these changes with appropriate regulatory authorities. These changes may require us to renegotiate terms with CROs or resubmit clinical trial protocols to IRBs for re-examination, which may impact the costs, timing or successful completion of a clinical trial. Our clinical trials may be suspended or terminated at any time by us, the FDA, other regulatory authorities, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or us.

Any failure or significant delay in commencing or completing clinical trials for our product candidates, any failure to obtain positive results from clinical trials, any safety concerns related to our product candidates, or any requirement to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate would adversely affect our ability to obtain regulatory approval and our commercial prospects and ability to generate product revenue will be diminished.

If we experience delays or difficulties in the enrollment of patients in clinical trials, including because of competition for patients, we will be unable to complete these trials on a timely basis, if at all.

We may experience difficulties in patient enrollment in our future clinical trials for a variety of reasons, including supply chain disruptions, staffing shortages and other business and economic disruptions resulting from geopolitical actions, including war and terrorism, natural disasters, including earthquakes, typhoons, floods and fires, as well as other disruptions resulting from the impact of public health factors, including the COVID-19 pandemic, business disruptions of our strategic partners, third-party manufacturers, suppliers and other third parties upon which we rely. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the trial until completion of treatment and adequate follow-up. The enrollment of patients depends on many factors, including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the proximity of subjects to clinical sites and ability of subjects to travel to clinical trial sites;
- continued enrollment of prospective patients by clinical trial sites;
- efforts to facilitate timely enrollment;
- the eligibility criteria for the trial;
- the design of the clinical trial;
- patient referral practices of physicians;
- ability to obtain and maintain patient consents;
- ability to monitor patients adequately during and after treatment;
- risk that enrolled subjects will drop out before completion;
- clinicians' and patients' perceptions as to the potential advantages and disadvantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating; and
- inability to enroll, or delay in enrollment of, patients due to outbreaks and public health crises, such as the COVID-19 pandemic.

In addition, our competitors, some of whom have significantly greater resources than we do, may conduct clinical trials for the same indications and seek to enroll patients in their studies that may otherwise be eligible for our future clinical trials, which could lead to slow recruitment and delays in our clinical programs. Further, since the number of qualified clinical investigators is limited, we may conduct some of our future clinical trials at the same clinical trial sites that some of our competitors use, which could further reduce the number of patients who are available for our future clinical trials in these sites. Moreover, because our product candidates represent a departure from existing treatments of autoimmune and inflammatory diseases, potential patients and their doctors may be inclined to use conventional therapies, such as anti-inflammatory drugs, corticosteroids, or systemic immunosuppressive drugs, rather than enroll patients in our clinical trials.

Our inability to enroll sufficient number of patients for our future clinical trials would result in significant delays or may require us to abandon one or more of these clinical trials altogether. If we are unable to enroll a sufficient number of patients that will complete clinical testing, we will be unable to seek or gain marketing approval for such product candidates and our business will be harmed. Even if we can enroll a sufficient number of patients in our future clinical trials, delays in patient enrollment may result in increased costs or may affect the timing or outcome of future clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates.

We face risks related to health epidemics and other outbreaks, such as COVID-19, which could significantly disrupt our operations or otherwise result in material adverse impacts to us.

Our business could be adversely impacted by the effects of health epidemics and other outbreaks, including:

- delays or difficulties in enrolling and retaining patients in future clinical trials, and incurrence of additional costs as a result of any preclinical study and clinical trial delays and adjustments;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- shutdowns or continued business disruptions experienced by suppliers and other third parties with whom we conduct business;
- diversion of healthcare resources away from the conduct of future clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of clinical trials;
- interruption or delays of key clinical trial activities, such as clinical trial site monitoring and collecting sufficient clinical data, patient safety considerations or limitations on travel imposed or recommended by federal or state governments, employers and others;
- other limitations on resources that would otherwise be focused on the conduct of our business or future clinical trials or preclinical research, including because of sickness, the desire to avoid contact with large groups of people or government restrictions;
- delays in receiving approval from regulatory authorities to initiate our future clinical trials;
- delays in receiving the supplies, materials and services needed to conduct clinical trials and preclinical research or to support manufacturing activities of our business and that of our suppliers or contractors;
- changes in clinical site policies and procedures for conducting clinical trials during the pandemic;
- changes in regulations as part of a response to health epidemics or other outbreaks which may require us to change the ways in which our future clinical trials are conducted and incur unexpected costs, or require us to discontinue the clinical trials altogether; and
- delays in necessary interactions with regulators, ethics committees and other important agencies and contractors.

On May 11, 2023, the federal government ended the COVID-19 public health emergency, which ended a number of temporary changes made to federally funded programs, although some continue to be in effect. The extent to which any health epidemic impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of a particular virus and its variants and the actions to contain it or treat its impact, among others.

Material changes in methods of product candidate manufacturing or formulation may result in the need to perform new clinical trials, which would require additional costs and cause delay.

As product candidates are developed through preclinical to late-stage clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way

in an effort to optimize yield and manufacturing batch size, minimize costs and achieve consistent quality and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of future clinical trials conducted with the altered materials. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidates and jeopardize our ability to commence product sales and generate revenue.

The design or execution of our future clinical trials may not support regulatory approval.

The design or execution of a clinical trial can determine whether its results will support regulatory approval and flaws in the design or execution of a clinical trial may not become apparent until the clinical trial is well advanced. In some instances, there can be significant variability in safety or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in size and type of the patient populations, adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. We do not know whether any future clinical trials that we may conduct will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates.

Further, the FDA and comparable foreign regulatory authorities have substantial discretion in the approval process and in determining when or whether regulatory approval will be obtained for any of our product candidates. Our product candidates may not be approved even if they achieve their primary endpoints in potential future Phase 3 clinical trials or registration trials. The FDA or comparable foreign regulatory authorities may disagree with our trial design and our interpretation of data from preclinical studies and clinical trials. In addition, any of these regulatory authorities may change requirements for the approval of a product candidate even after reviewing and providing comments or advice on a protocol for a pivotal Phase 3 clinical trial. In addition, any of these regulatory authorities may also approve a product candidate for fewer or more limited indications than we request or may grant approval contingent on the performance of costly post-marketing clinical trials. The FDA or comparable foreign regulatory authorities may not approve the labeling claims that we believe would be necessary or desirable for the successful commercialization of our product candidates. Failure to successfully obtain regulatory approval could have a material adverse impact on our business and financial performance.

Even if any of our product candidates receive regulatory approval, the approved products may not achieve broad market acceptance among physicians, patients, the medical community and third-party payors, in which case revenue generated from their sales would be limited.

Even if regulatory approval is obtained for a product candidate, we may not generate or sustain revenue from sales of the product due to factors such as whether the product can be sold at a competitive price and otherwise will be accepted in the market. The antibodies we are developing use relatively new technologies. Market participants with significant influence over acceptance of new treatments, such as physicians and third-party payors, may not adopt a product or treatment based on our technologies, and the medical community and third-party payors may not accept and use, or provide favorable reimbursement for, any product candidates developed by us. The commercial success of our product candidates will depend upon their acceptance among physicians, patients, the medical community and third-party payors. The degree of market acceptance of any of our product candidates will depend on a number of factors, including:

- the efficacy and safety profile as demonstrated in future clinical trials compared to alternative treatments;
- limitations or warnings contained in the approved labeling for our product candidates;
- changes in the standard of care for the targeted indications for our product candidates;
- the clinical indications for which any product candidate is approved;
- lack of significant adverse side effects;
- the effectiveness of sales and marketing efforts;
- availability and extent of coverage and adequate reimbursement, as well as pricing, by managed care plans and other third-party payors, including government authorities;
- patients' willingness to pay out-of-pocket in the absence of coverage and/or adequate reimbursement from third-party payors;
- timing of market introduction of our product candidate as well as competitive products;
- the potential and perceived advantages of our product candidate over alternative treatments;
- the degree of cost-effectiveness of our product candidate;
- availability of alternative therapies at similar or lower cost, including generic and over-the-counter products;

- the extent to which any product candidate is approved for inclusion on formularies of hospitals and managed care organizations;
- whether the product is designated under physician treatment guidelines as a first-line therapy or as a second or third-line therapy for particular indications;
- whether our product candidate can be used effectively with other therapies to achieve higher response rates;
- adverse publicity about our product candidate or favorable publicity about competitive products;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the approval of other new therapies for the same indications;
- relative convenience and ease of administration of our product candidates; and
- potential product liability claims.

If any of our product candidates are approved, but do not achieve an adequate level of acceptance by physicians, patients, the medical community and third-party payors, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

We may be unsuccessful, in obtaining or may be unable to maintain the benefits associated with, orphan drug designation for current or future product candidates that we may develop. If our competitors are able to obtain orphan product exclusivity for their products in specific indications, we may not be able to have competing products approved in those indications by the applicable regulatory authority for a significant period of time.

Under the Orphan Drug Act, the FDA may designate a product candidate as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. We may elect to seek Orphan Drug Designation for certain indications for our product candidates. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

Generally, if a product candidate with an Orphan Drug Designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA from approving another marketing application for the same drug for the same indication for seven years. Therefore, if our competitors are able to obtain orphan product exclusivity for their product candidates in the same indications we are pursuing, we may not be able to have competing products approved in those indications by the applicable regulatory authority for a significant period of time. There are also limited circumstances where the FDA may reduce the seven-year exclusivity for a product candidate with an orphan drug designation where other product candidates show clinical superiority to the product with orphan exclusivity or if the FDA finds that the holder of the orphan exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan product to meet the needs of patients with the disease or condition for which the drug was designated. Historically, development of IgM antibodies has been limited by difficulties in recombinant expression and manufacture of these antibodies; therefore, the FDA may determine that we cannot assure the availability of sufficient quantities of our product candidates to the extent necessary to support marketing exclusivity. As a result, even if one of our product candidates receives orphan exclusivity, the FDA can still approve other drugs that have a different active ingredient for use in treating the same indication or disease. Furthermore, the FDA can waive orphan exclusivity if we are unable to manufacture sufficient supply of our product.

In *Catalyst Pharms., Inc. v. Becerra*, 14 F.4th 1299 (11th Cir. 2021), the court disagreed with the FDA's longstanding position that the orphan drug exclusivity only applies to the approved use or indication within an eligible disease. This decision created uncertainty in the application of the orphan drug exclusivity. However, in January 2023, the FDA published a notice in the Federal Register to clarify that while the agency complies with the court's order in *Catalyst*, the FDA intends to continue to apply its longstanding interpretation of the regulations to matters outside of the scope of the *Catalyst* order – that is, the agency will continue tying the scope of orphan-drug exclusivity to the uses or indications for which a drug is approved, which permits other sponsors to obtain approval of a drug for new uses or indications within the same orphan designated disease or condition that have not yet been approved. It is unclear how future litigation, legislation, agency decisions, and administrative actions will impact the scope of the orphan drug exclusivity. In June 2024, the U.S. Supreme Court overruled the *Chevron* doctrine, which gives deference to regulatory agencies' statutory interpretations in litigation against federal government agencies, such as the FDA, where the law is ambiguous. This landmark Supreme Court decision may invite various stakeholders to bring lawsuits against the FDA to challenge longstanding decisions and policies of the FDA, including the FDA's statutory interpretations of market exclusivities, lead to uncertainty in the industry, and disrupt the FDA's normal operations. Changes in the leadership of the FDA and other federal agencies under the current administration can result in

changes in the funding, operations, and policies of the FDA and other federal agencies, which may impact our clinical development plans and timelines.

Even if we obtain FDA approval of any of our product candidates, we may never obtain approval or commercialize such products outside of the United States, which would limit our ability to realize their full market potential.

In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and approval standards. Clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approvals could result in significant delays, difficulties and costs for us and may require additional preclinical studies or clinical trials which would be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. Satisfying these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. In addition, our failure to obtain regulatory approval in any country may delay or have negative effects on the process for regulatory approval in other countries. We do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, our target market will be reduced and our ability to realize the full market potential of our products will be harmed.

Reimbursement decisions by third-party payors may have an adverse effect on pricing and market acceptance. If reimbursement is not available or is not sufficient for our products, it is less likely that our products will be widely used.

Even if our product candidates are approved for sale by the appropriate regulatory authorities, market acceptance and sales of these products will depend on coverage and reimbursement policies and may be affected by future healthcare reform measures. Third-party payors, such as government healthcare programs, private health insurers and health maintenance organizations, decide which drugs they will cover and establish the level of reimbursement for such drugs. One third-party payor's determination to provide coverage for a product candidate does not assure that other payors will also provide coverage for the product candidate. We cannot be certain that coverage and reimbursement will be available or adequate for any products that we develop. If coverage and adequate reimbursement is not available or is available on a limited basis, we may not be able to successfully commercialize any of our product candidates, if approved.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA, EMA or other regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution expenses. Interim reimbursement levels for new drugs, if applicable, may also be insufficient to cover our and any collaborator's costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future change to laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Our inability to promptly obtain coverage and adequate reimbursement from third-party payors, including both government-funded and private payors, for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize product candidates and our overall financial condition.

If the market opportunities for any product that we develop are smaller than we believe they are, our revenue may be adversely affected and our business may suffer.

We focus our product candidate development on therapeutic IgM antibodies in autoimmune and inflammatory diseases. Our projections of addressable patient populations that have the potential to benefit from treatment with our product candidates are based on estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, physician interviews, patient foundations and market research, and may prove to be incorrect. Further, new developments, such as the development of vaccines or new therapeutics, may change the estimated incidence or prevalence of the diseases targeted by our programs. The number of patients may turn out to be lower than expected. If any of the foregoing estimates are inaccurate, the market opportunities for any of our product candidates could be significantly diminished and have an adverse material impact on our business.

Development of product candidates in combination with other therapies could expose us to additional risks.

Even if any of our product candidates were to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to be subject to the risks that the FDA or other comparable foreign regulatory authorities could revoke approval of the therapy used in combination with any of our product candidates, or safety, efficacy, manufacturing or supply issues could arise with these existing therapies. In addition, it is possible that existing therapies with which our product candidates are approved for use could themselves fall out of favor or be relegated to later lines of treatment. This could result in the need to identify other combination therapies for our product candidates or our own products being removed from the market or being less successful commercially. We may also evaluate our product candidates in combination with one or more other therapies that have not yet been approved for marketing by the FDA or comparable foreign regulatory authorities. We will not be able to market and sell any product candidate in combination with any such unapproved therapies that do not ultimately obtain marketing approval. If the FDA or other comparable foreign regulatory authorities do not approve or revoke their approval of these other therapies, or if safety, efficacy, commercial adoption, manufacturing or supply issues arise with the therapies we choose to evaluate in combination with any other product candidate, we may be unable to obtain approval of or successfully market any one or all of the product candidates we develop.

Additionally, if the third-party providers of therapies or therapies in development used in combination with our product candidates are unable to produce sufficient quantities for clinical trials or for commercialization of our product candidates, or if the cost of combination therapies are prohibitive, our development and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

Even if we receive regulatory approval to commercialize any of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which will result in significant additional expense.

Any regulatory approvals that we receive for our product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or subject to certain conditions of approval, and may contain requirements for potentially costly post-approval trials, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the marketed product.

For any approved product, we will be subject to ongoing regulatory obligations and extensive oversight by regulatory authorities, including with respect to manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product. These requirements include submissions of safety and other post-approval information and reports, as well as continued compliance with cGMP and current good clinical practices (cGCP) for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with 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 the product;
- withdrawal of the product from the market or voluntary or mandatory product recalls;
- adverse publicity, fines, warning letters or holds on clinical trials;
- refusal by the FDA, EMA or another applicable regulatory authority to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

Further, the FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. While physicians may prescribe, in their independent professional medical judgment, products for off-label uses as the FDA does not regulate the behavior of physicians in their choice of drug treatments, the FDA does restrict manufacturer's communications on the subject of off-label use of their products. Companies may only share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses and a company that is found to have improperly promoted off-label uses may be subject to significant liability including, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. The federal government has levied large civil and criminal fines against companies for alleged improper promotion of off-label use and has enjoined companies from engaging in off-label promotion. The FDA and other regulatory agencies have also required that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

Occurrence of any of the foregoing could have a material and adverse effect on our business and results of operations. Further, the FDA's or comparable foreign regulatory authorities' policies may change and additional government regulations may be enacted that

could prevent, limit or delay regulatory approval of our product candidates. 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 lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to generate revenue or achieve or sustain profitability.

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

We face an inherent risk of product liability lawsuits related to the testing of our product candidates in seriously ill patients, and we will face an even greater risk if product candidates are approved by regulatory authorities and introduced commercially. Product liability claims may be brought against us by participants enrolled in our clinical trials, patients, health care providers or others using, administering or selling any of our future approved products. If we cannot successfully defend ourselves against any such claims, we may incur substantial liabilities. Regardless of their merit or eventual outcome, liability claims may result in:

- decreased demand for any future approved products;
- injury to our reputation;
- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- increased regulatory scrutiny, including investigations by the FDA and other regulators of the safety and effectiveness of our products, our manufacturing processes and facilities or our marketing programs;
- significant litigation costs;
- substantial monetary awards to or costly settlement with patients or other claimants;
- product recalls, a change in the indications for which they may be used or suspension or withdrawal of marketing approvals;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize our product candidates.

If any of our product candidates are approved for commercial sale, we will be highly dependent upon consumer perceptions of us and the safety and quality of our products. We could be adversely affected if we are subject to negative publicity. We could also be adversely affected if any of our products or any similar products distributed by other companies prove to be, or are asserted to be, harmful to patients. Because of our dependence upon consumer perceptions, any adverse publicity associated with illness or other adverse effects resulting from patients' use or misuse of our products or any similar products distributed by other companies could have a material adverse impact on our financial condition or results of operations.

We may need to have in place increased product liability coverage if and when we begin the commercialization of our product candidates. Insurance coverage is becoming increasingly expensive. As a result, we may be unable to maintain or obtain sufficient insurance at a reasonable cost to protect us against losses that could have a material adverse effect on our business. A successful product liability claim or series of claims brought against us, particularly if judgments exceed any insurance coverage we may have, could decrease our cash resources and adversely affect our business, financial condition and results of operation.

Any product candidates for which we may seek approval may face competition sooner than anticipated.

Our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of biosimilar products. The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (ACA), created a new regulatory scheme authorizing the FDA to approve biosimilars. Under the ACA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." Under this statutory scheme, an application for a biosimilar product may not be submitted to the FDA until four years following approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, efficacy and potency of their product. Furthermore, recent legislation has proposed that the 12-year exclusivity period for a referenced product may be reduced to seven years.

Foreign governments tend to impose strict price controls, which may adversely affect our future profitability.

In most foreign countries, particularly those in the European Union, prescription drug pricing and reimbursement is subject to governmental control. In those countries that impose price controls, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidates to other available therapies.

Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product candidate in a particular country, but then be subject to price regulations that delay commercial launch of the product candidate, possibly for lengthy time periods, and negatively impact the revenue that are generated from the sale of the product in that country. If reimbursement of such product candidates is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, or if there is competition from lower priced cross-border sales, our profitability will be negatively affected.

Current and future legislation may increase the difficulty and cost for us to commercialize our product candidates, if approved, and affect the prices we may obtain.

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change healthcare systems in ways that could affect our ability to sell any of our product candidates profitably, if such product candidates are approved for sale. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and 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.

Our revenue prospects could be affected by changes in healthcare spending and policy in the United States and abroad. We operate in a highly regulated industry and new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to healthcare availability, the method of delivery or payment for healthcare products and services could negatively impact our business, operations and financial condition. There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare, including proposals aimed at lowering prescription drug prices and increasing competition for prescription drugs, as well as additional regulation on pharmaceutical transparency and reporting requirements, any of which could negatively impact our future profitability and increase our compliance burden. We cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- The demand for our product candidates, if approved;
- Our ability to set a price that we believe is fair for our products;
- Our ability to obtain coverage and reimbursement approval for a product;
- Our ability to generate revenue and achieve or maintain profitability;
- The level of taxes that we are required to pay; and
- The availability of capital.

Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect our future profitability.

In March 2010, the ACA was enacted, which includes measures that have significantly changed the way healthcare is financed by both governmental and private insurers, and continues to significantly impact the United States pharmaceutical industry. Among the provisions of the ACA of importance to the pharmaceutical industry are the following:

- an annual, non-deductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price (AMP), for most branded and generic drugs, respectively;

- Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% point-of-sale discounts to 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;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- requirement that applicable manufacturers and group purchasing organizations report annually to the Centers for Medicare & Medicaid Services (CMS), information regarding certain payments and other transfers of value given to physicians and teaching hospitals, and any ownership or investment interest that physicians, or their immediate family members, have in their company;
- a requirement that manufacturers and authorized distributors of applicable drugs annually report information related to samples provided to practitioners;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a licensure framework for follow-on biologic products;
- 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
- establishment of a Center for Medicare & Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there remain judicial and Congressional challenges to certain aspects of the ACA. For example, in June 2021 the U.S. Supreme Court held that Texas and other challengers had no legal standing to challenge the ACA, dismissing the case on procedural grounds without specifically ruling on the constitutionality of the ACA. Thus, the ACA will remain in effect in its current form. In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year pursuant to the Budget Control Act of 2011, which began in 2013 and, due to subsequent legislative amendments will remain in effect through 2032, with the exception of a temporary suspension implemented under various COVID-19 relief legislation. Moreover, there has recently been heightened governmental scrutiny over the manner in which drug 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 drug products.

Under the American Rescue Plan Act of 2021, the statutory cap on Medicaid Drug Rebate Program rebates that manufacturers pay to state Medicaid programs was eliminated. Elimination of this cap may require pharmaceutical manufacturers to pay more in rebates than it receives on the sale of products, which could have a material impact on our business. In August 2022, Congress passed the IRA, which includes prescription drug provisions that have significant implications for the pharmaceutical industry and Medicare beneficiaries, including allowing the federal government to negotiate a maximum fair price for certain high-priced single source Medicare drugs, imposing penalties and excise tax for manufacturers that fail to comply with the drug price negotiation requirements, requiring inflation rebates for all Medicare Part B and Part D drugs, with limited exceptions, if their drug prices increase faster than inflation, and redesigning Medicare Part D to reduce out-of-pocket prescription drug costs for beneficiaries, among other changes. Under the Medicare price negotiation provisions, only high-expenditure single-source drugs that have been approved for at least 7 years (11 years for single-source biologics) qualify for negotiation, with the negotiated price taking effect two years after the selection year. For 2026, the first year in which negotiated prices become effective, CMS selected 10 high-cost Medicare Part D drugs in 2023, negotiations began in 2024, and the negotiated maximum fair price for each drug has been announced. CMS has selected 15 additional Medicare Part D drugs for negotiated maximum fair pricing in 2027. For 2028, up to an additional 15 drugs, which may be covered under either Medicare Part B or Part D, will be selected, and for 2029 and subsequent years, up to 20 additional Part B or Part D drugs will be selected. Various pharmaceutical companies have initiated lawsuits against the federal government asserting that the price negotiation provisions of the IRA are unconstitutional. With the Supreme Court's overturn of the *Chevron* doctrine, the IRA as well as other administration decisions of HHS, including those of the CMS, may be subject to increased litigation and judicial scrutiny. The full impact of these judicial challenges as well as future legislative, executive, and administrative actions and agency rules implemented by the government on us and the pharmaceutical industry as a whole is unclear. The implementation of cost containment measures, including the prescription drug provisions under the IRA, as well as other healthcare reforms may prevent us from being

able to generate revenue, attain profitability, or commercialize our product candidates if approved. Uncertainties created by the IRA and other cost containment measures may negatively impact potential investments, company valuation, royalty-based earnings, mergers and acquisitions in our industry. Further, many states have proposed or enacted legislation and administrative actions that seek to indirectly or directly regulate pharmaceutical drug pricing, such as by requiring biopharmaceutical manufacturers to publicly report proprietary pricing information or to place a maximum price ceiling on pharmaceutical products purchased by state agencies. The FDA has authorized the state of Florida to develop Section 804 Importation Programs to import certain prescription drugs from Canada for a limited period of time to help reduce drug costs, provided that Florida's Agency for Health Care Administration meets the requirements set forth by the FDA. Other states may follow Florida. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could affect the prices we may obtain for any of our product candidates for which we may obtain regulatory approval or the frequency with which any such product candidate, if approved, is prescribed or used. Complying with any new legislation and regulatory changes could be time-intensive and expensive, resulting in a material adverse effect on our business.

In the European Union similar political, economic and regulatory developments may affect our ability to profitably commercialize our current or any future products. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or member state level may result in significant additional requirements or obstacles that may increase our operating costs. In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. Our future products, if any, might not be considered medically reasonable and necessary for a specific indication or cost-effective by third-party payors, an adequate level of reimbursement might not be available for such products and third-party payors' reimbursement policies might adversely affect our ability to sell any future products profitably.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-approval testing and other requirements.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. 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, our product candidates may lose any marketing approval that may have been obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Inadequate funding for the FDA, the SEC and other government agencies could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those 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, including delays or disruptions due to the health epidemics, travel restrictions, or staffing shortages, may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. If a prolonged government shutdown or disruption occurs, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions and provide feedback on our clinical development plans, which could have a material adverse effect on our business and our anticipated timelines. Further, in our operations as a public company, future government shutdowns or other disruptions to normal operations could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Our business may become subject to economic, political, regulatory and other risks associated with international operations.

Our business may be subject to risks associated with conducting business internationally. Some of our future clinical trial sites may be, and some of our suppliers and collaborators are, located outside of the United States. We may also enter into additional non-U.S markets. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- differing regulatory requirements for drug approvals in foreign countries;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country's or region's political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;
- differing reimbursement regimes, including price controls;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- difficulties associated with staffing and managing foreign operations, including differing labor relations;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war (such as the ongoing conflict between Russia and Ukraine) and terrorism, natural disasters, or public health emergencies such as the COVID-19 pandemic.

In particular, there is currently significant uncertainty about the future relationship between the United States and various other countries, most significantly China, with respect to trade policies, treaties, tariffs, taxes, and other limitations on cross-border operations. The U.S. government has made and continues to make significant additional changes in U.S. trade policy and may continue to take future actions that could negatively impact U.S. trade. For example, legislation has been introduced in Congress to limit certain U.S. biotechnology companies from using equipment or services produced or provided by select Chinese biotechnology companies, and others in Congress have advocated for the use of existing executive branch authorities to limit those Chinese service providers' ability to engage in business in the U.S. We cannot predict what actions may ultimately be taken with respect to trade relations between the United States and China or other countries, what products and services may be subject to such actions or what actions may be taken by the other countries in retaliation. If we are unable to obtain or use services from existing service providers or become unable to export or sell our products to any of our customers or service providers, our business, liquidity, financial condition, and/or results of operations would be materially and adversely affected.

Our business and current and future relationships with customers and third-party payors in the United States and elsewhere will be subject, directly or indirectly, to applicable federal and state anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens, and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the United States and elsewhere play a primary role in the recommendation and prescription of any product candidates for which we may obtain marketing approval. Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers, and third-party payors and other entities may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which we conduct clinical research on product candidates and market, sell and distribute any products for which we obtain marketing approval. In addition, we may be subject to transparency laws and patient privacy regulation by the federal government and by the U.S. states and foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws that may affect our ability to operate include, but are not limited to, the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration (including any kickback, bribe or rebate), directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made, in whole or in part, under federal and state healthcare programs such as Medicare and Medicaid;

- federal civil and criminal false claims laws, including the civil False Claims Act, which can be enforced by private citizens on behalf of the government, through civil whistleblower, or qui tam actions, and the federal civil monetary penalty laws, which impose criminal and civil penalties against individuals or entities, among other things, for knowingly presenting, or causing to be presented, false or fraudulent claims for payment of federal funds, and knowingly making, or causing to be made, false record or statement material to a false or fraudulent claim to avoid, decrease or conceal an obligation to pay money to the federal government;
- HIPAA, which among other things, imposes criminal liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services relating to healthcare matters;
- HIPAA, as amended by HITECH, and its implementing regulations, which imposes certain obligations, including mandatory contractual terms on covered entities, including certain healthcare providers, health plans and healthcare clearinghouses as well as their respective business associates that create, receive, maintain or transmit individually health information for or on behalf of a covered entity and their subcontractors that use, disclose or otherwise process individually identifiable health information, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal Open Payments program under the Physician Payments Sunshine Act, created under Section 6002 of the ACA and its implementing regulations, which requires certain manufacturers of covered drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) and applicable group purchasing organizations to report annually to CMS information related to "payments or other transfers of value" made to covered recipients, such as physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain non-physician healthcare professionals (such as physician assistants and nurse practitioners, among others), and teaching hospitals, and information regarding ownership and investment interests held by physicians (as defined above) and their immediate family members. The information reported annually is publicly available on a searchable website;
- analogous state and foreign laws and regulations, including: state anti-kickback and false claims laws which may apply to our business practices, including, but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by state governmental and non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government; state laws that require drug manufacturers to track gifts and other remuneration and items of value provided to healthcare professionals and entities; state and local laws that require the registration of pharmaceutical sales representatives; and state laws that require drug manufacturers to report information relating to pricing and marketing information; and
- state and foreign laws that govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and often are not pre-empted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available, it is possible that some of our current and future business activities could be subject to challenge under one or more of such laws. In addition, recent healthcare reform legislation has strengthened these laws. For example, the ACA, among other things, amends the intent requirement of the U.S. federal Anti-Kickback Statute and certain criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them in order to have committed a violation. Moreover, the ACA provides that the government may assert that a claim including items or services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws. If our operations are found to be in violation of any of these laws or any other laws that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, 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 the curtailment or restructuring of our operations, which could have a material adverse effect on our business. If any of the physicians or other providers or entities with whom we expect to do business, is found not to be in compliance with applicable laws, it may be

subject to significant criminal, civil or administrative sanctions, including exclusions from participation in government healthcare programs, which could also materially affect our business.

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 can face criminal liability and other serious consequences for violations which can 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, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, 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, the United Kingdom Bribery Act 2010, the Proceeds of Crime Act 2002, 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, contractors, and other partners from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties for future clinical trials outside of the United States, to sell our products abroad once we enter a commercialization phase, or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals. We may 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, contractors, and other partners, even if we do not explicitly authorize or have actual knowledge of such activities. Any violation 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.

Our employees, independent contractors, principal investigators, consultants and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees and independent contractors, such as principal investigators, consultants and vendors, could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with federal and state health care fraud and abuse laws, to report financial information or data accurately or to disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the health care industry are subject to extensive laws intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee and independent contractor misconduct could also involve the improper use of information obtained during clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a written code of business conduct and ethics, but it is not always possible to identify and deter employee or independent contractor misconduct, 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 comply with these laws or regulations. 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, including the imposition of significant fines or other sanctions.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our research and development involves, and may in the future involve, the use of potentially hazardous materials and chemicals. Our operations may produce hazardous waste products. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by local, state and federal laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations and fire and building codes, including those governing laboratory procedures, exposure to blood-borne pathogens, use and storage of flammable agents and the handling of biohazardous materials. Although we maintain workers' compensation insurance as prescribed by the State of California to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. Current or future laws and regulations may impair our research, development or commercialization efforts. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.

We have incurred significant losses since our inception. Our net loss for the years ended December 31, 2024, 2023, and 2022 was $195.8 million, $246.4 million, and $221.1 million, respectively. As of December 31, 2024, our accumulated deficit was approximately $1.0 billion. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates, prepare for and begin to commercialize any approved product candidates and add infrastructure and personnel to support our product development efforts and operations as a public company. Historically we have financed our operations primarily through the sale of equity and debt securities as well as funding received from our collaboration partners. We do not generate any revenue from product sales and our product candidates will require substantial additional investment before they may provide us with any revenue, if ever.

The net losses and negative cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our shareholders' deficit and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. The net losses we incur may fluctuate significantly from quarter-to-quarter such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

Because of the numerous risks and uncertainties associated with drug development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to generate product revenue or achieve profitability. For example, our expenses could increase if we are, in the future, required by the FDA to perform clinical trials in addition to those that we may, in the future, expect to perform, or if there are any delays in completing future clinical trials or in the development of any of our product candidates.

Drug development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable. Our ability to generate revenue and achieve profitability depends significantly on our ability to achieve a number of objectives.

Since the commencement of our operations, we have focused substantially all of our resources on conducting research and development activities, including drug discovery, preclinical studies and clinical trials, establishing and maintaining our intellectual property portfolio, the manufacturing of clinical and research material, developing our in-house manufacturing capabilities, hiring personnel, raising capital and providing general and administrative support for these operations. Since 2010, such activities have exclusively related to the research, development and manufacture of IgM antibodies and to building our proprietary IgM antibody technology platform. We are still in the early stages of developing our product candidates, and we have not completed development of any product candidate. As a result, we expect that it will be several years, if ever, before we generate revenue from product sales. Our ability to generate revenue and achieve profitability depends in large part on our ability, to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize, product candidates. We do not anticipate generating revenue from sales of products for the foreseeable future.

To generate product revenue and become and remain profitable, we must succeed in developing and commercializing product candidates with significant market potential. This will require us to be successful in a range of challenging activities for which we are only in the preliminary stages, including:

- successfully completing preclinical and clinical development of our product candidates in a timely manner;
- obtaining regulatory approval for such product candidates in a timely manner;
- satisfying any post-marketing approval commitments required by applicable regulatory authorities;
- developing an efficient, scalable and compliant manufacturing process for such product candidates, including expanding and maintaining manufacturing operations, commercially viable supply and manufacturing relationships with third parties to obtain finished products that are appropriately packaged for sale;
- successfully launching commercial sales following any marketing approval, including the development of a commercial infrastructure, whether in-house or with one or more collaborators;
- maintaining a continued acceptable safety profile following any marketing approval;

- achieving commercial acceptance of such product candidates as viable treatment options by patients, the medical community and third-party payors;
- addressing any competing technological and market developments;
- identifying, assessing, acquiring and developing new product candidates;
- obtaining and maintaining patent protection, trade secret protection and regulatory exclusivity, both in the United States and internationally;
- protecting our rights in our intellectual property portfolio, including our licensed intellectual property;
- negotiating favorable terms in any collaboration, licensing or other arrangements that may be necessary to develop, manufacture or commercialize our product candidates; and
- attracting, hiring and retaining qualified personnel.

We may never succeed in these activities and may never generate revenue from product sales that is significant enough to achieve profitability. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our failure to become or remain profitable would depress our market value and could impair our ability to raise capital, expand our business, develop other product candidates, or 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 funding to finance our operations, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back or cease our product development programs or operations.

All of our product candidates and discovery programs are in preclinical development. Developing drug products, including conducting preclinical studies and clinical trials, is expensive. In order to obtain such regulatory approval, we will be required to conduct clinical trials for each indication for each of our product candidates, which will increase our expenses. We will continue to require additional funding to complete the development and commercialization of our product candidates, to continue to advance our discovery programs, to expand our manufacturing facilities and to satisfy additional costs that we have incurred and expect to continue to incur in connection with operating as a public company. Such funding may not be available on acceptable terms or at all.

As of December 31, 2024, we had $183.8 million in cash, cash equivalents, and marketable securities. We believe that our existing cash, cash equivalents, and marketable securities will enable us to fund our operating expenses and capital expenditure requirements for at least one year past the issuance date of the financial statements included elsewhere in this Annual Report on Form 10-K. Our estimate as to how long we expect our cash, cash equivalents, and marketable securities to be able to continue to fund our operations is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Changing circumstances, some of which may be beyond our control, could cause us to consume capital significantly faster than we currently anticipate, and we may need to seek additional funds sooner than planned. In addition, because successful development of our product candidates is uncertain, we are unable to estimate the actual funds we will require to complete research and development and to commercialize our product candidates.

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

- the initiation, scope, rate of progress, results and cost of our preclinical studies, clinical trials and other related activities for our product candidates;
- the costs associated with manufacturing our product candidates and establishing commercial supplies and sales, marketing and distribution capabilities;
- the timing and cost of capital expenditures to support our research, development and manufacturing efforts;
- the number and characteristics of other product candidates that we pursue;
- the costs, timing and outcome of seeking and obtaining FDA and non-U.S. regulatory approvals;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;
- the timing, receipt and amount of sales from our potential products;
- our need and ability to hire additional management, scientific and medical personnel;
- the effect of competing products that may limit market penetration of our product candidates;

- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- the economic and other terms, timing and success of any collaboration, licensing, or other arrangements into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under these agreements;
- the impact of macroeconomic conditions, including inflation, supply chain disruption and volatility in the capital markets, on our business, financial condition and results of operations;
- the compliance and administrative costs associated with being a public company; and
- the extent to which we acquire or invest in businesses, products or technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

Until we can generate enough product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through one or more public and private equity offerings, debt financings and strategic partnerships. We do not have any committed external source of funds. If sufficient funds on acceptable terms are not available when needed, or at all, we could be forced to significantly reduce operating expenses and delay, scale back or eliminate one or more of our clinical or discovery programs or our business operations.

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

Global credit and financial markets have experienced extreme disruptions at various points over the last few decades, characterized by diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. For example, ongoing armed conflicts have created volatility in the capital markets and are expected to have further global economic consequences. If another such disruption in credit and financial markets and deterioration of confidence in economic conditions occurs, our business may be adversely affected. If the equity and credit markets were to deteriorate significantly in the future, it may make any necessary debt or equity financing more difficult to complete, 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 share price and could require us to delay or abandon development or commercialization plans. In addition, there is a risk that one or more of our service providers, manufacturers or other partners would not survive or be able to meet their commitments to us under such circumstances, which could directly affect our ability to attain our operating goals on schedule and on budget.

At December 31, 2024, we had $183.8 million of cash, cash equivalents, and marketable securities. While we are not aware of any downgrades, material losses, or other significant deterioration in the fair value of our cash equivalents or marketable securities since December 31, 2024, no assurance can be given that further deterioration of the global credit and financial markets would not negatively impact our current portfolio of cash equivalents or our ability to meet our financing objectives. Furthermore, our stock price may decline due in part to the volatility of the stock market and general economic downturn.

Risks Related to Managing Our Growth and Operations

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the business, research and development and clinical expertise of our senior management team, key employees and other highly qualified managerial, scientific, and medical personnel. Although we have entered into employment agreements with our executive officers, each of them may terminate their employment with us at any time. The loss of the services provided by any of our senior management team, other key employees and other scientific and medical advisors, and any inability to find suitable replacements, could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. In September 2024, we announced the departures of Fred Schwarzer, President and Chief Executive Officer, Bruce Keyt, Ph.D., Chief Scientific Officer, and Chris H. Takimoto, M.D., Ph.D., F.A.C.P., Chief Medical Officer, and the appointment of Mary Beth Harler, M.D., as our Chief Executive Officer. Our failure to manage this transition could be disruptive to our business and our relationships with employees.

To succeed, we must recruit, retain, manage and motivate qualified personnel, and we face significant competition for experienced personnel. In addition, we will need to expand and effectively manage our managerial, operational, financial, development and other resources to successfully pursue any future research, development and commercialization efforts for our existing and future product candidates. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited talent pool in our industry due to the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Intense competition for attracting key skill sets may limit our ability to retain and motivate these key personnel on acceptable terms.

Many of the other biotechnology companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They also may provide more diverse opportunities and better prospects for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what we have to offer. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition to competition for personnel, the San Francisco Bay Area in particular is characterized by a high cost of living. This high cost of living will increase the difficulty of attracting experienced personnel to our company, and we may be required to expend significant financial resources in our employee recruitment and retention efforts. Additionally, the U.S. has recently experienced historically high levels of inflation and an acute workforce shortage generally, which has created a hyper-competitive wage environment that may increase our operating costs. Any changes in our compensation structure, workforce reductions (including the reductions in force we announced in December 2023 in connection with the 2023 Restructuring (defined below), September 2024 in connection with the 2024 Restructuring, and January 2025 in connection with the 2025 Restructuring), or other cost reduction efforts may be negatively received by employees and result in attrition or recruiting difficulties. Further, following the suspension of our clinical development activities, our ability to retain key personnel is critical to our ability to effectively manage our resources. Moreover, there can be no assurance that any initiatives we take to improve employee retention will be successful in achieving their objectives, including the exchange of employee stock options for new restricted stock units completed in July 2024.

In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We may need to grow our organization, and we may experience difficulty in managing this growth, which could disrupt our operations.

As of December 31, 2024, we had 149 full-time employees. In December 2023, we announced a reduction in our workforce by approximately 22% as part of our 2023 Restructuring. We announced further reductions in our workforce in September 2024 as part of our commitment to the 2024 Restructuring and by approximately 73% in January 2025 as part of our commitment to the 2025 Restructuring. In connection with the 2025 Restructuring, we announced that we are evaluating internal options as well as potential strategic alternatives with the goal of maximizing value for our stockholders. As our development plans and strategies develop, we may again need to expand our employee base for managerial, operational, financial and other resources. Additionally, if our product candidates and discovery programs enter and advance through preclinical studies and any clinical trials, we will need to expand our research, development, manufacturing, regulatory and sales and marketing capabilities or contract with other organizations to provide these capabilities for us. Future growth would impose significant added responsibilities on members of management, including the need to identify, recruit, maintain, motivate and integrate additional employees. Also, our management may need to divert a disproportionate amount of their attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage any future expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational errors, loss of business opportunities, loss of employees and reduced productivity amongst remaining employees. Any future growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of existing and additional product candidates and discovery programs. If our management is unable to effectively manage any future growth, our expenses may increase more than expected, our ability to generate or grow revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our product candidates and compete effectively with others in our industry will depend on our ability to effectively expand our organization and manage any future growth.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or protected health information or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we or our CROs may collect, store, and otherwise process sensitive data, including legally protected health information, personal information, intellectual property and proprietary business information owned or controlled by us. We manage and maintain our applications and data by utilizing a combination of on-site systems, managed data center systems and cloud-based data center systems. These applications and data encompass a wide variety of business-critical information, including research and development information, commercial information and business and financial information. We face multiple risks relative to protecting this critical information, including loss of access risk, inappropriate disclosure risk, inappropriate modification risk and the risk of being unable to adequately monitor our controls over these risks.

The secure storage, maintenance, transmission, and other processing of this critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology and infrastructure and that of any service provider we

may use, whether they rely on our network and systems or their own to render service, may be vulnerable to cybersecurity attacks by hackers or viruses, ransomware or other malicious code, or breaches or incidents due to employee error, or malfeasance, other disruptions, or other causes. While we have not experienced cyber incidents that have been determined to be material in the past, either individually or in the aggregate, we and our third-party providers have experienced cyberattacks in the past. For example, in December 2023, an unidentified actor briefly gained unauthorized access to an employee account. We promptly detected and responded to the incident and terminated the unauthorized access. We engaged cybersecurity and other specialists to assist in the response to the incident. The unauthorized actor did access certain company information, but the incident did not adversely impact our operations.

We and the third parties upon which we rely may be subject to a variety of evolving threats, including but not limited to social-engineering attacks (including through phishing attacks), viruses, worms, and other malicious code, ransomware and other malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks (such as credential stuffing), personnel misconduct or error, ransomware attacks, software bugs, server malfunctions, software or hardware failures, loss, corruption and other unavailability of data or other information technology assets, adware, telecommunications failures, natural disasters, and other similar threats. Geopolitical tensions and conflicts such as the Russia-Ukraine and Israel-Hamas wars may increase the cybersecurity risks faced by us and the third parties on which we rely.

Ransomware attacks, including those perpetrated by organized criminal threat actors, nation-states, and nation-state-supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions in our operations, loss of data and income, reputational harm, and diversion of funds. Extortion payments may reduce or alleviate negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments.

Similarly, supply-chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain or our third-party partners' supply chains have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our information technology systems (including our products/services) or the third-party information technology systems that support us and our services.

Any such breach or interruption could compromise our networks and systems and the information stored there could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such access, disclosure or other loss, unavailability, or other unauthorized processing of information, or the perception that it has occurred, could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, such as the Health Insurance Portability and Accountability Act (HIPAA) as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH), the EU General Data Protection Regulation (EU GDPR) and UK General Data Protection Regulation (UK GDPR), mandatory notification and reporting obligations, additional regulatory oversight, significant regulatory penalties and remediation expenses. There is no guarantee that we can protect our systems from breaches or incidents or the information in or processed by such systems from compromise. Unauthorized access to, or loss, unavailability, corruption, dissemination, or other processing of information or any mechanical failure of our or our third-party service providers' information technology systems could also disrupt our operations, including our ability to conduct our analyses, provide test results, bill payors or providers, process claims and appeals, conduct research and development activities, collect, process and prepare company financial information, provide information about any future products, manage the administrative aspects of our business and damage our reputation, any of which could adversely affect our business. We and the third parties upon which we rely may face difficulties or delays in identifying and responding to any actual or perceived breach or incident. We may be required to expend significant amounts to address security risks, whether in connection with an actual or perceived breach or incident or otherwise.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to privacy, data protection, or data security. We cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy, data protection, or data security practices, that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

We are subject to stringent and changing obligations related to privacy, data protection and security. Our actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse business consequences.

Our data processing activities subject us to numerous obligations relating to privacy, data protection and data security, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contracts, and other obligations that govern the processing of personal data by us and on our behalf. The interpretation and application of consumer, health-related and data

protection laws in the United States, the European Union, and elsewhere are often uncertain, contradictory and in flux. For example, the California Consumer Privacy Act (the CCPA), which went into effect on January 1, 2020, among other things, requires new disclosures to California consumers and affords such consumers new abilities to opt out of certain sales of personal information. The CCPA provides civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation.

The California Privacy Rights Act modified and augmented the CCPA significantly as of January 1, 2023, potentially resulting in further uncertainty and requiring us to incur additional costs and expenses in an effort to comply. In addition, several states within the United States have enacted or proposed data privacy laws, many of which are general privacy statutes similar to the CCPA. For example, Colorado, Connecticut, Delaware, Indiana, Iowa, Kentucky, Maryland, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, Oregon, Rhode Island, Tennessee, Texas, Utah, and Virginia have enacted similar legislation. Although the CCPA and many similar state statutes include exemptions for certain clinical trials data, these laws may increase our compliance costs and potential liability with respect to other personal information we collect or otherwise process. Further, other states have enacted laws that cover certain aspects of the collection, use, disclosure, and/or other processing of health information, such as Washington's My Health, My Data Act, which, among other things, provides a private right of action.

Outside the United States, an increasing number of laws, regulations, and industry standards apply to privacy, data protection and security. For example, the EU GDPR and the UK GDPR impose strict requirements for processing the personal data of individuals. These laws, regulations, and standards can create complex, demanding compliance obligations, and they carry substantial penalties for noncompliance. For example, under the EU GDPR, government regulators may impose temporary or definitive bans on data processing, as well as fines of up to 20 million euros or 4% of annual global revenue, whichever is greater. The UK GDPR has a similar penalty regime. Further, individuals may initiate litigation related to our processing of their personal data. Our efforts to comply with these various laws and regulations could cause us to incur substantial costs or require us to change our business practices and compliance procedures in a manner adverse to our business.

The CCPA, GDPR, and other new and evolving laws, regulations, and industry standards relating to privacy, security, and data protection can provide for obligations that vary significantly among jurisdictions and potentially are far-reaching. Further, because the interpretation and application of many laws and regulations relating to privacy, security, and data protection, along with mandatory industry standards, are uncertain, it is possible that these laws, regulations and standards, or contractual obligations to which we are or may become subject, may be interpreted and applied in a manner that is inconsistent with our existing or future practices. We may be required to modify our relevant policies and practices and to incur substantial costs and expenses in our efforts to comply. Any failure or perceived failure by us to comply with our posted privacy policies, our privacy-related obligations to users or other third parties, or any other legal obligations or regulatory requirements relating to privacy, data protection or data security, may result in governmental investigations or enforcement actions, litigation, claims, or public statements against us or public censure and could result in significant liability, cause harm to our brand and reputation, and otherwise materially and adversely affect our reputation and business.

Furthermore, the loss, corruption, or unavailability 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. Likewise, we rely on other third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business.

Our operations are vulnerable to interruption by catastrophic events, which could harm our business and financial condition.

Our operations, and those of our CROs, clinical trial sites, suppliers, regulators, and other third parties with whom we engage, could be subject to natural disasters, power outages, telecommunications failures, failures or breaches of information technology systems, epidemics, pandemics, and other natural or man-made disasters or business interruptions. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We currently rely on third party manufacturers to produce and process our product candidates. Our ability to obtain clinical supplies of our product candidates could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties with whom we engage, including the suppliers, CROs, clinical trial sites, regulators and other third parties with whom we conduct business, were to experience shutdowns or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted.

All of our operations are located in Mountain View, California and Doylestown, Pennsylvania, with our corporate headquarters in Mountain View, California. Damage or extended periods of interruption to our facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry or other events could cause us to cease or delay development of some or all of our product

candidates. We do not carry sufficient insurance to compensate us for actual losses from interruption of our business that may occur, and any losses or damages incurred by us could harm our business.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the Code), if a corporation undergoes an "ownership change," the corporation's ability to use its net operating losses (NOLs) and other pre-change tax attributes such as research tax credits to offset its post-change taxable income or taxes may be limited. In general, an "ownership change" occurs if there is a cumulative change in our ownership by "5% shareholders" that exceeds 50 percentage points over a rolling three-year period. We completed a Section 382 study in 2020 and determined that we had experienced at least two changes in ownership prior to 2020. We subsequently performed a Section 382 study in 2023, and no further changes in ownership were identified. Consequently, we may be limited in our ability to use our NOL carryforwards and other tax assets in a future year if taxable income in that given year exceeds our cumulative 382 NOL utilization limits through that specific year. As a result, even if we attain profitability, it is possible 382 limitations on the ability to use our NOL carryforwards and other tax assets could adversely affect our future cash flows. In addition, our NOL carryforwards may be unavailable to offset future taxable income because of restrictions under U.S. tax law. The Tax Cuts and Jobs Act of 2017 (Tax Act), as modified by the Coronavirus Aid, Relief, and Economic Security Act, imposes certain limitations on the deduction of NOL carryforwards, including a limitation on use of NOL carryforwards generated in tax years that began on or after January 1, 2018 to offset 80% of taxable income in tax years beginning on or after January 1, 2021. In addition, California has recently enacted a temporary suspension on the use of state NOL carryforwards for certain businesses, which may adversely affect our company if it earns taxable income in the impacted tax years. Other state tax limitations may apply.

Changes in the U.S. taxation of international business activities or the adoption of other tax reform policies could materially impact our business, results of operations and financial condition.

Changes to U.S. tax laws that may be enacted in the future could impact the tax treatment of our foreign earnings. If we expand our international business activities, any changes in the U.S. or foreign taxation of such activities may increase our worldwide effective tax rate and adversely affect our business, results of operations and financial condition. For example, the Organization for Economic Cooperation and Development has proposed implementing a global minimum tax of 15%, referred to as Pillar 2, which has been agreed to by over 136 countries. Pillar 2 has been implemented by the member states of the European Union into national legislation as of the end of 2023 and may be adopted by other jurisdictions. In addition, on January 1, 2022, a provision of the Tax Act went into effect that eliminates the option to deduct domestic research and development costs in the year incurred and instead requires taxpayers to amortize such costs over five years. In 2022, the United States also enacted the IRA, which imposes, among others, a 1% excise tax on certain repurchases of stock and a 15% alternative minimum income tax on "adjusted financial statement income" of certain corporations. Such changes, among others, may adversely affect our effective tax rates, cash flows and general business condition.

Acquisitions or joint ventures could increase our capital requirements, disrupt our business, cause dilution to our stockholders, cause us to incur debt or assume contingent liabilities and otherwise harm our business.

We evaluate various strategic transactions on an ongoing basis. We may acquire other businesses, products or technologies as well as pursue strategic alliances, joint ventures or investments in complementary businesses. Any of these transactions could be material to our financial condition and operating results and expose us to many risks, including:

- disruption in our relationships with any strategic partners or suppliers as a result of such a transaction;
- the assumption of additional indebtedness or contingent or otherwise unanticipated liabilities related to acquired companies;
- the issuance of our equity securities;
- difficulties integrating acquired personnel, technologies and operations into our existing business;
- retention of key employees, the loss of key personnel and uncertainties in our ability to maintain key business relationships;
- diversion of management time and focus from operating our business to management of strategic alliances or joint ventures or acquisition integration challenges;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and marketing approvals;
- increases in our expenses and reductions in our cash available for operations and other uses;
- our inability to generate revenue from acquired technology and/or products sufficient to meet our objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs; and
- possible write-offs or impairment charges relating to acquired businesses.

Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries.

Also, the anticipated benefit of any strategic alliance, joint venture or acquisition may not materialize or such strategic alliance, joint venture or acquisition may be prohibited. Future credit arrangements may restrict our ability to pursue certain mergers, acquisitions, amalgamations or consolidations that we may believe to be in our best interest. Additionally, future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future joint ventures or acquisitions, or the effect that any such transactions might have on our operating results. Moreover, we may not be able to identify suitable acquisition opportunities, and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business.

Adverse events or perceptions affecting the financial services industry could adversely affect our operating results, financial condition and prospects.

Limited liquidity, defaults, non-performance or other adverse developments affecting financial institutions or parties with which we do business, or perceptions regarding these or similar risks, have in the past and may in the future lead to market-wide liquidity problems. Such developments, and their effects on the broader financial system, could result in a variety of material and adverse impacts on our business operations and financial conditions, including, but not limited to:

- delayed access to deposits or other financial assets or the uninsured loss of deposits or other financial assets;
- loss of access to revolving existing credit facilities or other working capital sources or the inability to refund, roll over or extend the maturity of, or enter into new credit facilities or other working capital resources;
- potential or actual breach of obligations, including U.S. federal and state wage laws and contracts that may require us to maintain letters or credit or other credit support arrangements; and
- termination of cash management arrangements or delays in accessing or actual loss of funds subject to cash management arrangements.

In such an event, parties with which we have commercial agreements, including collaboration partners and suppliers, may be unable to satisfy their obligations to, or enter into new commercial arrangements with, us.

Concerns regarding the U.S. or international financial systems could impact the availability and cost of financing, thereby making it more difficult for us to acquire financing on acceptable terms or at all. In addition, instability in the financial services industry could spur a deterioration in the macroeconomic environment.

Any of these risks could materially impact our operating results, liquidity, financial condition and prospects.

Risks Related to Our Dependence on Third Parties

We have in the past and may in the future rely on third parties to manufacture and deliver our product candidates and provide other services. Any failure by one of these third parties to manufacture and deliver acceptable product candidates and provide other services for us pursuant to our specifications and regulatory standards may delay or impair our ability to initiate or complete our future clinical trials, obtain and maintain regulatory approvals or commercialize approved products.

We currently have limited in-house manufacturing experience and personnel. While we have operated a cGMP manufacturing facility for the manufacture of clinical trial drug materials, we have suspended its operations. We expect to rely on third parties to manufacture some or all of any future product candidates. As a result of supply chain constraints and staffing issues at one of our contract manufacturers, we previously adjusted the anticipated filing date of our IND application for one of our former clinical candidates. In addition, we have relied on a third-party contract research organization for the conduct of clinical assays and we have experienced, and may in the future experience, delays and interruptions, as well as quality and design errors, in this supply of information to us. If we are unable to arrange for and maintain such third-party manufacturing and analytical sources that are capable of meeting regulatory standards, or fail to do so on commercially reasonable terms, we may not be able to successfully produce sufficient supply of product candidate or clinical sample analysis data, or we may be delayed in doing so. If we are unable to arrange for and maintain such third-party manufacturing sources that are capable of meeting regulatory standards, or fail to do so on commercially reasonable terms, we may not be able to successfully produce sufficient supply of product candidate or we may be delayed in doing so. A loss of supply of our product candidates or combination agents, for any reason, including as a result of manufacturing, supply or storage issues, damaged shipments, or otherwise, could result in us experiencing further delays, or

disruptions, suspensions or terminations of, or being required to restart or repeat, any future clinical trials. Such failure or substantial delay or loss of supply could materially harm our business.

Reliance on third-party manufacturers entails risks to which we may not be subject if we manufactured product candidates ourselves, including:

- the possible failure of the third party to manufacture our product candidates according to our schedule, or at all, including if our third-party contractors give greater priority to the supply of other products over our product candidates or otherwise do not satisfactorily perform according to the terms of the agreements between us and them;
- reliance on the third party for regulatory compliance and quality control and assurance and failure of the third party to comply with regulatory requirements;
- the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to manufacture our product candidates in accordance with our product specifications);
- the possible mislabeling of clinical supplies, potentially resulting in the wrong dose amounts being supplied or active drug or placebo not being properly identified;
- the possibility of clinical supplies not being delivered to clinical sites on time, leading to clinical trial interruptions, or of drug supplies not being distributed to commercial vendors in a timely manner, resulting in lost sales;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possibility of termination or nonrenewal of the agreement by the third-party at a time that is costly or damaging to us.

In addition, the FDA, EMA and other regulatory authorities require that our product candidates be manufactured according to cGMP and similar foreign standards. Pharmaceutical manufacturers and their subcontractors are required to register their facilities or products manufactured at the time of submission of the marketing application and then annually thereafter with the FDA and certain state and foreign agencies. They are also subject to periodic unannounced inspections by the FDA, state and other foreign authorities. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product 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 marketing approval for or market our product candidates, if approved. Any subsequent discovery of problems with a product, or a manufacturing or laboratory facility used by us or our strategic partners, may result in sanctions being imposed on us, including fines, injunctions, civil penalties, restrictions on the product or on the manufacturing or laboratory facility, including license revocation, marketed product recall, suspension of manufacturing, product seizure, voluntary withdrawal of the product from the market, operating restrictions or criminal prosecutions, any of which could significantly and adversely affect supplies of our product candidates and harm our business and results of operations.

We may have little to no control regarding the occurrence of third-party manufacturer incidents. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, would lead to a delay in, or failure to seek or obtain, regulatory approval of any of our product candidates. Furthermore, any change in manufacturer of our product candidates or approved products, if any, would require new regulatory approvals, which could delay initiation or completion of future clinical trials or disrupt commercial supply of approved products.

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

In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer, we may have difficulty transferring such skills or technology to another third party and a feasible alternative many not exist. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third party manufacture our product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget.

We have in the past and may in the future rely on third parties to monitor, support, conduct and oversee our preclinical studies and clinical trials and, in some cases, to maintain regulatory files for product candidates. We may not be able to obtain regulatory approval for, or commercialize, our product candidates, or we may miss expected deadlines, if we are not able to maintain or

secure agreements with such third parties on acceptable terms, if these third parties do not perform their services as contractually required, or if these third parties fail to timely transfer any regulatory information held by them to us.

We have in the past and may in the future rely on entities outside of our control, which may include academic institutions, CROs, hospitals, clinics and other third-party strategic partners, to monitor, support, conduct and oversee our preclinical studies and clinical trials. As a result, we have less control over the timing and cost of these studies and the ability to recruit trial subjects than if we conducted these trials with our own personnel.

If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated prematurely, we may be unable to enroll patients on a timely basis or otherwise conduct our trials in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our studies or perform as required by our contract or in accordance with regulatory requirements, including maintenance of clinical trial information regarding our product candidates. If these third parties fail to meet expected deadlines, fail to transfer to us any regulatory information in a timely manner, fail to adhere to protocols or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality or accuracy of their activities or the data they obtain, then clinical trials of our product candidates may be extended or delayed with additional costs incurred, or our data may be rejected by the FDA, EMA or other regulatory agencies.

Ultimately, we are responsible for ensuring that each of our preclinical studies and future clinical trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities.

We and our CROs are required to comply with cGCP regulations and guidelines enforced by the FDA, the competent authorities of the member states of the European Union and comparable foreign regulatory authorities for products in clinical development. Regulatory authorities enforce these cGCP regulations through periodic inspections of clinical trial sponsors, principal investigators and clinical trial sites. If we or any of our CROs fail to comply with applicable cGCP regulations, the clinical data generated in future clinical trials may be deemed unreliable and our submission of marketing applications may be delayed or the FDA may require us to perform additional clinical trials before approving our marketing applications. Upon inspection, the FDA could determine that any future clinical trials have failed to comply with applicable cGCP regulations. In addition, our future clinical trials must be conducted with product produced under the cGMP regulations enforced by the FDA, and our future clinical trials may require a large number of test subjects. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process and increase our costs. Moreover, our business may be implicated if any of our CROs violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

If any of our clinical trial sites were to terminate for any reason, we may experience the loss of follow-up information on patients enrolled in our future clinical trials unless we are able to transfer the care of those patients to another qualified clinical trial site. Further, our CROs are not required to work indefinitely or exclusively with us. Our agreements with our CROs may be subject to termination by the counterparty upon the occurrence of certain circumstances. If any CRO terminates its agreement with us, the research and development of the relevant product candidate would be suspended, and our ability to research, develop, and license future product candidates may be impaired. We may be required to devote additional resources to the development of our product candidates or seek a new collaboration partner, and the terms of any additional collaborations or other arrangements that we establish may not be favorable to us.

Switching or adding CROs or other suppliers can involve substantial cost and require extensive management time and focus. In addition, there is a natural transition period when a new CRO or supplier commences work. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

We rely on third parties for various operational and administrative aspects of our business, including for certain cloud-based software platforms, which impact our financial, operational and research activities. If any of these third parties fail to provide timely, accurate and ongoing service or if the technology systems and infrastructure suffer outages that we are unable to mitigate, our business may be adversely affected.

We currently rely upon third party consultants and contractors to provide certain operational and administrative services. These services include tax advice and clinical and research consultation. The failure of any of these third parties to provide accurate and timely service may adversely impact our business operations. In addition, if such third-party service providers were to cease operations, temporarily or permanently, face financial distress or other business disruption, increase their fees or if our relationships with these providers deteriorate, we could suffer increased costs until an equivalent provider could be found, if at all, or we could

develop internal capabilities, if ever. In addition, if we are unsuccessful in choosing or finding high-quality partners, if we fail to negotiate cost-effective relationships with them, or if we ineffectively manage these relationships, it could have an adverse impact on our business and financial performance.

Further, our operations depend on the continuing and efficient operation of our information technology, communications systems and infrastructure, and on "cloud-based" platforms. Any of these systems and infrastructure are vulnerable to damage or interruption from earthquakes, vandalism, sabotage, terrorist attacks, floods, fires, power outages, telecommunications failures, and computer viruses or other deliberate attempts to harm the systems. The occurrence of a natural or intentional disaster, any decision to close a facility we are using without adequate notice, or particularly an unanticipated problem at a cloud-based virtual server facility, could result in harmful interruptions in our service, resulting in adverse effects to our business.

Strategic partnerships may be important to us. We will face significant competition in seeking new strategic partners.

We have limited capabilities for drug development and manufacturing and do not yet have any capability for sales, marketing or distribution. We have in the past and may in the future determine to collaborate with pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. For example, we have entered into a collaboration with Sanofi for the development and potential commercialization of certain therapeutic products. The competition for strategic partners is intense. Our ability to reach a definitive agreement for collaboration will depend, among other things, upon our assessment of the strategic partner's resources and expertise, the terms and conditions of the proposed collaboration and the proposed strategic partner's evaluation of a number of factors. These factors may include the design or results of future clinical trials, the likelihood of approval by the FDA or comparable foreign regulatory authorities, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The strategic partner may also consider alternative product candidates or technologies for similar indications that may be available for collaboration and whether such collaboration could be more attractive than the one with us for our product candidate.

Strategic partnerships are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future strategic partners. Even if we are successful in entering into collaboration, the terms and conditions of that collaboration may restrict us from entering into future agreements with other potential collaborators.

If we are unable to reach agreements with suitable strategic partners on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into strategic partnerships and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our therapeutic platforms and our business may be materially and adversely affected. Any collaboration may be on terms that are not optimal for us, and we may not be able to maintain any new collaboration if, for example, development or approval of a product candidate is delayed, sales of an approved product candidate do not meet expectations or the partner terminates the collaboration. Any such collaboration, or other strategic transaction, may require us to incur non-recurring or other charges, and increase our near- and long-term expenditures and pose significant integration or implementation challenges or disrupt our management or business. Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks and have a material and adverse effect on our business, financial condition, results of operations and prospects. Conversely, any failure to enter any collaboration or other strategic transaction that would be beneficial to us could delay the development and potential commercialization of our product candidates and have a negative impact on the competitiveness of any product candidate that reaches the market.

If we are unable to maintain strategic partnerships, or if these strategic partnerships are not successful, our business could be adversely affected.

Any strategic partnerships we enter into may pose a number of risks, including the following:

- we may not be able to enter into critical strategic partnerships or enter them on favorable terms;
- strategic partners have significant discretion in determining the effort and resources that they will apply to such a partnership, and they may not perform their obligations as agreed or expected;

- strategic partners may decide not to pursue development and commercialization of any product 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 partners' strategic focus (as occurred in April 2024 with respect to the Sanofi Agreement) or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- strategic partners may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- strategic partners could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the strategic partners believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than our product candidates;
- strategic partners may restrict us from researching, developing or commercializing certain products or technologies without their involvement;
- product candidates discovered in collaboration with us may be viewed by our strategic partners as competitive with their own product candidates or products, which may cause strategic partners to cease to devote resources to the commercialization of our product candidates;
- a strategic partner with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product candidates;
- disagreements with strategic partners, including disagreements over proprietary rights, ownership of intellectual property, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- strategic partners may not properly obtain, maintain, enforce or defend our intellectual property or proprietary rights relating to our product candidates or discovery programs or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation or other intellectual property related proceedings;
- strategic partners may own or co-own intellectual property covering our product candidates or discovery programs that results from our collaboration with them, and in such cases, we may not have the exclusive right to commercialize such intellectual property or such product candidates or discovery programs;
- we may need the cooperation of our strategic partners to enforce or defend any intellectual property we contribute to or that arises out of our strategic partnerships, which may not be provided to us;
- strategic partners may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- strategic partners may control certain interactions with regulatory authorities, which may impact our ability to obtain and maintain regulatory approval of our product candidates;
- we may lose certain valuable rights under circumstances identified in our collaborations, including if we undergo a change of control;
- strategic partners may grant sublicenses to our technology or product candidates or undergo a change of control and the sublicensees or new owners may decide to take the collaboration in a direction which is not in our best interest;
- strategic partners may become bankrupt, which may significantly delay our research or development programs, or may cause us to lose access to valuable technology, know-how or intellectual property of the strategic partner relating to our product candidates or discovery programs;
- strategic partnerships may require us to incur short and long-term expenditures, issue securities that dilute our stockholders or disrupt our management and business;
- if our strategic partners do not satisfy their obligations under our agreements with them, or if they terminate our strategic partnerships with them, we may not be able to develop or commercialize product candidates as planned;
- strategic partners may require us to share in development and commercialization costs pursuant to budgets that we do not fully control and our failure to share in such costs could have a detrimental impact on the strategic partnership or our ability to share in revenue generated under the strategic partnership;

- strategic partnerships may be terminated for the convenience of the partner and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates; and
- strategic partnership or collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future strategic partner ours were to be involved in a business combination, the continued pursuit and emphasis on our development or commercialization program under such collaboration could be delayed, diminished, or terminated.

In March 2022, we entered into the Sanofi Agreement, pursuant to which we agreed to collaborate with Sanofi to generate, develop, manufacture and commercialize IgM antibodies directed to six primary targets, three of which were intended as oncology targets and three of which are intended as immunology targets. In April 2024, we announced that the Sanofi Agreement will focus exclusively on immunology targets, with the oncology targets terminated from the agreement.

Risks Related to Our Intellectual Property

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. Other entities may have or may obtain patents or proprietary rights that could limit our ability to make, use, sell, offer for sale or import our future approved products or impair our competitive position.

Our research, development and commercialization activities may be subject to claims that we infringe or otherwise violate patents or other intellectual property rights owned or controlled by third parties. We are aware of third-party patents and patent applications containing claims directed to most of our areas of product development, which patents and applications could potentially be construed to cover our product candidates and the use thereof to treat patients. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that we may be subject to claims of infringement of the patent rights of third parties. There is no assurance that third-party patents or patent applications of which we are aware may not ultimately be found to limit our ability to make, use, sell, offer for sale, or import our future approved products or impair our competitive position, even though we do not believe they are relevant to our business. Patents that we may ultimately be found to infringe could be issued to third parties. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing product candidates using our technology. These patents may not expire before we receive marketing authorization for our future product candidates, and they could delay the commercial launch of one or more future products. If our products were to be found to infringe any such patents, and we were unable to invalidate those patents, or if licenses for them are not available on commercially reasonable terms, or at all, our business, financial condition, and results of operations could be materially harmed. Furthermore, even if a license is available, it may be non-exclusive, which could result in our competitors gaining access to the same intellectual property. Our failure to maintain a license to any technology that we require may also materially harm our business, financial condition, and results of operations, and we would be exposed to a threat of litigation.

In the biotechnology industry, significant litigation and other proceedings regarding patents, patent applications, trademarks and other intellectual property rights have become commonplace both within and outside the United States including patent infringement lawsuits, oppositions, *inter partes* review (IPR) and post-grant review (PGR) proceedings before the United States Patent and Trademark Office (USPTO), or the applicable foreign patent counterpart. The types of situations in which we may become a party to such litigation or proceedings relating to third party intellectual property include:

- we or our licensors may initiate litigation or other proceedings against third parties, including post-grant proceedings such as oppositions, IPRs or PGRs, seeking to invalidate the patents held by those third parties, to obtain a judgment that our products or processes do not infringe those third parties' patents or to obtain a judgment that those parties' patents are invalid and/or unenforceable;
- if our competitors file patent applications that claim technology also claimed by us or our licensors, we or our licensors may be required to participate in derivation or opposition proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third-party with a dominant patent position;
- if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights, we will need to defend against such proceedings; and
- if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate their patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we would need to defend against such proceedings.

These lawsuits would be costly and could affect our results of operations and divert the attention of our management and scientific personnel. Some of our competitors may be able to sustain the cost of such litigation and proceedings more effectively than we can because of their substantially greater resources. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In that event, we may not have a viable alternative to the technology protected by the patent and may need to halt work on the affected product candidate or cease commercialization of an approved product. In addition, there is a risk that a court will order us to pay third party damages or some other monetary award, depending upon the jurisdiction. An adverse outcome in any litigation or other proceeding could subject us to significant liabilities to third parties, potentially including treble damages and attorneys' fees if we are found to have willfully infringed, and we may be required to cease using the technology that is at issue or to license the technology from third parties. We may not be able to obtain any required licenses on commercially acceptable terms or at all. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or administrative proceedings, there is a risk that some of our confidential information could be compromised by disclosure. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise additional funds or on our business, results of operations, financial condition, and prospects. Any of these outcomes could have a material adverse effect on our business.

If we are unable to obtain, maintain and enforce patent and trade secret protection for our product candidates and related technology, our business could be materially harmed.

Our strategy depends on our ability to identify, seek, obtain, and maintain patent protection for our discoveries. Our patent portfolio is relatively small compared to many large and more established pharmaceutical and biotechnology companies that have patent portfolios consisting of hundreds, and in some cases even thousands, of granted patents. We expect patent protection will continue to be an important part of our strategy. The patent protection process is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications, or maintain and enforce patents that may issue from such patent applications, at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents covering technology that we have licensed from third parties. Therefore, our owned, co-owned, or in-licensed patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, patents issue from such applications, and then only to the extent the issued claims cover the technology. The patent applications that we own, or co-own, or in-license may fail to result in issued patents with claims that cover our future product candidates in the United States or in other foreign countries or that effectively prevent third parties from commercializing competitive product candidates.

Moreover, the patent position of biotechnology companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. We may be subject to a third-party pre-issuance submission of prior art to the USPTO or a foreign jurisdiction, and such prior art may affect the scope of any claims that are ultimately allowed or may prevent our patent applications from issuing as patents. Further, the issuance of a patent does not ensure that it is valid or enforceable, nor is the issuance conclusive as to inventorship or the scope of any claims. Third parties may challenge the validity, enforceability or scope of our issued patents or claim that they should be inventors on such patents, and such patents may be narrowed, invalidated, circumvented, or deemed unenforceable, or such third parties may gain rights to such patents. We could also become involved in reexamination, inter-parties review, post-grant review, opposition or derivation proceedings, challenging our patent rights or the patent rights of others. In addition, recent changes in law, such as the U.S. Supreme Court's decision in *Amgen Inc. v. Sanofi*, have introduced changes in the law relevant to biotechnology patents, and future changes in law may further introduce uncertainty in the enforceability or scope of patents owned by biotechnology companies. If our patents are narrowed, invalidated, or held unenforceable, third parties may be able to commercialize our technology or products and compete directly with us without payment to us. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been identified, and such prior art could potentially invalidate one or more of our patents or prevent a patent from issuing from one or more of our pending patent applications. There is also no assurance that there is not prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim in our patents and patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. Furthermore, even if our patents are unchallenged, they may not adequately protect our intellectual property, provide exclusivity for our product candidates, prevent others from designing around our claims, or provide us with a competitive advantage. The legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not allow us to protect our inventions with patents to the same extent as the laws of the United States. Because patent applications in the United States and many foreign jurisdictions are not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in our issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain

inventions. Therefore, the issuance, validity, enforceability, scope, and commercial value of our patents in the United States and in foreign countries cannot be predicted with certainty and, as a result, any patents that we own, co-own, or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection from our pending patent applications, from those we may file in the future, or from those we may license from third parties. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own patented product and practicing our own patented technology.

Moreover, some of our owned or in-licensed patents and patent applications are or 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 patents or patent applications, 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. We may need the cooperation of any such co-owners of our patents to enforce such patents 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 prospects and financial conditions.

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 United States-based companies. Compliance with such regulations may limit our exclusive rights and limit our ability to contract with non-United States manufacturers.

In the future, we may obtain funding, in part, from U.S. federal or state governments for research we conduct, and such funding may be used in the advancement of our existing technologies or creation of additional in-licensed patent rights and technology. Pursuant to the Bayh-Dole Act of 1980, the United States government has certain rights in inventions developed with government funding, including a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. As a result, the U.S. government may have certain rights, including so-called march-in rights, to any future patent rights funded in part by the U.S. federal government and any products or technology developed from such patent rights. 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 to allow third parties to use our licensed technology, 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 can exercise its march-in rights if it determines that action is necessary because we fail to achieve the practical application of 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 may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the U.S. government of such rights could harm our competitive position, business, financial condition, results of operations and prospects.

If we fail to comply with our obligations under any license, collaboration or other intellectual property-related agreements, we may be required to pay damages and could lose intellectual property rights that may be necessary for developing, commercializing and protecting our current or future technologies or product candidates or we could lose certain rights to grant sublicenses.

We in-license certain patent rights and proprietary technology from third parties that are important to our discovery platform and development of product candidates. For example, we have in the past and may in the future in-license certain antibody binding domains, as well as the technology for discovering antibody binding domains, for our discovery and clinical development programs from third parties. Under these license agreements, we are able to research and initially develop discovery programs and are required to make certain annual payments. We also have the option to negotiate or enter into commercial license agreements with these third parties if we elect to continue development or commercialization of any product candidates incorporating the in-licensed antibodies. If we exercise our option to negotiate or enter into any commercial licenses with these third parties, we will likely be subject to various additional obligations, which may include obligations with respect to funding, development and commercialization activities, and payment obligations upon achievement of certain milestones and royalties on product sales.

If any of our licenses or future commercial licenses are terminated or breached, we may:

- lose our rights or options to research, develop or commercialize product candidates covered by the licensed technology;
- not be able to secure patent or trade secret protection for product candidates covered by the licensed technology;
- experience significant delays in the development or commercialization of product candidates covered by the licensed technology;
- not be able to obtain other licenses that may allow us to continue to progress the applicable programs on acceptable terms, if at all; or
- incur liability for damages.

Furthermore, we may not have the right to control the preparation, filing, prosecution, maintenance, enforcement and defense of patents and patent applications that we license from or to third parties. If our licensors and future licensors fail to prosecute, maintain, enforce, and defend patents we may license, or lose rights to licensed patents or patent applications, our license rights may be reduced or eliminated. In such circumstances, our right to develop and commercialize any of our products or product candidates that is the subject of such licensed rights could be materially adversely affected.

Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing, misappropriating, or otherwise violating the licensor's intellectual property rights. In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products if infringement or misappropriation were found, those amounts could be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability.

In addition, the agreements under which we currently license intellectual property or technology from or to 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 intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse impact on our business and ability to achieve profitability. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize any affected product candidates, which could have a material adverse effect on our business and financial conditions.

Our patents covering one or more of our products or product candidates could be found invalid or unenforceable if challenged.

Any of our intellectual property rights could be challenged or invalidated despite measures we take to obtain patent and other intellectual property protection with respect to our product candidates and proprietary technology. For example, if we were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States and in some other jurisdictions, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent intentionally withheld material information from the USPTO, or the applicable foreign counterpart, or made a misleading statement, during prosecution. A litigant or the USPTO itself could challenge our patents on this basis even if we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith. The outcome following such a challenge is unpredictable.

With respect to challenges to the validity of our patents, for example, there might be invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on a product candidate. Even if a defendant does not prevail on a legal assertion of invalidity and/or unenforceability, our patent claims may be construed in a manner that would limit our ability to enforce such claims against the defendant and others. The cost of defending such a challenge, particularly in a foreign jurisdiction, and any resulting loss of patent protection could have a material adverse impact on one or more of our product candidates and our business.

Enforcing our intellectual property rights against third parties may also cause such third parties to file other counterclaims against us, which could be costly to defend, particularly in a foreign jurisdiction, and could require us to pay substantial damages, cease the sale of certain products or enter into a license agreement and pay royalties (which may not be possible on commercially reasonable terms or at all). Any efforts to enforce our intellectual property rights are also likely to be costly and may divert the efforts of our scientific and management personnel.

Our intellectual property rights will not necessarily provide us with competitive advantages.

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. The following examples are illustrative:

- others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of the patents that we own, co-own, or have licensed;
- others may independently develop similar or alternative technologies without infringing our intellectual property rights;

- issued patents that we own, co-own, or may license may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- we may obtain patents for certain compounds many years before we obtain marketing approval for products containing such compounds, and because patents have a limited life, which may begin to run prior to the commercial sale of the related product, the commercial value of our patents may be limited;
- our competitors 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 fail to develop additional proprietary technologies that are patentable;
- the laws of certain foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States, or we may fail to apply for or obtain adequate intellectual property protection in all the jurisdictions in which we operate; and
- the patents of others may have an adverse effect on our business, for example by preventing us from marketing one or more of our product candidates for one or more indications.

Any of the aforementioned threats to our competitive advantage could have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our patents and trade secrets, which could be expensive, time consuming and unsuccessful.

Third parties may seek to market biosimilar versions of any approved products. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our product candidates. In these circumstances, we may need to defend or assert our patents, including by filing lawsuits alleging patent infringement, which may lead to challenges to the validity or enforceability of our patents. The outcome following legal assertions of invalidity and unenforceability is unpredictable. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

Even after they have issued, our patents and any patents that we license may be challenged, narrowed, invalidated, or circumvented. If our patents are invalidated or otherwise limited or will expire prior to the commercialization of our product candidates, other companies may be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

The following are examples of litigation and other adversarial proceedings or disputes that we could become a party to involving our patents or patents licensed to us:

- we may initiate litigation or other proceedings against third parties to enforce our patent and trade secret rights;
- third parties may initiate litigation or other proceedings seeking to invalidate patents owned by, co-owned by, or licensed to us or to obtain a declaratory judgment that their product or technology does not infringe our patents or patents co-owned by us, or licensed to us;
- third parties may initiate opposition, IPR or PGR proceedings challenging the validity or scope of our patent rights, requiring us and/or licensors to participate in such proceedings to defend the validity and scope of our patents;
- there may be a challenge or dispute regarding inventorship or ownership of patents or trade secrets currently identified as being owned by, co-owned, or licensed to us; or
- third parties may seek approval to market biosimilar versions of our future approved products prior to expiration of relevant patents owned by, co-owned by us, or licensed to us, under the Biologics Price Competition and Innovation Act of 2009, requiring us to defend our patents, including by filing lawsuits alleging patent infringement.

These lawsuits and proceedings would be costly and could affect our results of operations and divert the attention of our managerial and scientific personnel. Adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors can. There is a risk that a court or administrative body would decide that our patents are invalid or not infringed or trade secrets not misappropriated by a third party's activities, or that the scope of certain issued claims must be further limited. An adverse outcome in a litigation or proceeding involving our own patents or trade secrets could limit our ability to assert our patents or trade secrets against these or other competitors, affect our ability to receive royalties or other

licensing consideration from our licensees, and may curtail or preclude our ability to exclude third parties from making, using, and selling similar or competitive products. Any of these occurrences could adversely affect our competitive business position, business prospects and financial condition.

We may not be able to prevent, alone or with our licensors, infringement or misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. Any litigation or other proceedings to enforce our intellectual property rights may fail, and even if successful, may result in substantial costs and distract our management and other employees.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have an adverse effect on the price of our common stock.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to develop a platform that is similar to, or better than, ours in a way that is not covered by the claims of our patents;
- others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by patents or pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable; or
- we may not develop additional proprietary technologies that are patentable or that afford meaningful trade secret protection.

Patent terms may be inadequate to protect our competitive position on our product 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 filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned, co-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 protection under the Hatch-Waxman amendments and similar foreign legislation for extending the term of patents covering each of our product candidates, our business may be materially harmed.

Depending upon the timing, duration and conditions of FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. The Hatch-Waxman Act allows a maximum of one patent to be extended per FDA approved product as compensation for the 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 and only those claims covering such approved drug product, a method for using it or a method for manufacturing it may be extended. Patent term extension also may be available in certain foreign countries upon regulatory approval of our product candidates. However, we may not receive an extension if we fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, the period during which we can enforce our patent rights for that product will be shortened and our competitors may obtain approval to market competing products sooner. As a result, our revenue from applicable products could be reduced, possibly materially. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case.

If we are unable to protect the confidentiality of our trade secrets and proprietary information, the value of our technology and products could be adversely affected.

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, and other proprietary information. Trade secrets and know-how can be difficult to protect. Trade secrets and know-how can also in some instances be independently derived or reverse-engineered by a third party. We maintain the confidentiality of trade secrets and proprietary information, in part by entering into confidentiality agreements with our employees, consultants, strategic partners and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees and our personnel policies also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and even when we obtain these agreements, parties with whom we have these agreements may not comply with their terms. Any of the parties to these agreements may breach such agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. We may also become involved in inventorship disputes relating to inventions and patents developed by our employees or consultants under such agreements. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. To the extent that an individual who is not obligated to assign rights in intellectual property to us is rightfully an inventor of intellectual property, we may need to obtain an assignment or a license to that intellectual property from that individual, or a third party or from that individual's assignee. Such assignment or license may not be available on commercially reasonable terms or at all.

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 in the United States and certain foreign jurisdictions are less willing or unwilling to protect trade secrets. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition, and results of operations. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to maintain trade secret protection could adversely affect our competitive business position. In addition, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, or if we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced and our business and competitive position could be harmed. Adequate remedies may not exist in the event of unauthorized use or disclosure of our proprietary information.

We may be subject to claims that we or our employees or consultants have wrongfully used or disclosed alleged trade secrets or other proprietary information of our employees' or consultants' former employers or their clients.

We employ individuals who were previously or concurrently employed at research institutions and/or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our product candidates, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, trade secrets or other proprietary information could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such license may not be available on commercially reasonable terms or at all. A loss of key research personnel or their work product could limit our ability to commercialize, or prevent us from commercializing, our current or future technologies or product candidates, which could materially harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by regulations and governmental 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 governmental fees on patents or applications will be due to the USPTO and various foreign patent offices at various points over the lifetime of our patents or applications. We have systems in place to remind us to pay these fees, and we rely on our outside patent annuity service to pay these fees automatically when due, but we must notify the provider of any new patents or applications. Additionally, the USPTO and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application

process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business.

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

Although we are not currently experiencing any claims challenging the inventorship or ownership of our patents, we may in the future be subject to claims that former employees, strategic partners or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. 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. For example, the assignment of intellectual property rights may not be self-executing, the assignment agreements may be breached, or we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. 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, valuable intellectual property. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Patent protection and patent prosecution for some of our product candidates may be dependent on, and the ability to assert patents and defend them against claims of invalidity may be maintained by, third parties.

The prosecution of certain patent applications and the maintenance and enforcement of certain patents that relate to our product candidates are and may be in the future controlled by our licensors or licensees. Although we may, under such arrangements, have rights to consult with our strategic partners on actions taken as well as back-up rights of prosecution and enforcement, we have in the past and may in the future relinquish rights to prosecute and maintain patents and patent applications within our portfolio as well as the ability to assert such patents against infringers. For example, under our collaboration agreement with Sanofi, in specified circumstances, Sanofi controls the prosecution and enforcement of certain of the patents and patent applications licensed to it.

If any current or future licensee or licensor with rights to prosecute, assert or defend patents related to our product candidates fails to appropriately prosecute and maintain patent protection for patents covering any of our product candidates, or if patents covering any of our product candidates are asserted against infringers or defended against claims of invalidity or unenforceability in a manner which adversely affects such coverage, our ability to develop and commercialize any such product candidate may be adversely affected and we may not be able to prevent competitors from making, using and selling competing products.

Changes in patent laws, patent regulations, or patent jurisprudence could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. Changes in either the patent laws, patent office regulations, or in the interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or found to be enforceable in our patents or in third-party patents. The United States has enacted and is currently implementing wide-ranging patent reform legislation. Additional legislation limiting the value of pharmaceutical and biotechnological patents is pending in Congress. Moreover, the USPTO is seeking to implement regulations that would limit the enforceability of continuation or follow-on patents. Further, recent U.S. Supreme Court and Court of Appeals for the Federal Circuit rulings have either narrowed the scope of patent protection available in certain circumstances or weakened the rights of patent owners in certain situations. In addition to increasing uncertainty regarding our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the validity, scope, and value of patents once obtained.

Depending on decisions by the U.S. Congress, the U.S. federal courts, the USPTO or similar authorities in foreign jurisdictions, the laws and regulations governing patents could change in unpredictable ways that may weaken our and our licensors' ability to obtain new patents or to enforce existing patents we and our licensors or partners may obtain in the future.

Additionally, as of June 1, 2023, existing European patents, and European patent applications, upon grant of a patent, have the option of becoming a Unitary Patent, which will be subject to the jurisdiction of the Unified Patent Court (UPC). During a sunrise period that began on March 1, 2023, European patent owners have the ability to opt out of being subjected to the jurisdiction of the UPC. The option of a Unitary Patent will be a significant change in European patent practice. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation in the UPC.

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

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in 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 inventions in and into the United States or other jurisdictions. Competitors may use our technologies 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 current or future products, if any, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Recent United States Supreme Court cases have narrowed the scope of what is considered patentable subject matter, for example, in the areas of software and diagnostic methods involving the association between treatment outcome and biomarkers. This could impact our ability to patent certain aspects of our technology in the United States.

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 proprietary rights generally. Proceedings to enforce our patent 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 and 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 rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Additionally, the requirements for patentability may differ in certain countries, particularly developing countries. For example, unlike other countries, China has a heightened requirement for patentability, and specifically requires a detailed description of medical uses of a claimed drug. In India, unlike the United States, there is no link between regulatory approval of a drug and its patent status, and patenting of medical uses of a claimed drug are prohibited. In addition to India, certain countries in Europe and developing countries, including China, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we and our licensors may have limited remedies if patents are infringed or if we or our licensors are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own, co-own, or license.

We will need to obtain FDA approval for any proposed product candidate names, and any failure or delay associated with such approval may adversely affect our business.

Any proprietary name or trademark we intend to use for our product candidates will require approval from the FDA regardless of whether we have secured a formal trademark registration from the USPTO. The FDA typically conducts a review of proposed product candidate names, including an evaluation of the potential for confusion with other product names and potential pharmacy dispensing errors. The FDA may also object to a product name if it believes the name inappropriately implies certain medical claims or contributes to an overstatement of efficacy. If the FDA objects to any product candidate names we propose, we may be required to adopt an alternative name for our product candidates. If we adopt an alternative name, we could lose the benefit of any existing trademark applications for such product candidate and may be required to expend significant additional resources in an effort to identify a suitable product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. We may be unable to build a successful brand identity for a new trademark in a timely manner or at all, which would limit our ability to commercialize our product candidates.

Risks Related to Ownership of Our Securities

The market price of our common stock may be volatile, which could result in substantial losses for our securityholders.

The trading price of our common stock may be highly volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- results and timing of our preclinical studies and clinical trials and studies and trials of our competitors' products;
- failure or discontinuation of any of our development programs;

- issues in manufacturing our product candidates or future approved products;
- regulatory developments or enforcement in the United States and foreign countries with respect to our product candidates or our competitors' products;
- competition from existing products or new products that may emerge;
- actual or anticipated changes in our growth rate relative to our competitors;
- developments or disputes concerning patents or other proprietary rights;
- introduction of technological innovations or new commercial products by us or our competitors;
- commencement or termination of collaborations for our programs; for instance, without limitation, our collaboration with Sanofi;
- announcements by us, our strategic partners or our competitors of significant acquisitions, strategic partnerships, joint ventures, or capital commitments;
- actual or anticipated changes in estimates or recommendations by securities analysts, if any cover our common stock;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- public concern over our product candidates or any future approved products;
- litigation;
- future sales of our common stock by us, our insiders or our other stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- additions or departures of key personnel;
- changes in the structure of health care payment systems in the United States or overseas;
- failure of any of our product candidates, if approved, to achieve commercial success;
- economic and other external factors or other disasters, crises or public health emergencies, such as the COVID-19 pandemic;
- period-to-period fluctuations in our financial condition and results of operations, including the timing of receipt of any milestone or other payments under commercialization or licensing agreements;
- announcements or expectations of additional financing efforts;
- general market conditions and market conditions for biotechnology stocks;
- overall fluctuations in U.S. equity markets; and
- other factors that may be unanticipated or out of our control.

The stock market has recently experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stock often does not relate to the operating performance of the companies presented by the stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the issuer of the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit and divert the time and attention of our management, which could seriously harm our business.

An active trading market for our common stock may not continue to be developed or sustained, and as a result it may be difficult for you to sell your shares of our common stock.

Although our common stock is listed on the Nasdaq Global Select Market (Nasdaq), the market for our shares has demonstrated varying levels of trading activity and an active trading market for our common stock may not be sustained. The lack of an active trading market for our common stock may impair investors' ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable, may reduce the market value of their shares, may impair our ability to raise capital to continue to fund our operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

We are controlled by a concentrated group of stockholders, whose interests in our business may conflict with yours.

As of December 31, 2024, stockholders with ownership equal to 5% or more of our outstanding capital stock and their respective affiliates, beneficially owned a majority of the shares of our outstanding capital stock. Accordingly, our principal stockholders will be able to control most matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, including mergers and sales of all or substantially all of our assets. The interests of these principal stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders. For example, our concentration of ownership could have the effect of delaying or preventing a change in control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could cause the market price of our common stock to decline or prevent our stockholders from realizing a premium over the market price for their shares of our common stock.

In addition, pursuant to nominating agreements entered into between us and each of (i) Topsøe Holding A/S, (ii) Baker Brothers Life Sciences L.P. and 667, L.P. (together, Baker Brothers) and (iii) Redmile Biopharma Investments II, L.P., RAF, L.P. and Redmile Strategic Master Fund, LP (together, Redmile), for up to 12 years following the completion of our IPO, so long as Topsøe Holding A/S, Baker Brothers and Redmile, together with their respective affiliates, each beneficially own certain specified amounts of our capital stock, we will have the obligation to support the nomination of, and to cause our board of directors to include in the slate of nominees recommended to our stockholders for election, (i) two individuals designated by Topsøe Holding A/S, (ii) one individual designated by Baker Brothers and (iii) one individual designated by Redmile, subject to certain customary conditions and exceptions. Each of Topsøe Holding A/S, Baker Brothers and Redmile, and their respective affiliates, may therefore have influence over management and control over matters requiring stockholder approval, including the annual election of directors and significant corporate transactions.

The dual class structure of our common stock may limit your ability to influence corporate matters and may limit your visibility with respect to certain transactions.

The dual class structure of our common stock may also limit your ability to influence corporate matters. Holders of our common stock are entitled to one vote per share, while holders of our non-voting common stock are not entitled to any votes. Nonetheless, each share of our non-voting common stock may be converted at any time into one share of our common stock at the option of its holder by providing written notice to us, subject to the limitations provided for in our amended and restated certificate of incorporation as currently in effect. Consequently, if holders of our non-voting common stock exercise their option to make this conversion, this will have the effect of increasing the relative voting power of those prior holders of our non-voting common stock, and correspondingly decreasing the voting power of the holders of our common stock, which may limit your ability to influence corporate matters. Additionally, stockholders who hold, in the aggregate, more than 10% of our common stock and non-voting common stock, but 10% or less of our common stock, and are not otherwise a company insider, may not be required to report changes in their ownership due to transactions in our non-voting common stock pursuant to Section 16(a) of the Exchange Act, and may not be subject to the short-swing profit provisions of Section 16(b) of the Exchange Act.

Sales of substantial amounts of our common stock in the public markets, or the perception that such sales could occur, could cause the market price of our common stock to decline significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. If our stockholders sell, or the market perceives that our stockholders intend to sell, substantial amount of our common stock in the public market, the market price of our common stock could decline significantly. We currently have on file with the SEC an effective shelf registration statement on Form S-3, which allows us to offer debt securities, preferred stock, common stock, non-voting common stock and certain other securities from time to time.

If in the future we issue shares of common stock or securities convertible into common stock, our stockholders would experience dilution and, as a result, the market price of our common stock may decline. We cannot predict the effect that future sales of our securities would have on the market price of our common stock. Additionally, our security holders may be further diluted by the exercise of the pre-funded warrants issued in December 2020 or by any issuance of our voting common stock issuable upon the conversion of issued and outstanding shares of our non-voting common stock.

Certain holders of our common stock (including common stock issuable upon conversion of our non-voting common stock) have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. Registration of these shares under the Securities Act would result in the shares becoming freely tradeable in the public market, subject to the restrictions of Rule 144 in the case of our affiliates. In addition, we filed a registration statement on Form S-8 to register shares of our common stock reserved for future issuance under our equity compensation plans; shares registered under this Form S-8 will be available for sale in the public market

subject to the satisfaction of applicable vesting arrangements and the exercise of such options and, in the case of our affiliates, the restrictions of Rule 144. If any of these additional shares are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish substantial rights.

We may from time to time raise additional capital through the sale of equity or convertible securities, including pursuant to an effective shelf registration statement. If we issue additional shares of common stock at a discount from the current trading price of our common stock, our stockholders would experience immediate dilution upon the purchase of any shares of our common stock sold at such discount. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, preferred stock, common stock, or non-voting common stock.

If in the future we issue shares of common stock or securities convertible into common stock, our stockholders would experience dilution and, as a result, the market price of our common stock may decline. We cannot predict the effect that future sales of our common stock would have on the market price of our common stock. Additionally, our stockholders may be further diluted by the exercise of the pre-funded warrants issued in December 2020 in connection with a financing (see Note 8 – Stockholders' Equity to our financial statements included elsewhere in this Annual Report on Form 10-K for additional information) and any issuance of our voting common stock issuable upon the conversion of shares of non-voting common stock currently outstanding.

Further, if we raise additional capital through the sale of equity or convertible securities, the terms of these new securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available at all, may involve fixed payment obligations or 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 additional funds through partnerships, collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, product candidates, or future revenue streams, or grant licenses on terms that are not favorable to us. We cannot assure you that we will be able to obtain additional funding if and when necessary. If we are unable to obtain adequate financing on a timely basis, we could be required to delay, scale back or eliminate one or more of our clinical or discovery programs or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves. 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.

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

The trading market for our common stock depends on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our common stock, our share price would likely decline. In addition, if one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be significant deficiencies or material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. We have identified deficiencies in the past which we have taken steps to address. However, our efforts to remediate previous deficiencies may not be effective or prevent any future deficiency in our internal control over financial reporting. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

In connection with our ongoing evaluations of internal controls over financial reporting, we have made, and may continue to make upgrades to our finance and accounting systems. If we are unable to accomplish these upgrades in a timely and effective manner, our ability to comply with the financial reporting requirements and other rules that apply to reporting companies could be adversely

impacted. Any failure to maintain effective internal control over financial reporting could have a material adverse effect on our business, financial condition and results of operations and the trading price of our common stock.

As a public company, we are required to disclose material changes made in our internal controls and procedures on a quarterly basis and our management is required to assess the effectiveness of these controls annually. Additionally, we are required to include a formal management assessment of the effectiveness of our internal control over financial reporting in our periodic reports, and once we cease to be a "smaller reporting company" and are classified as an "accelerated filer" or "large accelerated filer," unless another exemption is available, we will be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, for as long as we are a “smaller reporting company” and are not classified as an "accelerated filer" or "large accelerated filer," our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404.

To achieve compliance with Section 404 within the prescribed period, we engage in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and maintain a detailed work plan to assess and document the adequacy of our internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are designed and operating effectively, and continue to implement a continuous reporting and improvement process for internal control over financial reporting.

An independent assessment of the effectiveness of our internal controls could detect problems that our management’s assessment might not. In addition, our independent registered public accounting firm did not perform an evaluation of our internal control over financial reporting as of December 31, 2024, 2023 or 2022 in accordance with the provisions of the Sarbanes-Oxley Act. Had our independent registered public accounting firm performed such an evaluation, control deficiencies may have been identified by management or our independent registered public accounting firm, and those control deficiencies could have also represented one or more material weaknesses. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

We have incurred and will continue to incur significant increased costs as a result of operating as a public company, and our management has devoted and will continue to devote substantial time to corporate governance standards.

As a public company, we have incurred and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company, and these expenses may increase even more now that we ceased to be an “emerging growth company” on December 31, 2024. Our management and other personnel have devoted and will continue to devote a substantial amount of time and incur substantial expense in connection with compliance initiatives. For example, in anticipation of becoming a public company, we adopted additional internal controls and disclosure controls and procedures, retained a transfer agent and adopted an insider trading policy. As a public company, we bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

In addition, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act and the related rules and regulations implemented by the SEC and Nasdaq, have and will continue to increase legal and financial compliance costs and make some compliance activities more time consuming. We cannot predict or estimate the amount of additional costs we may incur to respond to these requirements or the timing of such costs. We have invested and will continue to invest in resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management’s time and attention from our other business activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

Under the corporate governance standards of Nasdaq, a majority of our board of directors and each member of our audit committee must be an independent director. We may encounter difficulty in attracting qualified persons to serve on our board of directors and the audit committee, and our board of directors and management may be required to divert significant time and attention and resources away from our business to identify qualified directors. If we fail to attract and retain the required number of independent directors, we may be subject to the delisting of our common stock from Nasdaq.

We are a smaller reporting company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to smaller reporting companies could make our common stock less attractive to investors.

Although we ceased to be an "emerging growth company," as defined in the JOBS Act, on December 31, 2024, we are also currently a "smaller reporting company" as defined in the Exchange Act. Smaller reporting companies may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not smaller reporting companies, including, among others, not being required to comply with the auditor attestation requirements of Section 404 and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. Additionally, as a smaller reporting company, we are only required to provide two years of audited financial statements in our SEC reports. We will remain a smaller reporting company until the last day of the fiscal year in which (1) the market value of our common stock held by non-affiliates equals or exceeds $250 million as of the prior June 30, or (2) our annual revenues equal or exceed $100 million during such completed fiscal year and the market value of our common stock held by non-affiliates equals or exceeds $700 million as of the prior June 30.

If we take advantage of some or all of the reduced disclosure requirements available to smaller reporting companies, investors may find our common stock less attractive, which may result in a less active trading market for our common stock and greater stock price volatility.

We have never paid and do not anticipate paying cash dividends on our common stock, and accordingly, stockholders must rely on share appreciation for any return on their investment.

We have never paid any dividends on our capital stock. We currently intend to retain our future earnings, if any, to fund the development and growth of our businesses and do not anticipate that we will declare or pay any cash dividends on our capital stock in the foreseeable future. As a result, capital appreciation, if any, will be the sole source of gain on any investment in our common stock for the foreseeable future. Investors seeking cash dividends should not invest in our common stock.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws might discourage, delay, or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay, or prevent a merger, acquisition, or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our charter documents:

- establish that our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered three-year terms;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may only be removed for cause;
- eliminate cumulative voting in the election of directors;
- authorize our board of directors to issue shares of convertible preferred stock and determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- provide our board of directors with the exclusive right to elect a director to fill a vacancy or newly created directorship;
- permit stockholders to only take actions at a duly called annual or special meeting and not by written consent;
- prohibit stockholders from calling a special meeting of stockholders;
- require that stockholders give advance notice to nominate directors or submit proposals for consideration at stockholder meetings;
- authorize our board of directors, by a majority vote, to amend the bylaws; and
- require the affirmative vote of at least 66 2/3% or more of the outstanding shares of common stock to amend many of the provisions described above.

In addition, Section 203 of the General Corporation Law of the State of Delaware (the DGCL) prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its

affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws, or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our common stock.

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware and the federal district courts of the United States are the exclusive forums 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 bylaws provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court in Delaware or the federal district court for the District of Delaware) is the exclusive forum for the following (except for certain claims as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court):

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of fiduciary duty owed by any of our directors, stockholders, officers or other employees to us or our stockholders;
- any action asserting a claim against us arising under the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

This exclusive forum provision will not apply to any causes of action arising under the Exchange Act or any successor thereto. Our amended and restated bylaws further provide that the federal district courts of the United States will be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act against any person in connection with any offering of our securities. These exclusive-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 lawsuits against us and our directors, officers and other employees. Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. It is possible that a court could find these types of provisions to be inapplicable or unenforceable, and if a court were to find either exclusive-forum provision in our amended and restated bylaws to be inapplicable or unenforceable in any action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Risks Management and Strategy

We have established policies and processes for assessing, identifying, and managing material risk from cybersecurity threats, and have integrated these processes into our overall risk management systems and processes. We periodically assess material risks from cybersecurity threats, including any potential unauthorized occurrence on or conducted through our information systems that may result in adverse effects on the confidentiality, integrity, or availability of our information systems or any information residing therein.

We conduct annual risk assessments and perform as needed updates to our risk register to identify cybersecurity threats, as well as assessments in the event of a material change in our business practices that may affect information systems that are vulnerable to such cybersecurity threats. These risk assessments include identification of reasonably foreseeable internal and external risks, the likelihood and potential damage that could result from such risks, and the sufficiency of existing policies, procedures, systems, and safeguards in place to manage such risks.

Following these risk assessments, we re-design, implement, and maintain reasonable safeguards to minimize identified risks; reasonably address any identified gaps in existing safeguards; and regularly monitor the effectiveness of our safeguards. We devote significant resources and designate high-level personnel, including our Head of Information Technology (IT), who is also our Senior Vice President (SVP) of Group Operations and reports to our Chief Financial Officer (CFO), to manage the risk assessment and mitigation process.

As part of our overall risk management system, we monitor and test our safeguards and train our employees on these safeguards, in collaboration with Legal, Human Resources and IT. Personnel at all levels and departments are made aware of our cybersecurity policies through periodic training and company-wide communications.

We engage an experienced cybersecurity consultant as our Interim Information Security Advisor who coordinates our risk assessment processes with our Cybersecurity Steering Committee. We engage an experienced service provider as our 24x7 network and security operations center, to assist us to design and implement our cybersecurity policies and procedures, and to monitor and test our safeguards.

We assess the ability of our key third-party service providers to implement and maintain appropriate security measures, consistent with all applicable laws, to implement and maintain reasonable security measures in connection with their work with us, and to promptly report any suspected breach of its security measures that may affect our company.

For additional information regarding whether any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect our company, including our business strategy, results of operations, or financial condition, please refer to Item 1A, “Risk Factors,” in this annual report on Form 10-K.

Governance

One of the key functions of the Audit Committee of our Board of Directors is informed oversight of our risk management process, including risks from cybersecurity threats. Our Audit Committee is responsible for monitoring and assessing strategic risk exposure, and our executive officers are responsible for the day-to-day management of the material risks we face.

Our SVP of Group Operations and our Cybersecurity Steering Committee, which includes a cross-functional leadership team, are primarily responsible for assessing and managing our material risks from cybersecurity threats. As part of our risk identification, assessment, and mitigation activities, we leverage the experience of our external cybersecurity advisor/consultant (CISSP, CISA, CISM, CRISC, QSA) who has extensive cybersecurity expertise across various industries. Our SVP of Group Operations, who manages our cybersecurity program, has over 25 years of experience in the Life-Sciences IT space, with over 8 years in IT security and cybersecurity functions.

Our SVP of Group Operations, in collaboration with our Cybersecurity Steering Committee, oversees our cybersecurity policies and processes, including those described in “Risk Management and Strategy” above. Our SVP of Group Operations is informed about and monitors the prevention, detection, mitigation, and remediation of cybersecurity incidents through oversight of the external consultant and the IT department, which includes oversight of a combination of automated technologies and manual responses to detect, respond and recover from any cybersecurity incident, as well as oversight of the 24x7 network and security operations center. Our SVP of Group Operations is responsible for informing our executive leadership and our Audit Committee about confirmed cybersecurity incidents, and for providing regular updates to senior executive management, including our CFO, concerning our IT and cybersecurity posture.

Our SVP of Group Operations provides quarterly briefings to the audit committee and our executive management regarding our company’s cybersecurity risks and activities, including any recent cybersecurity incidents and related responses, cybersecurity systems testing, activities of third parties, and the like.

Item 2. Properties.

We lease approximately 95,900 square feet of office, laboratory and manufacturing space in Mountain View, California and office and laboratory space in Doylestown, PA. These leases have expiration dates ranging from December 2025 through June 2032. We believe that our facilities are adequate to meet our needs for the immediate future, and that, should it be needed, suitable additional space will be available on commercially reasonable terms to accommodate any such expansion of our operations.

Item 3. Legal Proceedings.

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. We are not currently a party to any material legal proceedings. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity, reputational harm and other factors.

Item 4. Mine Safety Disclosures.

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information for Our Common Stock

Our common stock has been listed on the Nasdaq Global Select Market under the symbol "IGMS" since September 18, 2019. Prior to that date, there was no public trading market for our common stock.

Holders of Record

As of February 28, 2025, there were 7 holders of record of our common stock and 12 holders of record of our non-voting common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees.

Dividend Policy

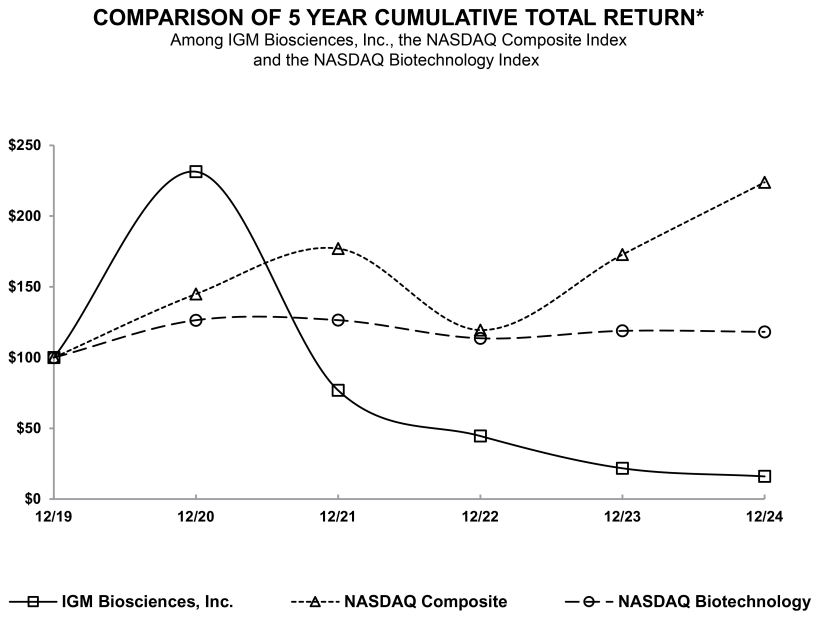
We have never declared or paid cash dividends on our capital stock to investors. We currently intend to retain all available funds and any future earnings to support operations and to finance the growth and development of our business. We do not intend to declare or pay any cash dividends on our capital stock in the foreseeable future. Any future determination to pay dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. Our future ability to pay cash dividends on our capital stock may be limited by the terms of any future debt or preferred securities.

Stock Performance Graph

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act, except to the extent that we specifically incorporate this information by reference therein, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The following graph compares the cumulative total return to stockholder return on our common stock relative to the cumulative total returns of the Nasdaq Composite Index and the Nasdaq Biotechnology Index. An investment of $100 is assumed to have been made in our common stock and each index on December 31, 2019 and its relative performance is tracked through December 31, 2024. Pursuant to applicable SEC rules, all values assume reinvestment of the full amount of all dividends; however no dividends have been

declared on our common stock to date. The stockholder returns shown on the graph below are based on historical results and are not indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.



*$100 invested on 12/31/19 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Unregistered Sales of Equity Securities

Other than as previously reported on our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, there have been no unregistered sales of equity securities for the current reporting period.

Use of Proceeds from Public Offering of Common Stock

Not applicable.

Issuer Purchases of Equity Securities

None.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Annual Report on Form 10-K, our actual results could differ materially from the results described in or implied by, these forward-looking statements.

Overview

We are a biotechnology company that has historically been focused on the development of IgM antibodies for the treatment of cancer and autoimmune and inflammatory diseases. IgM antibodies have inherent properties that we believe may enable them to bind more strongly to targets on the surface of cells than comparable IgG antibodies.

We have created a portfolio of patents and patent applications, know-how and trade secrets directed to our platform technology, and we retain worldwide commercial rights to all of our product candidates, other than those being developed in partnership with Sanofi and the intellectual property related thereto. We have an ongoing collaboration and license agreement with Sanofi, to generate and develop IgM antibodies for three immunology targets.

In September 2024, we announced the 2024 Restructuring. Further, in January 2025, we announced the 2025 Restructuring. We also announced we are evaluating internal options as well as potential strategic alternatives with the goal of maximizing value for our stockholders.

Since the commencement of our operations, we have focused substantially all of our resources on conducting research and development activities, including drug discovery, preclinical studies and clinical trials, establishing and maintaining our intellectual property portfolio, the manufacturing of clinical and research material, developing our in-house manufacturing capabilities, hiring personnel, raising capital and providing general and administrative support for these operations. Since 2010, such activities have primarily focused on the research, development and manufacture of IgM antibodies and to building our proprietary IgM antibody technology platform. We do not have any products approved for sale, and we have not generated any revenue from product sales.

We have incurred significant net losses to date. Our ability to generate product revenue sufficient to achieve profitability will depend on the successful development and eventual commercialization of one or more of our current or future product candidates. Our net losses were $195.8 million, $246.4 million, and $221.1 million for the years ended December 31, 2024, 2023 and 2022, respectively. As of December 31, 2024, we had an accumulated deficit of $1.0 billion. These losses have resulted primarily from costs incurred in connection with research and development activities and general and administrative costs associated with our operations. We expect to continue to incur significant expenses and operating losses for the foreseeable future, and our net losses may fluctuate significantly from period to period, depending on the timing of and expenditures on our planned research and development activities.

We expect our expenses and capital requirements to fluctuate in connection with our ongoing activities if and as we:

- complete the 2025 Restructuring and 2024 Restructuring;
- advance the development of our product candidates;
- maintain, protect and expand our intellectual property portfolio, including patents, trade secrets and know-how;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- establish a sales, marketing, and distribution infrastructure to commercialize any product candidate for which we may obtain marketing approval;
- implement operational, financial and management information systems; and
- attract, hire and retain additional clinical, scientific, management and administrative personnel.

We plan to continue to use third-party service providers, including contract research organizations (CROs) and contract manufacturing organizations (CMOs), to carry out preclinical and clinical development and manufacture and supply some of our preclinical and clinical materials to be used during the development of our product candidates.

Since inception, we have funded our operations primarily from the sale of voting and non-voting common stock and pre-funded warrants in our public offerings and a private placement, the sale of convertible preferred stock and the issuance of unsecured promissory notes in private placements, and payments from our collaboration partners.

Components of Results of Operations

Revenue

We have recognized collaboration revenue pursuant to the Sanofi Agreement and expect to continue to recognize revenue in the future to the extent we satisfy our performance obligations under the Sanofi Agreement, including the generation, development, manufacturing and commercialization of IgM antibodies. We may also be entitled to receive payments pursuant to the Sanofi Agreement upon achievement of specified development, regulatory and commercial milestones, which will cause us to recognize additional revenue. As the recognition of future collaboration revenue will be based on costs incurred to date relative to total estimated costs at completion and the uncertainty of when the events underlying various milestones or target terminations are resolved, we expect our collaboration revenue will fluctuate from period to period.

To date, we have not generated any revenue from the sale of products and do not expect to generate any revenue from the sale of products in the near future.

Operating Expenses

Research and Development

Research and development expenses consist primarily of costs incurred for the discovery and development of product candidates, which include:

Direct expenses consisting of:

- Fees paid to third parties such as consultants, contractors and CROs, for conducting clinical trials, and other costs related to preclinical and clinical testing;
- Costs related to acquiring and manufacturing research and clinical trial materials, including under agreements with third parties such as CMOs and other vendors;
- Costs related to the preparation of regulatory submissions;
- Expenses related to laboratory supplies and services; and
- Fees under license agreements where no alternative future use exists.

Indirect expenses consisting of:

- Personnel expenses, including salaries, benefits and stock-based compensation expense, for personnel in our research and development functions; and
- Depreciation of equipment and facilities expenses.

We expense research and development costs in the periods in which they are incurred. Nonrefundable advance payments for goods or services to be received in future periods for use in research and development activities are deferred and capitalized. The capitalized amounts are then expensed as the related goods are delivered and as services are performed. All direct research and development expenses are tracked by stage of development. We do not track our indirect research and development costs by product candidate or program.

We expect our research and development expenses to fluctuate for the foreseeable future as we conduct activities under the Sanofi Agreement, implement our plan under the 2025 Restructuring and 2024 Restructuring announced in January 2025 and September 2024, respectively, evaluate our internal options and evaluate strategic alternatives with the goal of maximizing value for our stockholders. The process of conducting the necessary preclinical and clinical research to obtain regulatory approval is costly and time-consuming. To the extent that we initiate new clinical development activities for our product candidates, our expenses will increase and may become more variable. The actual probability of success for our product candidates may be affected by a variety of factors, including the safety and efficacy of our product candidates, investment in our clinical programs, manufacturing capability and competition with other products. As a result of these variables, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of product candidates. We may never succeed in achieving regulatory approval for any product candidates.

General and Administrative

Our general and administrative expenses consist primarily of personnel expenses for our executive, finance, corporate and other administrative functions, intellectual property, facilities and other allocated expenses, other expenses for outside professional services, including legal, human resources, audit and accounting services, and insurance costs. Personnel expenses consist of salaries, benefits, recruiting costs, and stock-based compensation. We expect our general and administrative expenses to fluctuate for the foreseeable future. If we are successful with the development of our product candidates, we expect our general and administrative expenses to increase to support our continued and expanding research and development activities and increased costs of operating as a public company, including compliance with the rules and regulations of the Securities and Exchange Commission (SEC) and those of any national securities exchange on which our securities are traded, legal, auditing, additional insurance expenses, investor relations activities and other administrative and professional services.

Interest Income

Interest income includes interest income earned on our cash, cash equivalents, marketable securities, and restricted cash and non-cash interest income related to the accretion of discounts on marketable securities.

Results of Operations

A discussion and analysis of our financial condition and results of operations for the year ended December 31, 2022, is included in Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 7, 2024.

The following table summarizes our results of operations for the years ended December 31, 2024 and 2023, together with the changes in those items in dollars:

Comparison of the Years Ended December 31, 2024 and 2023

	Year Ended December 31,		
(in thousands)	2024	2023	Change
Collaboration revenue	$ 2,679	$ 2,130	$ 549
Operating expenses:			
Research and development	160,854	215,519	(54,665)
General and administrative	50,405	50,072	333
Total operating expenses	211,259	265,591	(54,332)
Loss from operations	(208,580)	(263,461)	54,881
Other income (expense)			
Interest income	12,785	17,743	(4,958)
Other expense	—	(20)	20
Total other income (expense)	12,785	17,723	(4,938)
Loss before income tax expense	(195,795)	(245,738)	49,943
Income tax expense	—	(678)	678
Net loss	$ (195,795)	$ (246,416)	$ 50,621

Collaboration Revenue

Collaboration revenue was $2.7 million and $2.1 million for the years ended December 31, 2024 and 2023, respectively, and relates solely to revenue generated from the Sanofi Agreement. The increase of $0.5 million is primarily attributable to the cumulative catch-up adjustment of $0.8 million related to Sanofi exercising its right to terminate the oncology collaboration targets and focus exclusively on immunology targets. Please refer to Note – 9 Sanofi Agreement, to the financial statements included elsewhere in this Annual Report on Form 10-K for additional revenue recognition disclosures.

Research and Development Expenses

The following table summarizes our research and development expenses incurred during the periods indicated:

(in thousands)	Year Ended December 31, 2024	2023	Change
Direct expenses			
Deprioritized clinical programs [1]			
Imvotamab – Autoimmune programs	$ 15,750	$ 9,415	$ 6,335
Aplitabart	28,869	34,766	(5,897)
Other deprioritized clinical programs	5,193	21,491	(16,298)
Total deprioritized clinical programs	49,812	65,672	(15,860)
Preclinical and other R&D	24,856	38,052	(13,196)
Indirect expenses			
Personnel	61,616	87,553	(25,937)
Depreciation and facilities	24,570	24,242	328
Total research and development expenses	$ 160,854	$ 215,519	$ (54,665)

[1] The years ended December 31, 2024 and 2023 include direct expenses related to our deprioritized clinical programs and any related preclinical costs prior to trial initiation.

Research and development expenses were $160.9 million and $215.5 million for the years ended December 31, 2024 and 2023, respectively. The decrease of $54.7 million was primarily driven by lower personnel, deprioritized clinical program and preclinical expenses, partially offset by higher depreciation and facilities expenses.

- Deprioritized clinical program expenses decreased by $15.9 million, primarily driven by the wind down of aplitabart and other deprioritized programs, including imvotamab in oncology, IGM-7354, and IGM-2644 in oncology, partially offset by the advancement of Phase 1 clinical trials for imvotamab in autoimmune diseases prior to the 2025 Restructuring.
- Preclinical and other R&D expenses decreased by $13.2 million, primarily driven by a decrease in research related activities and professional services as a result of the 2023 Restructuring and the 2024 Restructuring.
- Personnel expenses decreased by $25.9 million, primarily due to the effect of the 2023 Restructuring and the 2024 Restructuring.
- Depreciation and facilities expenses increased by $0.3 million, primarily due to additional equipment and infrastructure.

General and Administrative Expenses

General and administrative expenses were $50.4 million and $50.1 million for the years ended December 31, 2024 and 2023, respectively. The increase of $0.3 million was primarily driven by higher stock based-compensation expense resulting from the modification of certain equity awards due to the 2024 Restructuring partially offset by lower professional services as a result of the 2023 Restructuring and the 2024 Restructuring.

Interest Income

Interest income was $12.8 million and $17.7 million for the years ended December 31, 2024 and 2023, respectively. The decrease of $5.0 million was primarily due to lower invested capital during year ended December 31, 2024.

Liquidity and Capital Resources

Sources of Liquidity

We are a biotechnology company with limited operating history, and due to our significant research and development expenditures, we have generated operating losses since our inception and have not generated any revenue from the sale of any products. We expect to continue incurring significant expenses and operating losses for the foreseeable future as we conduct activities under the Sanofi Agreement, evaluate our internal options and evaluate potential strategic alternatives with the goal of maximizing value for our stockholders.

Since our inception and through December 31, 2024, we have funded our operations primarily through the sale of common stock and pre-funded warrants in our public offerings and private placement, the sale of convertible preferred stock and the issuance of unsecured promissory notes in private placements, and payments from our collaboration partners. We maintain a shelf registration

statement with the SEC for the potential offering, issuance and sale by us of our common stock, non-voting common stock, debt securities, preferred stock, and certain other securities from time to time in one or more offerings.

As of December 31, 2024, we had cash, cash equivalents, and marketable securities of $183.8 million and an accumulated deficit of $1.0 billion. Our material cash requirements include our operating expenses, which consist primarily of research and development expenditures related to our programs and related personnel costs, as well as our operating leases.

We believe that our cash, cash equivalents, and marketable securities will be sufficient to fund our planned operations for at least one year past the issuance date of the financial statements appearing elsewhere in this Annual Report on Form 10-K. Our assessment of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves numerous risks and uncertainties.

Future Funding Requirements

We will require additional funding in order to develop and commercialize product candidates, if any. We may seek to raise any necessary additional capital through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. The timing and amount of our future funding requirements depends on many factors, including the following:

- the initiation, scope, rate of progress, results and cost of our preclinical studies, future clinical trials and other related activities for our product candidates;
- the costs associated with manufacturing our product candidates and establishing commercial supplies and sales, marketing and distribution capabilities;
- the timing and cost of capital expenditures to support our research, development and manufacturing efforts;
- the number and characteristics of other product candidates that we pursue;
- the costs, timing and outcome of seeking and obtaining U.S. Food and Drug Administration (FDA) and non-U.S. regulatory approvals;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;
- the timing, receipt and amount of sales from our potential products;
- our need and ability to hire additional management, scientific and medical personnel;
- the effect of competing products that may limit market penetration of our product candidates;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- the economic and other terms, timing and success of any collaboration, licensing, or other arrangements to which we are a party or into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under these agreements;
- the impact of macroeconomic conditions, including inflation, supply chain disruptions and volatility in the capital markets, on our business, financial condition and results of operations;
- the compliance and administrative costs associated with being a public company; and
- the extent to which we acquire or invest in businesses, products or technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

If we require additional financing, we may not be able to obtain such financing on acceptable terms, or at all. If we raise additional capital by issuing equity or equity-linked securities, our stockholders may experience dilution, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. If we raise additional capital through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, future revenue streams or research programs or grant licenses on terms that may not be favorable to us. Failure to raise sufficient capital when needed or generate sufficient cash flow from operations, would impact our ability to pursue our business strategies and could require us to delay, scale back or discontinue one or more of our product development programs, or other aspects of our business objectives.

Cash Flows

A discussion and analysis of our financial condition and cash flows for the year ended December 31, 2022 is included in Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 7, 2024.

The following table summarizes our cash flows for the periods indicated:

(in thousands)	Year Ended December 31, 2024	2023
Net cash, cash equivalents, and restricted cash (used in) provided by:		
Operating activities	$ (152,996)	$ (192,231)
Investing activities	64,158	68,355
Financing activities	2,388	115,068
Net decrease in cash, cash equivalents, and restricted cash	$ (86,450)	$ (8,808)

Cash Used in Operating Activities

For the year ended December 31, 2024, net cash used in operating activities was $153.0 million, which consisted primarily of a net loss of $195.8 million and a net change of $7.1 million in net operating assets and liabilities, partially offset by a net change of $49.9 million in non-cash charges. The net change in our operating assets and liabilities was primarily due to a decrease in net liabilities of $8.3 million due to lease payments, recognizing revenue from providing research and development services under the Sanofi Agreement and payments related to clinical trials. The non-cash charges primarily consisted of stock-based compensation expense of $38.3 million, depreciation expense of $9.1 million, lease expense of $5.3 million, partially offset by net discounts purchased and accretion on marketable securities of $2.8 million.

For the year ended December 31, 2023, net cash used in operating activities was $192.2 million, which consisted primarily of a net loss of $246.4 million and a net change of $6.7 million in net operating assets and liabilities, partially offset by a net change of $60.9 million in non-cash charges. The net change in our operating assets and liabilities was primarily due to a decrease in net liabilities of $8.6 million due to payments related to clinical trials, manufacturing, and lease liabilities, and the recognition of deferred revenue. The non-cash charges primarily consisted of stock-based compensation expense of $46.5 million, depreciation expense of $8.3 million, lease expense of $5.4 million, and net discounts purchased and accretion on marketable securities of $0.3 million.

Cash Provided by Investing Activities

For the year ended December 31, 2024, net cash provided by investing activities was $64.2 million, which consisted of $289.4 million in maturities and sales of marketable securities, partially offset by $219.4 million in purchases of marketable securities and $5.8 million in purchases of property, plant, and equipment.

For the year ended December 31, 2023, net cash provided by investing activities was $68.4 million, which consisted of $445.8 million in maturities and sales of marketable securities, partially offset by $365.0 million in purchases of marketable securities and $12.4 million in purchases of property, plant, and equipment.

Cash Provided by Financing Activities

For the year ended December 31, 2024, net cash provided by financing activities was $2.4 million, which consisted primarily of $1.5 million in proceeds from the exercise of stock options and $0.9 million in proceeds from purchases under the employee stock purchase plan.

For the year ended December 31, 2023, net cash provided by financing activities was $115.1 million, which consisted of $113.6 million in proceeds from the issuance of common stock in a public offering and concurrent private placement, net of payments of offering costs, $1.4 million in proceeds from purchases under the employee stock purchase plan, and $0.1 million due to proceeds from the exercise of stock options.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and other commitments as of December 31, 2024:

	Payments Due by Period				
(in thousands)	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years	Total
Contractual obligations:					
Operating lease obligations	$ 7,759	$ 14,840	$ 14,840	$ 19,356	$ 56,795

We have entered into leases for offices, laboratory, and manufacturing facilities in Mountain View, California, which includes our headquarters and main offices. Additionally, we have entered into a lease for office and laboratory space in Doylestown, Pennsylvania. As of December 31, 2024, future minimum lease commitments under these leases were $56.8 million.

In addition, we have entered into agreements in the normal course of business with CROs, CMOs and other vendors for research and development services for operating purposes, which are generally cancelable upon written notice.

For product candidates that are currently in various research and development stages, we may be obligated to make up to $361.9 million of future development, regulatory, and commercial milestone and royalty payments associated with the optioned technologies in our license agreements. Payments under these agreements generally become due and payable upon achievement of certain milestones. The achievement of these milestones was not probable and payment was not required as of December 31, 2024, as such, contingencies have not been recorded in our financial statements. Amounts related to contingent milestone payments are not yet considered contractual obligations as they are contingent on the successful achievement of certain milestones. See Note 7 – License Agreements to our financial statements included elsewhere in this Annual Report on Form 10-K.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Recently Issued and Adopted Accounting Pronouncements

Please refer to Note 2 – Summary of Significant Accounting Policies to the financial statements included elsewhere in this Annual Report on Form 10-K for additional disclosures around recently issued and adopted accounting pronouncements.

Critical Accounting Policies and Use of Estimates

Our financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. Our estimates are based on our historical experience 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 value of assets, liabilities, and equity and the amount of revenues and expenses, which are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

While our significant accounting policies are described in the notes to our financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following critical accounting policies are most important to understanding and evaluating our reported financial results.

Revenue Recognition

We enter into license agreements related to our technologies that we have determined are within the scope of Accounting Standards Codification (ASC) 606. Based on the terms and conditions of our agreements, we identify the goods and services that we promise to transfer to the customer, which may consist of the licensing of technologies, the performance of research and development activities, and/or the supply of products related to our technologies. Based on the nature of the goods and services provided and the customer's intended benefit of the arrangement, we evaluate which of the promised goods and services are distinct and, therefore, represent a performance obligation, which may require us to combine certain promised goods and services that are determined to not be distinct from one another. We also evaluate whether an agreement provides the customer an option to purchase future goods or services at a discounted price, or a material right, which would also represent a performance obligation.

In exchange for the performance obligations, we estimate the amount of consideration promised by the customer, or the transaction price, which may include both fixed and variable consideration. Variable consideration may consist of various milestone payments based upon the achievement of certain events or conditions, sales-based royalties, or payments contingent on the performance of research and development services. If an arrangement includes development, regulatory, or commercial milestone payments, we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. We include the amount of estimated variable consideration, including milestones, in the transaction price to the extent that it is probable that a significant reversal of cumulative revenue recognized will not occur. Sales-based royalty and milestone payments that we determine are predominately related to the license or our intellectual property are excluded from the transaction price we expect to receive until the underlying sales occur.

We allocate the estimated transaction price to the identified performance obligations based on the relative estimated Stand-alone Selling Price (SSP) of each performance obligation using objective evidence if it is available. If SSP is not directly observable, we estimate the SSP using other assumptions and methods such as the expected cost-plus margin approach with estimated inputs of forecasted costs, development timelines and scenarios, probability of target failures and selection of substitute targets, and program-specific factors.

We recognize revenue allocated to each performance obligation when, or as, we satisfy a performance obligation. Revenue is recognized over time by measuring the progress toward complete satisfaction of the relevant performance obligation using an appropriate input or output method, which may be based on factors such as internal personnel costs and third-party contract expenses, among other measures based on the nature of the good or service promised to the customer. The estimates made on an input or output method are subject to change and may result in material changes to revenue that could materially affect our results of operations. Changes to the price and/or scope of our collaboration arrangements, such as an increase or decrease in the number of targets, are assessed for whether they represent a modification or should be accounted for as a new contract.

Accrued Research and Development Expenses

We record accruals for estimated costs associated with research, preclinical studies, clinical trials, and manufacturing, which are significant components of research and development expenses. A substantial portion of our ongoing research and development activities is conducted by third-party service providers, CROs and CMOs. We accrue for costs resulting from agreements with CROs, CMOs, and other outside service providers for which payment flows do not match the periods over which the materials or services are provided to us. The costs accrued are based on estimates of actual work completed. Estimates are determined through discussions with internal personnel and external service providers as to the progress, or stage of completion or actual timeline (start-date and end-date) of the services and the agreed-upon fees to be paid for such services. In the event we make advanced payments, the payments are recorded as a prepaid expense and recognized as the services are performed.

We make significant judgments and estimates in determining the accrual balance in each reporting period. As actual costs become known, we adjust our accruals. Variations in the assumptions used to estimate accruals including, but not limited to, the number of patients enrolled, the rate of patient enrollment and the actual services performed, may vary from our estimates, resulting in adjustments to clinical trial expenses in future periods. Changes in these estimates that result in material changes to our accruals could materially affect our financial condition and results of operations.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

As a "smaller reporting company," as defined by Rule 12b-2 of the Exchange Act, and pursuant to Item 305 of Regulation S-K we are not required to provide quantitative and qualitative disclosures about market risk.

Item 8. Financial Statements and Supplementary Data.

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of IGM Biosciences, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of IGM Biosciences, Inc. (the "Company") as of December 31, 2024 and 2023, the related statements of operations, comprehensive loss, stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2024, 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 as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

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. 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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – Estimated Costs to Complete – Sanofi Agreement – Refer to Notes 2 and Note 9 to the financial statements

Critical Audit Matter Description

Collaboration revenue is recognized when, or as, the Company satisfies a performance obligation. The Company recognizes revenue over time by measuring the progress toward complete satisfaction of the relevant performance obligation using an appropriate input method based on the nature of the good or service promised to the customer. After contract inception, the transaction price is reassessed at every period end and updated for changes such as resolution of uncertain events.

In March 2022, the Company entered into a global collaboration and license agreement (the Sanofi Agreement) with Genzyme Corporation, a wholly owned subsidiary of Sanofi (Sanofi), which became effective in May 2022. Under the terms of the Sanofi Agreement, the Company agreed to generate, develop, manufacture, and commercialize IgM antibodies directed to six primary targets, three of which were oncology targets and three of which were immunology targets.

In April 2024, Sanofi exercised its right to terminate the oncology collaboration targets effective June 2024. The Company determined that Sanofi's exercise of its right to terminate the oncology collaboration targets was a contract modification because it changed the scope of the contract by reducing the number of performance obligations under the agreement. As a result, the Company allocated the unrecognized transaction price to the three remaining performance obligations based on their relative estimated Stand-alone Selling Price (SSP).

At contract inception and upon the April 2024 modification, the Company determined the SSP for each of the performance obligations based on the estimated costs to complete the underlying activities of each performance obligation and included factors such as forecasted internal costs, estimated third-party expenditures, development timelines and scenarios, probability of target failures and selection of substitute targets, and program-specific factors. These estimated cost forecasts were based on observable data for both market and entity specific factors, such as considering the actual and expected costs of the Company's existing research and development programs and adjusting for factors specific to the targets identified.

Given the significant assumptions and estimates made by management when determining the SSP of each remaining performance obligation under the amended contract, performing audit procedures to evaluate the reasonableness of management's assumptions and estimates related to the total estimated costs to complete the underlying activities of each remaining performance obligation required a high degree of auditor judgment and an increased extent of effort, including the need to involve our specialists with expertise in scientific and regulatory matters.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the total estimated costs to complete the underlying activities of each remaining performance obligation under the amended contract included the following, among others:

- We obtained an understanding of management's process for developing the estimated costs to complete the underlying activities of each remaining performance obligation.
- We evaluated the appropriateness of management's estimates of total costs to satisfy the performance obligation by involving an auditor's specialist with expertise in scientific and regulatory matters to assist in the evaluation of such costs through benchmarking procedures for similar activities as well as to evaluate whether scientific or regulatory developments have occurred that would significantly impact the cost estimates for each remaining performance obligation.
- We tested the assumptions and underlying data used by the Company in its computation of the total third-party contract expenses estimated to complete the underlying activities of each remaining performance obligation.
- We tested the mathematical accuracy of management's computations of the total estimated costs to complete the underlying activities of each of remaining performance obligation.
- We evaluated the reasonableness of the estimated costs to be incurred as of the contract modification date based on current factors.

/s/ Deloitte & Touche LLP

San Francisco, California

March 6, 2025

We have served as the Company's auditor since 2019.

IGM Biosciences, Inc.
Balance Sheets
(in thousands, except share and per share data)

	December 31, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 26,495	$ 112,520
Restricted cash	167	592
Marketable securities	157,292	225,157
Prepaid expenses and other current assets	9,666	9,328
Total current assets	193,620	347,597
Property, plant and equipment, net	32,509	38,232
Operating lease right-of-use assets	38,524	35,773
Other non-current assets	1,059	1,809
Total assets	$ 265,712	$ 423,411
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 983	$ 1,326
Accrued liabilities	26,883	31,544
Lease liabilities	7,121	5,834
Deferred revenue	2,651	3,777
Total current liabilities	37,638	42,481
Lease liabilities, non-current	38,065	34,672
Deferred revenue, non-current	141,471	143,024
Other liabilities, non-current	366	—
Total liabilities	217,540	220,177
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, $0.01 par value; 200,000,000 shares authorized as of December 31, 2024 and 2023; no shares issued and outstanding	—	—
Common stock, $0.01 par value; 1,000,000,000 shares authorized as of December 31, 2024 and 2023; 34,263,707 and 33,180,749 shares issued and outstanding as of December 31, 2024 and 2023, respectively	342	331
Non-voting common stock, $0.01 par value; 200,000,000 shares authorized as of December 31, 2024 and 2023; 25,386,983 and 25,500,383 shares issued and outstanding as of December 31, 2024 and 2023, respectively	254	255
Additional paid-in-capital	1,064,454	1,023,739
Accumulated other comprehensive income	159	151
Accumulated deficit	(1,017,037)	(821,242)
Total stockholders' equity	48,172	203,234
Total liabilities and stockholders' equity	$ 265,712	$ 423,411

The accompanying notes are an integral part of these financial statements.

IGM Biosciences, Inc.
Statements of Operations
(in thousands, except share and per share data)

	Year Ended December 31,		
	2024	2023	2022
Collaboration revenue	$ 2,679	$ 2,130	$ 1,069
Operating expenses:			
Research and development	160,854	215,519	179,289
General and administrative	50,405	50,072	49,736
Total operating expenses	211,259	265,591	229,025
Loss from operations	(208,580)	(263,461)	(227,956)
Other income (expense)			
Interest income	12,785	17,743	7,035
Other expense	—	(20)	(181)
Total other income (expense)	12,785	17,723	6,854
Loss before income tax expense	(195,795)	(245,738)	(221,102)
Income tax expense	—	(678)	—
Net loss	$ (195,795)	$ (246,416)	$ (221,102)
Net loss per share, basic and diluted	$ (3.24)	$ (4.71)	$ (5.32)
Weighted-average common shares outstanding, basic and diluted	60,514,546	52,311,958	41,543,954

The accompanying notes are an integral part of these financial statements.

IGM Biosciences, Inc.
Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,		
	2024	2023	2022
Net loss	$ (195,795)	$ (246,416)	$ (221,102)
Other comprehensive income (loss):			
Unrealized gain (loss) on marketable securities	8	852	(635)
Comprehensive loss	$ (195,787)	$ (245,564)	$ (221,737)

The accompanying notes are an integral part of these financial statements.

IGM Biosciences, Inc.
Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Non-Voting Common Stock		Additional Paid-In-Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance—December 31, 2021	26,066,818	$ 261	6,431,205	$ 64	$ 598,373	$ (66)	$ (353,724)	$ 244,908
Issuance of common stock in connection with public offering, net of offering costs	1,304,347	28	8,695,653	73	217,886	—	—	217,987
Conversion of non-voting common stock into voting common stock	1,438,975	—	(1,438,975)	—	—	—	—	—
Exercise of stock options	233,459	2	—	—	498	—	—	500
Issuance of common stock for vested restricted stock units	279,683	3	—	—	(3)	—	—	—
Purchases under employee stock purchase plan	71,154	—	—	—	895	—	—	895
Unrealized loss on marketable securities	—	—	—	—	—	(635)	—	(635)
Stock-based compensation expense	—	—	—	—	44,710	—	—	44,710
Net loss	—	—	—	—	—	—	(221,102)	(221,102)
Balance—December 31, 2022	29,394,436	$ 294	13,687,883	$ 137	$ 862,359	$ (701)	$ (574,826)	$ 287,263
Issuance of common stock in connection with public offering and private placement, net of offering costs	3,187,500	32	11,812,500	118	113,334	—	—	113,484
Exercise of stock options	77,762	—	—	—	120	—	—	120
Issuance of common stock for vested restricted stock units	358,184	4	—	—	(4)	—	—	—
Purchases under employee stock purchase plan	162,867	1	—	—	1,383	—	—	1,384
Unrealized gain on marketable securities	—	—	—	—	—	852	—	852
Stock-based compensation expense	—	—	—	—	46,547	—	—	46,547
Net loss	—	—	—	—	—	—	(246,416)	(246,416)
Balance—December 31, 2023	33,180,749	$ 331	25,500,383	$ 255	$ 1,023,739	$ 151	$ (821,242)	$ 203,234
Conversion of non-voting common stock into voting common stock	113,400	1	(113,400)	(1)	—	—	—	—
Exercise of stock options, net of shares withheld for taxes and exercise costs	326,945	3	—	—	1,543	—	—	1,546
Issuance of common stock for vested restricted stock units	485,792	5	—	—	(5)	—	—	—
Purchases under employee stock purchase plan	156,821	2	—	—	911	—	—	913
Unrealized gain on marketable securities	—	—	—	—	—	8	—	8
Stock-based compensation expense	—	—	—	—	38,266	—	—	38,266
Net loss	—	—	—	—	—	—	(195,795)	(195,795)
Balance—December 31, 2024	34,263,707	$ 342	25,386,983	$ 254	$ 1,064,454	$ 159	$ (1,017,037)	$ 48,172

The accompanying notes are an integral part of these financial statements.

IGM Biosciences, Inc.
Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2024	2023	2022
Cash flows from operating activities:			
Net loss	$ (195,795)	$ (246,416)	$ (221,102)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	9,112	8,277	6,075
Stock-based compensation expense	38,266	46,547	44,710
Purchase of net discounts on marketable securities	4,038	9,481	7,368
Net accretion of discounts on marketable securities	(6,883)	(9,140)	(2,713)
Non-cash lease expense	5,296	5,414	4,527
Other	75	299	112
Changes in assets and liabilities:			
Prepaid expenses and other current assets	480	1,711	359
Other non-current assets	750	194	(967)
Accounts payable	(307)	(992)	(3,002)
Accrued liabilities	(2,348)	(3,214)	13,705
Lease liabilities, net	(3,367)	(2,262)	(3,856)
Deferred revenue	(2,679)	(2,130)	148,931
Other non-current liabilities	366	—	—
Net cash used in operating activities	(152,996)	(192,231)	(5,853)
Cash flows from investing activities:			
Purchases of property, plant and equipment	(5,852)	(12,381)	(10,206)
Purchases of marketable securities	(219,427)	(365,039)	(540,022)
Proceeds from maturities and sales of marketable securities	289,398	445,775	324,584
Proceeds from sales of property, plant and equipment	39	—	—
Net cash provided by (used in) investing activities	64,158	68,355	(225,644)
Cash flows from financing activities:			
Proceeds from exercise of stock options	1,547	120	500
Proceeds from purchases under the employee stock purchase plan	913	1,384	895
Proceeds from issuance of common stock in public offering and private placement, net of offering costs	—	113,564	—
Proceeds from issuance of common stock in public offerings, net of offering costs	—	—	217,987
Payment of deferred offering costs	(71)	—	—
Payment of employee taxes and exercise costs for shares withheld	(1)	—	—
Net cash provided by financing activities	2,388	115,068	219,382
Net decrease in cash, cash equivalents and restricted cash	(86,450)	(8,808)	(12,115)
Cash, cash equivalents, and restricted cash			
Beginning of period	113,112	121,920	134,035
End of period	$ 26,662	$ 113,112	$ 121,920
Reconciliation of cash, cash equivalents, and restricted cash			
Cash and cash equivalents	$ 26,495	$ 112,520	$ 121,231
Restricted cash	167	592	689
Cash, cash equivalents, and restricted cash	$ 26,662	$ 113,112	$ 121,920
Supplemental cash flow data:			
Income taxes paid	$ —	$ 625	$ —
Supplemental disclosure of non-cash investing and financing activities:			
Right-of-use assets recognized in exchange for lease obligations	$ 8,047	$ 1,596	$ 16,269
Unpaid amounts related to purchases of property, plant and equipment	$ 59	$ 2,408	$ 1,465

The accompanying notes are an integral part of these financial statements.

IGM Biosciences, Inc.
Notes to Financial Statements

Note 1. Organization

Description of the Business

IGM Biosciences, Inc. (the Company) was incorporated in the state of Delaware in August 1993 under the name Palingen, Inc. and the name was subsequently changed to IGM Biosciences, Inc. in 2010.

The Company's headquarters are in Mountain View, California. IGM Biosciences, Inc. is a biotechnology company that has historically been focused on the development of IgM antibodies for the treatment of cancer and autoimmune and inflammatory diseases.

Prior to September 30, 2024, the Company consolidated two wholly owned subsidiaries. To simplify the corporate structure, the Company's board of directors approved the merger (Merger) of the subsidiaries with and into the Company, with the Company being the surviving corporation, effective August 30, 2024.

Because the Merger was a reorganization of entities under common control, the net assets were transferred from its subsidiaries at historical carrying value and the effects of the transaction were applied retrospectively as if the Merger had occurred at the earliest date presented in the Company's financial statements in accordance with Accounting Standard Codification (ASC) Topic 250, *Accounting changes and error corrections* (Topic 250). The Merger did not have an impact on the financial statements as the Company's financials have historically been presented on a consolidated basis.

Basis of Presentation

These financial statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP), as defined by the Financial Accounting Standards Board (FASB). All U.S. dollar (USD) amounts presented, except per share amounts, are stated in thousands, unless otherwise indicated.

Liquidity

The Company has incurred net operating losses and negative cash flows from operations since its inception and had an accumulated deficit of $1.0 billion as of December 31, 2024. As of December 31, 2024, the Company had cash, cash equivalents, and marketable securities of $183.8 million. Management believes that the existing financial resources are sufficient to continue operating activities at least one year past the issuance date of these financial statements. The Company has historically financed its operations primarily through the sale of common stock and pre-funded warrants in its public offerings and private placement, the sale of convertible preferred stock and issuance of unsecured promissory notes in private placements, and funding received from our collaboration partners. To date, none of the Company's product candidates have been approved for sale, and the Company has not generated any product revenue since inception. Management expects operating losses to continue for the foreseeable future, as the Company progresses its planned research and development activities for its product candidates. The Company's prospects are subject to risks, expenses and uncertainties frequently encountered by companies in the biotechnology industry as discussed below. While the Company has been able to raise multiple rounds of financing, there can be no assurance that in the event the Company requires additional financing, such financing will be available on terms which are favorable or at all. Failure to raise sufficient capital when needed or generate sufficient cash flow from operations would impact the ability to pursue business strategies and could require the Company to delay, scale back or discontinue one or more product development programs, or other aspects of the Company's business objectives.

Note 2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Such management estimates include, but are not limited to, those related to revenue recognition, marketable securities, manufacturing accruals, accrued research and development expenses, stock-based compensation, operating lease right-of-use (ROU) assets and liabilities, income tax uncertainties and the valuation of deferred tax assets. The Company bases its estimates on its historical experience and also on assumptions that it believes are reasonable; however, actual results could significantly differ from those estimates. The most significant estimates and assumptions that management considers in the preparation of our financial statements relate to revenue recognition, accrued research and development costs, and leases.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to a concentration of credit risk consist primarily of cash, cash equivalents, and marketable securities. The Company invests in money market funds, U.S. treasury securities, corporate bonds, commercial paper, and U.S. government agency securities. The Company maintains bank deposits in federally insured financial institutions and these deposits may exceed federally insured limits. The Company is exposed to credit risk in the event of a default by the financial institutions holding its cash, cash equivalents, and restricted cash, and bond issuers to the extent recorded on the balance sheets. The Company's investment policy limits investments to high credit quality securities issued by the U.S. government and its agencies, highly rated banks, and corporate issuers, subject to certain concentration limits and restrictions on maturities. The Company has not experienced any material losses on its deposits of cash, cash equivalents, and marketable securities.

The Company's future results of operations involve a number of other risks and uncertainties. Factors that could affect the Company's future operating results and cause actual results to vary materially from expectations include, but are not limited to, the Company's early stages of clinical drug development; uncertainties related to the use of engineered IgM antibodies, which is a novel and unproven therapeutic approach; the Company's ability to advance product candidates into, and successfully complete, clinical trials on the timelines it projects; the Company's ability to adequately demonstrate sufficient safety and efficacy of its product candidates; the Company's ability to enroll patients in its future clinical trials; the Company's ability to successfully manufacture and supply its product candidates for clinical trials; the occurrence of any event or circumstance that could give rise to the termination of the Company's collaborations with third parties; the Company's ability to obtain additional capital to finance its operations; uncertainties related to the projections of the size of patient populations suffering from the diseases the Company is targeting; the Company's ability to obtain, maintain, and protect its intellectual property rights; developments relating to the Company's competitors and its industry, including competing product candidates and therapies; general economic and market conditions; and other risks and uncertainties, including those more fully described in the "Risk Factors" section of this Annual Report on Form 10-K.

The Company's product candidates will require approvals from the U.S. Food and Drug Administration (FDA) and comparable foreign regulatory agencies prior to commercial sales in their respective jurisdictions. There can be no assurance that any product candidates will receive the necessary approvals. If the Company was denied approval, approval was delayed or the Company was unable to maintain approval for any product candidate, it could have a materially adverse impact on the Company.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with original maturities of three months or less from the date of purchase to be cash and cash equivalents. Cash equivalents consist primarily of amounts invested in money market funds, commercial paper, U.S. treasury securities, and U.S. government agency securities and are stated at fair value. Restricted cash consists of the remaining unused portion of a grant received from a non-profit organization which is utilized as the Company incurs expenses for services performed under the grant agreement.

Marketable Securities

The Company's marketable securities have been classified and accounted for as available-for-sale securities. Fixed income securities consist of U.S. treasury securities, U.S. government agency securities, corporate bonds, and commercial paper. The specific identification method is used to determine the cost basis of fixed income securities sold. These securities are recorded on the balance sheets at fair value. Unrealized gains and losses on these securities are included as a separate component of accumulated other comprehensive loss. The cost of marketable securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in other income (expense). All available-for-sale securities are considered available to support current operations and are classified as current assets. The Company presents any credit losses identified as an allowance rather than as a reduction in the amortized cost of the available-for-sale securities.

For available-for-sale debt securities in an unrealized loss position, the Company first assesses whether it intends to sell, or it is more likely than not that it will be required to sell the security before recovery of its amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the security's amortized cost basis is written down to fair value and recognized in other income (expense) in the statements of operations. If neither criteria is met, the Company evaluates whether the decline in fair value is related to credit-related factors or other factors. In making this assessment, management considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security,

among other factors. Credit-related impairment losses, limited by the amount that the fair value is less than the amortized cost basis, are recorded through an allowance for credit losses in other income (expense).

Any unrealized losses from declines in fair value below the amortized cost basis as a result of non-credit factors are recognized in accumulated other comprehensive income (loss), net of tax as a separate component of stockholders' equity, along with unrealized gains. Realized gains and losses and declines in fair value, if any, on available-for-sale securities are included in other income (expense) in the statements of operations.

For purposes of identifying and measuring credit-related impairments, the Company's policy is to exclude applicable accrued interest from both the fair value and amortized cost basis of the related security. The Company has elected to write-off uncollectible accrued interest receivable balances in a timely manner, which is defined by the Company as when interest due becomes 90 days delinquent. The accrued interest write-off will be recorded by reversing interest income. Accrued interest receivable is recorded to prepaid expenses and other current assets on the balance sheets.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation is determined using the straight-line method over the estimated useful lives of the respective assets, generally three to five years. Leasehold improvements are depreciated using the straight-line method over the shorter of the lease term or the estimated useful economic lives of the related assets. Assets are held in construction in progress until placed in service, upon which date, we begin to depreciate these assets.

Upon retirement or sale of the assets, the cost and related accumulated depreciation and amortization are removed from the balance sheets and the resulting gain or loss are recorded to the statements of operations. Repairs and maintenance are charged to the statements of operations as incurred.

Leases

The Company determines if an arrangement is a lease at inception. In addition, the Company determines whether leases meet the classification criteria of a finance or operating lease at the lease commencement date considering: (1) whether the lease transfers ownership of the underlying asset to the lessee at the end of the lease term, (2) whether the lease grants the lessee an option to purchase the underlying asset that the lessee is reasonably certain to exercise, (3) whether the lease term is for a major part of the remaining economic life of the underlying asset, (4) whether the present value of the sum of the lease payments and residual value guaranteed by the lessee equals or exceeds substantially all of the fair value of the underlying asset, and (5) whether the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term. As of December 31, 2024, the Company's lease population consisted of real estate leases and the Company did not have finance leases.

Operating leases are included in operating lease ROU assets and lease liabilities in the Company's balance sheets. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. In determining the present value of lease payments, the Company uses its incremental borrowing rate based on the information available at the lease commencement date if the rate implicit in the lease is not readily determinable. The Company determines the incremental borrowing rate based on an analysis of corporate bond yields with a credit rating similar to the Company.

The determination of the Company's incremental borrowing rate requires management judgment including the development of a synthetic credit rating and cost of debt as the Company currently does not carry any debt. The Company believes that the estimates used in determining the incremental borrowing rate are reasonable based upon current facts and circumstances. Applying different judgments to the same facts and circumstances could result in the estimated amounts to vary. The operating lease ROU assets also include adjustments for prepayments and accrued lease payments and exclude lease incentives. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise such options. Operating lease cost is recognized on a straight-line basis over the expected lease term. Variable lease costs represent payments that are dependent on usage, a rate or index. Variable lease cost primarily relates to common area maintenance charges. Lease agreements that include lease and non-lease components are accounted for as a single lease component. Lease agreements with a noncancelable term of less than 12 months are not recorded on the Company's balance sheets.

Impairment of Long-Lived Assets

The Company evaluates the carrying amount of its long-lived assets, such as property and equipment, whenever events or changes in circumstances indicate that the assets may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying amount of the asset. During the years ended December 31, 2024 and 2023, there were impairments on long-lived assets of $0.1 million and $0.3 million, respectively, related to leasehold improvements. There was no impairment of long-lived assets during the year ended December 31, 2022.

Fair Value Measurement

The Company applies fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. Fair value is 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, a three-tier fair value hierarchy has been established, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Observable inputs, such as quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs which reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible as well as considers counterparty credit risk in its assessment of fair value.

Financial instruments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations or alternative pricing sources. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, or historical pricing trends of a security relative to its peers.

Revenue Recognition

For arrangements or transactions between participants determined to be within the scope of ASC Topic 606, *Revenue from Contracts with Customers* (Topic 606) the Company performs the following steps to determine the appropriate amount of revenue to be recognized as the Company fulfills its obligations: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price, including variable consideration, if any; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

The Company has entered into and may enter into additional collaboration agreements in the future under which it may obtain upfront payments, milestone payments, royalty payments, profit sharing, and other fees. Promises under these arrangements may include intellectual property licenses, research and development services, and the participation in joint committees.

At contract inception, the Company assesses the goods or services promised and enforceable in a contract with a customer and identifies those distinct goods and services that represent a performance obligation. In assessing whether a promised good or service is distinct, and therefore a performance obligation, the Company considers factors such as the nature of the research, stage of development of the targets, manufacturing and commercialization capabilities of the customer and the availability of the associated expertise in the general marketplace. The Company also considers the intended benefit of the contract in assessing whether a promised good or service is separately identifiable from other promises in the contract. If a promised good or service is not distinct, the Company combines that good or service with other promised goods or services until it identifies a bundle of goods or services that is distinct. Promised goods and services that are not material in the context of the contract are not considered performance obligations. Additional goods or services that are exercisable at a customer's discretion, including substitution rights, are assessed to determine if they provide a material right to the customer and if so, they are considered performance obligations.

The transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring promised goods or services to a customer. The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. Non-refundable upfront payments are considered fixed consideration and included in the transaction price.

If an arrangement includes development, regulatory or commercial milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. The Company includes the amount of estimated variable consideration, including milestones, in the transaction price to the extent that it is probable that a significant reversal of cumulative revenue recognized will not occur. Milestone payments that are not within the Company's control or the licensee's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. For arrangements with licenses of intellectual property that include sales-based royalties, including milestone payments based on the level of sales, and if the license is deemed to be the predominant item to which the royalties relate, the Company recognizes royalty revenue and sales-based milestones at the later of (i) when the related sales occur, or (ii) when the performance obligation to which the royalty has been allocated has been satisfied.

If it is determined that multiple performance obligations exist, the transaction price is allocated at the inception of the agreement to all identified performance obligations based on the relative standalone selling prices (SSP), unless the consideration is variable and meets the criteria to be allocated entirely to one or more, but not all, performance obligations in the contract. The relative SSP for each deliverable is estimated using objective evidence if it is available. If SSP is not directly observable the Company estimates the SSP at an amount that would result in the allocation of the transaction price in an amount that depicts the amount of consideration to which the entity expects to be entitled in exchange for transferring the promised goods or services to the customer, using methods such as the expected cost plus margin approach. Once the transaction price has been allocated to a performance obligation using the applicable methodology, it is not subject to reassessment for subsequent changes in standalone selling prices.

Collaboration revenue is recognized when, or as, the Company satisfies a performance obligation. The Company recognizes revenue over time by measuring the progress toward complete satisfaction of the relevant performance obligation using an appropriate input method based on the nature of the good or service promised to the customer. After contract inception, the transaction price is reassessed at every period end and updated for changes such as resolution of uncertain events.

Management may be required to exercise considerable judgment in estimating revenue to be recognized. Judgment is required in identifying performance obligations, estimating the transaction price, including variable consideration, estimating the standalone selling prices of identified performance obligations, and applying the input method for revenue recognition, including the estimated budgets for each performance obligation.

Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue in the Company's balance sheets. If the related performance obligation is expected to be satisfied within the next twelve months this will be classified in current liabilities. Amounts recognized as revenue prior to receipt are recorded as contract assets in the Company's balance sheets. If the Company expects to have an unconditional right to receive consideration in the next twelve months, this will be classified in current assets. A net contract asset or liability is presented for each contract with a customer.

Contract modifications occur when the price and /or scope of an arrangement changes. If the modification consists of adding new distinct goods or services in exchange for consideration that reflects standalone selling prices of these goods and services, the modification is accounted for as a separate contract with the customer. Otherwise, if the remaining goods and services are distinct from those previously provided, the existing contract is considered terminated, and the remaining consideration is allocated to the remaining goods and services as if this was a newly signed contract. If the remaining goods and services are not distinct from those previously provided, the effects of the modification are accounted for in a manner similar to the effect of a change in the estimated measure of progress, with cumulative catch-up in revenue recorded at the time of the modification. If some of the remaining goods and services are distinct from those previously provided and others are not, the Company applies principles consistent with the objectives of the modification guidance to account for the effects of the modification.

Collaborative Arrangements

The Company analyzes its agreements to assess whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards dependent on the commercial success of such activities and therefore within the scope of ASC Topic 808, *Collaborative Arrangements* (Topic 808). These assessments are performed throughout the life of the arrangements based on changes in the responsibilities of all parties in the arrangement.

Research and Development Expenses

The Company expenses research and development costs as they are incurred. Research and development expenses consist primarily of: (i) personnel expenses, including salaries, benefits and stock-based compensation expense, for personnel in the Company's research and development functions; (ii) fees paid to third parties such as contractors, consultants and contract research organizations (CROs) for conducting clinical trials, and other costs related to clinical and preclinical testing; (iii) costs related to acquiring and manufacturing research and clinical trial materials, including under agreements with third parties such as contract manufacturing organizations (CMOs), and other vendors; (iv) costs related to the preparation of regulatory submissions; (v) expenses related to laboratory supplies and services; (vi) fees under license agreements where no alternative future use exists; and (vii) depreciation of equipment and facilities expenses.

Accrued Research and Development Expenses

The Company records accruals for estimated costs of research, preclinical studies, clinical trials, and manufacturing, which are significant components of research and development expenses. A substantial portion of the Company's ongoing research and development activities is conducted by third-party service providers, CROs and CMOs. The Company's contracts with CROs generally include pass-through fees such as laboratory supplies and services, regulatory expenses, investigator fees, travel costs and other miscellaneous costs, including shipping and printing fees. The Company's contracts with the CMOs generally include fees such as initiation fees, reservation fees, verification run costs, materials and reagents expenses, taxes, etc. 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 to the Company under such contracts. The Company accrues the costs incurred under agreements with these third parties based on estimates of actual work completed in accordance with the respective agreements. The Company determines the estimated costs through discussions with internal personnel and external service providers as to the progress, or stage of completion or actual timeline (start-date and end-date) of the services and the agreed-upon fees to be paid for such services. In the event the Company makes advance payments, the payments are recorded as a prepaid expense and recognized as the services are performed.

As actual costs become known, the Company adjusts its accruals. Although the Company does not expect its estimates to be materially different from amounts actually incurred, such estimates for the status and timing of services performed relative to the actual status and timing of services performed may vary and could result in the Company reporting amounts that are too high or too low in any particular period. The Company's accrual is dependent, in part, upon the receipt of timely and accurate reporting from CROs and other third-party vendors. Variations in the assumptions used to estimate accruals including, but not limited to, the number of patients enrolled, the rate of patient enrollment and the actual services performed, may vary from the Company's estimates, resulting in adjustments to clinical trial expenses in future periods. Changes in these estimates that result in material changes to the Company's accruals could materially affect its financial condition and results of operations. Through December 31, 2024, there have been no material differences from the Company's estimated accrued research and development expenses to actual expenses.

Acquired In-Process Research and Development Expenses

The Company has entered into agreements (see Note 7 – License Agreements) with third parties to acquire the rights to develop and potentially commercialize certain products. Such agreements generally require an initial payment by the Company when the contract is executed. The purchase of license rights for use in research and development activities, including product development, are expensed as incurred and are classified as research and development expense. Additionally, the Company may be obligated to make future royalty payments in the event the Company commercializes the technology and achieves a certain sales volume. In accordance with ASC Topic 730, *Research and Development* (Topic 730), expenditures for research and development, including upfront licensing fees and milestone payments associated with products not yet been approved by the FDA, are charged to research and development expense as incurred. Future contract milestone and/or royalty payments will be recognized as expense after the achievement of the milestone and the corresponding milestone payment is legally due.

Stock-Based Compensation

The Company accounts for stock-based compensation by measuring and recognizing compensation expense for all share-based awards made to employees, non-employees and directors based on estimated grant-date fair values. The Company uses the straight-line method to allocate compensation cost to reporting periods over the requisite service period, which is generally the vesting period. The grant date fair value of restricted stock units is estimated based on the closing stock price of the Company's common stock on the date of grant. The grant date fair value of stock options granted to employees and directors is estimated using the Black-Scholes option-pricing model. The Company accounts for forfeitures as they occur. The Company accounts for any changes in the terms or conditions

of an award as a modification in accordance with ASC 718, *Compensation - Stock Compensation* (Topic 718). In calculating the incremental compensation cost of a modification, the fair value of the modified award is compared to the fair value of the original award measured immediately before its terms or conditions were modified. The fair value of each purchase right under the employee stock purchase plan (ESPP) is estimated at the beginning of the offering period using the Black-Scholes option pricing model and recorded as expense over the service period using the straight-line method.

Income Taxes

The Company accounts for income taxes using the liability method, whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance when it is more likely than not that some portion, or all of the Company's deferred tax assets will not be realized.

The Company accounts for income tax contingencies using a benefit recognition model. If it considers that a tax position is more likely than not to be sustained upon audit, based solely on the technical merits of the position, it recognizes the benefit. The Company measures the benefit by determining the amount that is greater than 50% likely of being realized upon settlement, presuming that the tax position is examined by the appropriate taxing authority that has full knowledge of all relevant information. The Company is subject to taxation in the United States federal jurisdiction, and various state jurisdictions. The net operating loss and research and development credit carryforwards that are available for utilization in future years may be subject to examination by federal and state tax authorities. The Company's policy is to recognize interest expense and penalties related to income tax matters as a component of income tax expense. As of December 31, 2024, there were no significant accruals for interest related to unrecognized tax benefits or tax penalties.

Comprehensive Loss

Comprehensive loss represents the net loss for the period and other comprehensive loss. Other comprehensive loss reflects certain gains and losses that are recorded as a component of stockholders' equity and are not reflected in the statements of operations. The Company's other comprehensive loss consists of changes in unrealized gains and losses on available-for-sale securities.

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of shares of common stock (including non-voting common stock and pre-funded warrants) outstanding during the period, without consideration for all other common stock equivalents. Shares of common stock into which the pre-funded warrants may be exercised are considered outstanding for the purposes of computing net loss per share because the shares may be issued for little or no consideration, are fully vested, and are exercisable after the original issuance date. Diluted net loss per share is the same as basic net loss per share, since the effects of potentially dilutive securities are antidilutive given the net loss for each period presented.

Recently Issued Accounting Pronouncements

In November 2024, the FASB issued Accounting Standards Update (ASU) 2024-03, *Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures,* to improve the disclosures about a public business entity's expenses and address requests from investors for more detailed information about the types of expenses in commonly presented expense captions. The amendments require that at each interim and annual reporting period, an entity will disclose certain disaggregated expenses included in each relevant expense caption, as well as the total amount of selling expenses and, in annual periods, an entity's definition of selling expenses. The amendments in this update are effective for annual reporting periods beginning after December 15, 2026, and interim reporting periods beginning after December 15, 2027. Early adoption is permitted. The Company is currently evaluating the impacts of this standard on its related disclosures.

In October 2023, the FASB issued ASU 2023-06, *Disclosure Improvements - Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative,* which will impact various disclosure areas. The amendments in ASU 2023-06 will be effective on the date the related disclosures are removed from Regulation S-X or Regulation S-K by the SEC, and will no longer be effective if the SEC has not removed the applicable disclosure requirement by June 30, 2027. The Company is currently evaluating the impacts of this standard on its related disclosures.

In December 2023, the FASB issued ASU 2023-09, *Improvements to Income Tax Disclosures*, which amends the guidance in ASC 740, *Income Taxes*. The ASU is intended to improve the transparency of income tax disclosures by requiring (1) consistent categories

and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. The ASU's amendments are effective for public business entities for annual periods beginning after December 15, 2024. Entities are permitted to early adopt the standard for annual financial statements that have not yet been issued or made available for issuance. Adoption is permitted either prospectively or retrospectively. The Company will adopt this ASU on a prospective basis. The Company is currently evaluating the impact of this standard but does not expect any material impacts on its financial statements and related disclosures.

Recently Adopted Accounting Pronouncements

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting - Improving Reportable Segment Disclosures (Topic 280)*. The standard requires disclosures to include significant segment expenses that are regularly provided to the chief operating decision maker (CODM), a description of other segment items by reportable segment, and any additional measures of a segment's profit or loss used by the CODM when deciding how to allocate resources. This ASU is effective for the annual reporting periods beginning the year ended December 31, 2024, and will be effective for interim reporting periods beginning January 1, 2025, and should be applied retrospectively. The Company adopted this ASU retrospectively in the fiscal year ended December 31, 2024.

Note 3. Fair Value Measurement

The Company measures and reports certain financial instruments as assets and liabilities at fair value on a recurring basis. The following tables set forth the fair value of the Company's financial assets, which consist of cash equivalents and marketable securities measured and recognized at fair value (in thousands):

		December 31, 2024			
	Fair Value Hierarchy Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash equivalents:					
Money market funds	Level 1	$ 24,376	$ —	$ —	$ 24,376
Marketable securities:					
U.S. treasury securities	Level 1	105,219	117	(23)	105,313
Corporate bonds	Level 2	20,437	36	(3)	20,470
Commercial paper	Level 2	13,894	6	(1)	13,899
U.S. government agency securities	Level 2	17,583	31	(4)	17,610
Total		$ 181,509	$ 190	$ (31)	$ 181,668

		December 31, 2023			
	Fair Value Hierarchy Level	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash equivalents:					
Money market funds	Level 1	$ 21,458	$ —	$ —	$ 21,458
U.S. treasury securities	Level 1	25,896	2	—	25,898
Commercial paper	Level 2	54,427	—	(27)	54,400
U.S. government agency securities	Level 2	4,951	1	—	4,952
Marketable securities:					
U.S. treasury securities	Level 1	182,289	214	(14)	182,489
Corporate bonds	Level 2	13,986	—	(8)	13,978
Commercial paper	Level 2	20,216	—	(17)	20,199
U.S. government agency securities	Level 2	8,491	11	(11)	8,491
Total		$ 331,714	$ 228	$ (77)	$ 331,865

The Company evaluates transfers between levels at the end of each reporting period. There were no transfers between Levels 1, 2 and 3 during the years ended December 31, 2024 and 2023. As of December 31, 2024 and 2023, there were no financial instruments classified as Level 3.

IGM Biosciences, Inc.
Notes to Financial Statements — Continued

The following table summarizes the available-for-sale securities in an unrealized loss position for which an allowance for credit losses has not been recorded as of December 31, 2024 and 2023, aggregated by major security type and length of time in a continuous unrealized loss position:

	December 31, 2024					
	Less than 12 months		Greater than 12 months		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. treasury securities	$ 18,621	$ (23)	$ —	$ —	$ 18,621	$ (23)
Corporate bonds	3,065	(3)	—	—	3,065	(3)
Commercial paper	6,064	(1)	—	—	6,064	(1)
U.S. government agency securities	5,199	(4)	—	—	5,199	(4)
Total	$ 32,949	$ (31)	$ —	$ —	$ 32,949	$ (31)

	December 31, 2023					
	Less than 12 months		Greater than 12 months		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. treasury securities	$ 28,137	$ (14)	$ —	$ —	$ 28,137	$ (14)
Corporate bonds	13,978	(8)	—	—	13,978	(8)
Commercial paper	74,599	(44)	—	—	74,599	(44)
U.S. government agency securities	4,771	(11)	—	—	4,771	(11)
Total	$ 121,485	$ (77)	$ —	$ —	$ 121,485	$ (77)

As of December 31, 2024 and 2023, the Company held 20 and 35 debt securities, respectively, with an unrealized loss position. The Company evaluated its securities for credit losses and considered the decline in market value to be primarily attributable to current economic and market conditions and not to a credit loss or other factors. Additionally, the Company does not intend to sell the securities in an unrealized loss position and does not expect it will be required to sell the securities before recovery of the unamortized cost basis. As of December 31, 2024 and 2023, an allowance for credit losses has not been recognized. Given the Company's intent and ability to hold such securities until recovery, and the lack of significant change in credit risk of these investments, it does not consider these marketable securities impaired as of December 31, 2024 and 2023.

There were no realized gains or losses on marketable securities for years ended December 31, 2024 and 2023. Interest on marketable securities is included in interest income. As of December 31, 2024 and 2023, the Company had accrued interest receivable of $0.8 million, which was included in prepaid expenses and other current assets on the balance sheets.

The following table summarizes the contractual maturities of the Company’s cash equivalents and marketable securities as of December 31, 2024 and 2023 at estimated fair value (in thousands):

	December 31,	
	2024	2023
Due in less than one year	$ 167,815	$ 312,554
Due in more than one year	13,853	19,311
Total	$ 181,668	$ 331,865

IGM Biosciences, Inc.
Notes to Financial Statements — Continued

Note 4. Property, Plant and Equipment, Net

Property, plant and equipment, net consists of the following (in thousands):

	December 31,	
	2024	2023
Manufacturing and laboratory equipment	$ 33,958	$ 32,712
Office equipment	2,697	2,409
Leasehold improvements	24,157	17,912
Construction in progress	1,009	5,798
Total property, plant and equipment, gross	61,821	58,831
Less: Accumulated depreciation	(29,312)	(20,599)
Total property, plant and equipment, net	$ 32,509	$ 38,232

Depreciation expense was approximately $9.1 million, $8.3 million and $6.1 million for the years ended December 31, 2024, 2023 and 2022, respectively.

Note 5. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31,	
	2024	2023
Accrued research and development materials and services	$ 15,452	$ 14,625
Accrued professional services	983	3,147
Accrued compensation	10,196	13,527
Other	252	245
Total accrued liabilities	$ 26,883	$ 31,544

Note 6. Leases

Operating Leases

The Company leases its headquarters with its main offices and laboratory and manufacturing facilities in Mountain View, California. Additionally, the Company has a lease for office and laboratory space in Doylestown, Pennsylvania. These leases require monthly lease payments that may be subject to annual increases throughout the lease term. Certain of these leases also include renewal options at the election of the Company. These optional periods have not been considered in the determination of the right-of-use assets or lease liabilities associated with these leases as the Company did not consider it reasonably certain it would exercise the options. The Company performed evaluations of its contracts and determined it has only operating leases. Variable lease expense for these leases primarily consists of common area maintenance and other operating costs.

The following table summarizes the lease costs and cash paid for the Company's leases (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Cash paid for operating lease liabilities	$ 8,348	$ 8,100	$ 5,548
Operating lease cost	7,924	8,250	6,217
Variable lease cost	1,044	1,084	592

The following table summarizes the weighted-average remaining lease term and discount rates for the Company's leases:

	December 31,	
	2024	2023
Lease term (in years)	7.4	8.1
Discount rate	6.5%	6.5%

The maturities of the Company's lease liabilities as of December 31, 2024 were as follows (in thousands):

Years Ending December 31,	Operating Lease Commitments
2025	$ 7,759
2026	7,319
2027	7,521
2028	7,484
2029	7,356
Thereafter	19,356
Total	56,795
Less: imputed interest	(11,609)
Total lease liabilities	$ 45,186

Note 7. License Agreements

The Company enters into arrangements to in-license research and development technology rights with third parties relating to its clinical and pre-clinical programs and product candidates. These arrangements may include non-refundable, upfront payments, payments for options to acquire additional rights relating to its product candidates, as well as contingent obligations for potential development, regulatory and commercial performance milestone payments, and royalty payments. The Company's obligation to make payments for contingent obligations is contingent upon the respective milestones being achieved as well as its continued involvement in the programs and/or the lack of any adverse events which could cause the discontinuance of the programs. The activities under these license agreements are performed with no guarantee of either technological or commercial success.

During the years ended December 31, 2024, 2023, and 2022 the Company recorded $0.7 million, $1.9 million and $3.3 million, respectively, as research and development expense in our statements of operations related to license agreements.

As of December 31, 2024, the Company's license agreements for technologies optioned by the Company, including the Medivir agreement described below, included potential future payments for development, regulatory, and sales milestones totaling approximately $361.9 million plus royalties on net sales that range from single digits to mid-teens. No milestones were achieved or deemed probable as of December 31, 2024.

Medivir Agreement

In January 2021, the Company entered into an exclusive license agreement with Medivir AB (Medivir) through which the Company received global, exclusive development and commercialization rights for birinapant, a clinical-stage Second Mitochondrial-derived Activator of Caspases (SMAC) mimetic. Under the terms of the agreement, the Company made an upfront payment of $1.0 million upon signing the agreement, and made an additional $1.5 million payment in November 2021 due to the Company's initiation of a Phase 1 clinical trial of aplitabart in combination with birinapant. Under the terms of the agreement, should birinapant be successfully developed and approved, the Company would be obligated to make additional milestone payments up to a total of approximately $348.5 million, plus tiered royalties from the mid-single digits up to mid-teens on net sales. No milestones were achieved or deemed probable as of December 31, 2024. On February 24, 2025, the Company notified Medivir that it was exercising its right to terminate the license agreement as of May 25, 2025.

Note 8. Stockholders' Equity

Common Stock and Non-Voting Common Stock

As of December 31, 2024 and 2023, the Company's certificate of incorporation authorized the Company to issue 1,200,000,000 shares of common stock (including 200,000,000 shares of non-voting common stock) and 200,000,000 shares of preferred stock, at a par value of $0.01 per share. Each share of common stock (excluding non-voting common stock) is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the Company's Board of Directors, subject to prior rights of the preferred stockholders. As of December 31, 2024 and 2023, no dividends have been declared.

The Company had reserved common stock, on an as-converted basis, for future issuance as follows:

	December 31,	
	2024	2023
Stock options, issued and outstanding	5,561,663	6,766,340
Unreleased restricted stock units	2,559,753	658,792
Stock options and restricted stock units, future issuance	4,416,534	3,536,312
Employee stock purchase plan, available for future grants	1,780,167	1,376,988
Pre-funded warrants	1,334,332	1,334,332
Total	15,652,449	13,672,764

Stock Offerings

On July 3, 2023, the Company completed an underwritten public offering for the issuance of 3,187,500 shares of voting common stock and 9,000,000 shares of non-voting common stock at a public offering price of $8.00 per share pursuant to a shelf registration statement on Form S-3 (2023 Public Offering). This includes the full exercise by the underwriters of their option to purchase up to 1,589,673 shares of voting common stock. Of the shares sold in the 2023 Public Offering, 3,187,500 shares of voting common stock and 3,375,000 shares of non-voting common stock were issued on June 26, 2023, and the remaining 5,625,000 shares of non-voting common stock were issued on July 3, 2023.

On June 26, 2023, the Company also issued and sold 2,812,500 shares of its non-voting common stock in a concurrent private placement exempt from the registration requirements of the Securities Act at a sale price of $8.00 per share.

The total net proceeds received by the Company from the 2023 Public Offering and concurrent private placement were $113.5 million, after deducting underwriting discounts and commissions and offering costs of $6.5 million.

In April 2022, the Company issued and sold 10,000,000 shares of common stock, including 8,695,653 shares of non-voting common stock and the full exercise of the underwriters' option to purchase 1,304,347 shares of voting common stock, each at a public offering price of $23.00 per share in an underwritten public offering pursuant to a shelf registration statement on Form S-3. The net proceeds to the Company from the offering were $218.0 million, after deducting underwriting discounts and commissions and offering costs of $12.0 million.

Pre-Funded Warrants

In December 2020, the Company issued pre-funded warrants to purchase up to 1,334,332 shares of common stock in an underwritten public offering at the offering price of the common stock, less the $0.01 per share exercise price of each warrant and were issued to two separate related party affiliates. The pre-funded warrants were recorded as a component of stockholders' equity within additional paid-in-capital and will expire on the date any such warrant is exercised in full.

Subject to applicable law, upon exercise of a pre-funded warrant, a holder may elect to receive the same number of shares of non-voting common stock as the shares of common stock for which the pre-funded warrant is exercisable, provided that (i) at the time of such election there is a sufficient number of authorized but unissued and otherwise unreserved shares of non-voting common stock and (ii) the Company consents to such election.

The outstanding pre-funded warrants to purchase shares of common stock are exercisable at any time after their original issuance. However, the Company may not affect the exercise of any pre-funded warrants, and a holder will not be entitled to exercise any portion of any pre-funded warrants that, upon giving effect to such exercise, would cause: (i) the aggregate number of shares of the Company's common stock beneficially owned by such holder (together with its affiliates) to exceed 9.99% of the number of shares of the Company's common stock outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of the Company's securities beneficially owned by such holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of the Company's securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder of a pre-funded warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to the Company. As of December 31, 2024, no shares underlying the pre-funded warrants had been exercised. All of the outstanding pre-funded warrants are included in the weighted-average number of shares of common stock used to calculate basic net loss per share attributable to common stockholders (see Note 14 – Net Loss Per Share Attributable to Common Stockholders).

Note 9. Sanofi Agreement

In March 2022, the Company entered into a global collaboration and license agreement (the Sanofi Agreement) with Genzyme Corporation, a wholly owned subsidiary of Sanofi (Sanofi), which became effective in May 2022. Under the terms of the Sanofi Agreement, the Company agreed to generate, develop, manufacture and commercialize IgM antibodies directed to six primary targets, three of which were oncology targets and three of which were immunology targets.

In April 2024, Sanofi exercised its right to terminate the oncology collaboration targets effective June 2024. As a result of this termination, the Company has no further obligations to conduct research and development activities for such terminated targets and Sanofi retains no substitution rights for such terminated targets, pursuant to the terms of the agreement, and the collaboration will now focus exclusively on the immunology collaboration targets. The termination of the oncology targets will not affect any rights and obligations under the Sanofi Agreement with respect to the immunology targets.

For each immunology target collaboration program, the Company will continue to lead research and development activities, and assume related costs, through the completion of the first Phase 1 clinical trials for up to two candidates directed to each immunology target, after which Sanofi will be responsible for all future development and commercialization activities and related costs, in exchange for up to $1.065 billion in aggregate development, regulatory and commercial milestones per immunology target. Following the completion of the first Phase 1 clinical trials for each immunology target, Sanofi will be responsible for subsequent development activities, commercialization efforts, and related costs. The Company is eligible to receive tiered high single-digit to low-teen royalties on global net sales for licensed products related to immunology targets, subject to certain reductions and offsets.

Subject to earlier expiration in certain circumstances, the Sanofi Agreement expires on a licensed product-by-licensed product and country-by-country basis until the expiration of the applicable profit and loss share term or royalty term, as the case may be. Sanofi has the right to terminate the Sanofi Agreement on an immunology collaboration target-by-immunology collaboration target basis or country-by-country basis with or without cause, upon specified prior notice.

At the inception of the Sanofi Agreement, the Company identified promised goods and services, which consisted of the granting of intellectual property licenses and the performance of specified research, development and other various activities. The Company determined that for each of the six targets, the identified promised goods and services were not distinct from each other on a target-by-target basis. The licenses, considered to be functional intellectual property, were determined to not be capable of being distinct due to the specialized nature of the research, development, and other activities to be provided by the Company. Accordingly, the promised goods and services were combined together as one single performance obligation, on a target-by-target basis. The Company determined that the underlying promised goods and services for each of the six targets were both capable of being distinct and distinct within the context of the contract from each of the other targets. Therefore, the Company concluded that there were six performance obligations in the Sanofi Agreement, one for each target, that were comprised of the underlying promised goods and services. Other components and options within the Sanofi Agreement were determined to not provide Sanofi with free or discounted goods or services and therefore did not constitute a material right or were deemed immaterial in the context of the contract.

To determine the transaction price, the Company evaluates all the payments to be received during the duration of the contract. In May 2022, the Company received a $150.0 million upfront payment as part of the Sanofi Agreement. Additionally, in April 2022, Sanofi purchased non-voting common stock in connection with the Company's public common stock offering (see Note 8 – Stockholders' Equity). The Company concluded that at inception and as of December 31, 2024, the transaction price was $150.0 million and was

comprised solely of the fixed non-refundable upfront payment. No consideration received from Sanofi as part of the April 2022 offering was deemed necessary to include in the transaction price as Sanofi purchased the shares at the same offering price as the other participating investors.

The potential development and regulatory milestone payments that the Company is eligible to receive were excluded from the transaction price, as the milestone amounts were fully constrained, since the milestones relate to successful achievement of certain development results and regulatory approvals, which might not be achieved. The Company determined that the royalties and commercial milestone payments relate predominantly to the license of intellectual property and are therefore excluded from the transaction price under the sales- or usage-based royalty exception of ASC 606. The Company will reevaluate the transaction price, including all constrained amounts, at the end of each reporting period and as uncertain events are resolved or other changes in circumstances occur, and the Company will adjust its estimate of the transaction price as necessary. The Company will recognize the royalties and commercial milestone payments as revenue when the associated sales occur, and relevant sales-based thresholds are met.

At the inception of the Sanofi Agreement, the Company allocated the transaction price based on the estimated SSP of each of the six performance obligations. The Company determined the SSP for each of the six performance obligations based on the estimated costs to complete the underlying activities of each performance obligation and included factors such as forecasted internal costs, estimated third-party expenditures, development timelines and scenarios, probability of target failures and selection of substitute targets, and program-specific factors. These estimated cost forecasts were based on observable data for both market and entity specific factors, such as considering the actual and expected costs of the Company's existing research and development programs and adjusting for factors specific to the targets identified.

The Company recognizes revenue using an input method of costs incurred as a percentage of total estimated costs for each of the performance obligations under the contract. Costs consist primarily of internal personnel costs and third-party contract expenses related to the programs of the Sanofi Agreement. The cumulative effect of revisions to estimated costs to complete the Company's performance obligations is recorded in the period in which changes are identified and amounts can be reasonably estimated.

The Company determined that Sanofi's exercise of its right to terminate the oncology collaboration targets in April 2024 was a contract modification because it changed the scope of the contract by reducing the number of performance obligations under the agreement. The remaining performance obligations relating to the three immunology collaboration targets are not distinct from themselves before and after the contract modification occurred; however, they are distinct from the terminated oncology target performance obligations. As a result, the Company allocated the unrecognized transaction price to the three remaining performance obligations based on their relative estimated SSP and calculated a cumulative catch-up adjustment of $0.8 million, which was recognized as collaboration revenue upon the contract modification date.

For the year ended December 31, 2024 and 2023, the Company recognized collaboration revenue related to the Sanofi Agreement of $2.7 million and $2.1 million. As of December 31, 2024 and 2023, $144.1 million and $146.8 million was recorded as deferred revenue related to the Sanofi Agreement, respectively, of which $2.7 million and $3.8 million was current, on the balance sheets. The deferred revenue is expected to be recognized over the research and development period of the programs through the completion of Phase 1 clinical trials.

Contract Balances from Customer Contract

The timing of revenue recognition, billings and cash collections results in contract assets and contract liabilities on the balance sheets. The Company recognizes license and development receivables based on billed services, which are settled upon reimbursement. When consideration is received, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a contract, a contract liability is recorded. Contract liabilities are recognized as revenue after control of the goods or services is transferred to the customer and all revenue recognition criteria have been met.

The following tables present changes in the Company's customer contract liabilities for the periods presented (in thousands):

Year Ended December 31, 2024	December 31, 2023	Additions	Deductions	December 31, 2024
Contract liabilities:				
Deferred revenue	$ 146,801	$ —	$ (2,679)	$ 144,122

Year Ended December 31, 2023	December 31, 2022	Additions	Deductions	December 31, 2023
Contract liabilities:				
Deferred revenue	$ 148,931	$ —	$ (2,130)	$ 146,801

The Company had no customer contract assets during the years ended December 31, 2024 and 2023.

Note 10. Stock-Based Compensation

2010 Stock Plan (as Amended and Restated)

The 2010 Stock Plan (the 2010 Plan) was originally adopted by the Company's Board of Directors and approved by the Company's stockholders in November 2010. The 2010 Plan was amended and restated in December 2017 and April 2019. The 2010 Plan allowed the Company to provide incentive stock options, within the meaning of Section 422 of the Code, nonstatutory stock options and stock purchase rights to eligible employees, consultants and directors and any parent or subsidiary of the Company. The 2010 Plan was terminated in 2019 and the Company will not grant any additional awards under the 2010 Plan. However, the 2010 Plan will continue to govern the terms and conditions of the outstanding awards previously granted under the 2010 Plan.

2018 Omnibus Incentive Plan (as Amended and Restated)

In September 2019, the Company adopted an amendment and restatement of the 2018 Omnibus Incentive Plan (the 2018 Plan) which provides for the grant of incentive stock options, within the meaning of Section 422 of the Code to employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units (RSUs), stock appreciation rights, performance units, and performance shares to employees, directors, and consultants of the Company.

Options granted under the 2018 Plan expire no later than 10 years from the date of grant. The exercise price of options granted under the 2018 Plan must at least be equal to the fair market value of the Company's common stock on the date of grant. With respect to any participant who owns more than 10% of the voting power of all classes of the Company's outstanding stock, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. Employee stock options generally vest over a four year period.

Awards granted under the 2018 Plan expire no later than 10 years from the date of the grant. Awards outstanding as of December 31, 2024 generally vest over four years.

Subject to an annual evergreen increase and adjustment in the case of certain capitalization events, the Company initially reserved 4,384,000 shares of the Company's common stock for issuance pursuant to awards under the 2018 Plan. The 2018 Plan is administered by the Compensation Committee of the Company's Board of Directors. The number of shares of the Company's common stock available for issuance under the 2018 Plan will also include an annual increase on the first day of each fiscal year beginning with the 2020 fiscal year, equal to the least of (i) 8,768,800 shares, (ii) 4% of the Company's common stock and non-voting common stock outstanding at December 31 of the immediately preceding year, or (iii) such number of shares as determined by the Company's Board of Directors. On June 23, 2023, the Company's stockholders approved an amendment and restatement to the 2018 Plan, which provided for an increase in the number of shares of common stock reserved for issuance thereunder by 2,160,000 shares.

As of December 31, 2024, 4,416,534 shares of common stock remained available for issuance under the 2018 Plan. Effective January 1, 2025, the number of shares of common stock available under the 2018 Plan increased by 2,385,497 shares to 6,802,031 shares pursuant to the evergreen provision of the 2018 Plan.

2019 Employee Stock Purchase Plan

The 2019 Employee Stock Purchase Plan (the ESPP) became effective in September 2019. The ESPP is intended to have two components: a component that is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code (the 423 Component) and a component that is not intended to qualify (the Non-423 Component). The ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 15% of their eligible compensation. At the end of each offering period, employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock at the beginning of the offering period or at the end of each applicable purchase period.

Subject to adjustment in the case of certain capitalization events, a total of 280,000 common shares of the Company were available for purchase at adoption of the ESPP. Pursuant to the ESPP, the annual share increase pursuant to the evergreen provision is determined based on the least of (i) 560,000 shares, (ii) 1% of the Company's common stock and non-voting common stock outstanding at December 31 of the immediately preceding year, or (iii) such number of shares as determined by the Company's Board of Directors.

As of December 31, 2024, 1,780,167 shares of common stock remained available for issuance under the ESPP. Effective January 1, 2025, the number of shares of common stock available under the ESPP increased by 560,000 shares to 2,340,167 shares pursuant to the evergreen provision of the ESPP.

Stock Option Exchange

On June 20, 2024, the Company commenced a stock option exchange program (the Exchange Offer) pursuant to which eligible employees were provided the opportunity to exchange eligible stock options for restricted stock units (RSUs). The eligible options had exercise prices equal to or greater than $17.70 per share, were granted on or prior to March 1, 2023, and could be exchanged into a number of RSUs with an aggregate fair value substantially similar to the aggregate fair value of the options surrendered, subject to a 2-for-1 exchange ratio floor. The Exchange Offer concluded on July 19, 2024.

In connection with the Exchange Offer, the Company canceled 1,583,305 eligible options and granted 657,427 replacement RSUs with no incremental compensation expense associated with those RSUs issued in exchange for options. The unamortized stock-compensation expense from the exchanged options will be amortized over the vesting period of the replacement RSUs. The RSUs vest 50% on either the 1-year anniversary or 18-months after the exchange date and then quarterly thereafter over a total vesting period of two to three years, depending on the vesting status of the exchanged options, in each case subject to the continued service of the employees to the Company through the applicable vesting date.

Stock Options

The following table summarizes stock option activity:

	Shares Issuable Under Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2023	6,766,340	$ 27.81	7.0	$ 6,823
Granted	1,922,298	$ 10.81		
Exercised	(329,430)	$ 4.77		
Forfeited / Canceled	(2,797,545)	$ 41.60		
Outstanding as of December 31, 2024	5,561,663	$ 16.36	5.9	$ 3,460
Options exercisable as of December 31, 2024	3,994,820	$ 18.51	4.8	$ 3,455

Restricted Stock Units (RSUs)

The following table summarizes restricted stock unit activity:

	Outstanding		Vested and Deferred Release	
	Shares of Common Stock Issuable for RSUs	Weighted-Average Grant Date Fair Value	Shares of Common Stock Issuable for RSUs	Weighted-Average Grant Date Fair Value
As of December 31, 2023	658,792	$ 13.77	—	$ —
Granted	2,970,214	$ 11.01	—	$ —
Vested and deferred release	—	$ —	41,998	$ 9.25
Vested and released	(485,792)	$ 11.26	—	$ —
Forfeited	(625,459)	$ 10.90	—	$ —
As of December 31, 2024	2,517,755	$ 11.68	41,998	$ 9.25

IGM Biosciences, Inc.
Notes to Financial Statements — Continued

Stock-Based Compensation Expense

Stock-based compensation expense recorded related to the 2010 Plan, 2018 Plan, and ESPP was recorded in the statements of operations and allocated as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Research and development	$ 17,533	$ 27,499	$ 25,620
General and administrative	20,733	19,048	19,090
Total stock-based compensation expense [(1)]	$ 38,266	$ 46,547	$ 44,710

(1) Stock-based compensation expense for the year ended December 31, 2024 includes the modification of two former employees' equity awards. See Note 12 – Restructuring Charges for additional information.

As of December 31, 2024, the Company had a total of $17.3 million and $27.0 million of unrecognized stock-based compensation expense for options outstanding and restricted stock unit awards, respectively, which is expected to be recognized over a weighted-average period of 2.5 and 2.3 years, respectively.

The aggregate intrinsic value of options exercised for the years ended December 31, 2024, 2023, and 2022 was $2.5 million, $0.9 million, and $4.6 million, respectively. Intrinsic values of options exercised are calculated as the difference between the exercise price of the underlying options and the fair value of the common stock on the date of exercise. Intrinsic values of options outstanding are calculated as the difference between the exercise price of the underlying options and the fair value of the common stock as of the reporting date.

For the years ended December 31, 2024, 2023, and 2022, the weighted-average grant date fair value of options granted was $8.53, $10.62, and $13.31, respectively.

In determining the fair value of the stock-based awards, the Company uses the Black-Scholes option-pricing model and assumptions discussed below. Each of these inputs is subjective and generally requires judgment to determine.

Expected Term

The Company's expected term represents the period that the Company's stock-based awards are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term). The Company utilizes this method due to lack of historical exercise data and the plain-vanilla nature of the Company's stock-based awards.

Expected Volatility

Since the Company was privately held through September 2019, it alone does not have the relevant company-specific historical data to support its expected volatility. As such, the Company has used an average of expected volatilities based on the volatilities of a representative group of publicly traded biopharmaceutical companies over a period equal to the expected term of the stock option grants. Subsequent to the Company's initial public offering, it began to consider the Company's own historic volatility. However, due to its limited history as a public company, the Company still uses peer company data to assist in this analysis. For purposes of identifying comparable companies, the Company selected companies with comparable characteristics to it, including enterprise value, risk profiles, position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. The historical volatility data was computed using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of the stock-based awards. The Company intends to consistently apply this process using the same or similar comparable entities until a sufficient amount of historical information regarding the volatility of the Company's own share price becomes available.

Risk-Free Interest Rate

The risk-free interest rate is based on the Treasury Constant Maturities as provided by the Federal Reserve in effect at the time of grant for periods corresponding with the expected term of option.

Expected Dividend

The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

The fair value of employee stock options granted under the 2018 Plan and the shares available for purchase under the ESPP were determined using the Black-Scholes option-pricing model. The following summarizes the weighted-average assumptions used in calculating the fair value of the awards:

	Year Ended December 31,		
	2024	2023	2022
2018 Plan			
Expected term (in years)	6.1	6.0	6.0
Expected volatility	95.5%	92.3%	87.1%
Risk-free interest rate	4.1%	3.5%	2.3%
Expected dividend yield	—	—	—
ESPP			
Expected term (in years)	0.5	0.5	0.5
Expected volatility	51.4%	46.7%	54.4%
Risk-free interest rate	5.0%	5.4%	3.5%
Expected dividend yield	—	—	—

Note 11. Defined Contribution Plan

The Company sponsors a 401(k) retirement plan for its employees. This plan provides for tax-deferred salary deductions for all employees. Employee contributions are voluntary. Employees may contribute up to 100% of their annual compensation to this plan, as limited by an annual maximum amount as determined by the IRS. During the years ended December 31, 2024 and 2023, the Company provided $1.5 million and $1.8 million in matching contributions to the 401(k) plan. There were no matching contributions in the year ended December 31, 2022.

Note 12. Restructuring Charges

In September 2024, the Company announced a strategic pivot to focus exclusively on autoimmunity. The Company also announced an extension of cash runway, driven by a reduction in workforce and a reduction in future spending on the research and development of aplitabart and other oncology candidates (the 2024 Restructuring). The 2024 Restructuring activities are expected to be substantially complete by June 30, 2025.

In connection with the 2024 Restructuring, the Company recognized restructuring charges of $14.2 million during the year ended December 31, 2024. The restructuring charges included severance and one-time termination payments of $5.5 million, non-cash incentive and stock-based compensation expense of $8.4 million, and contract termination and other costs of $0.3 million.

The incentive and stock-based compensation charges of $8.4 million, partially consisted of $9.4 million in stock-based compensation expense resulting from the modification of two former employees' equity awards. As part of the 2024 Restructuring, the Company's Chief Executive Officer (CEO) and Chief Scientific Officer (CSO) resigned and entered into Transition and Consulting Agreements (TC Agreements) to provide consulting services through September 2026 and March 2026, respectively. Pursuant to the original terms of the awards, the CEO and CSO will continue to vest in their outstanding awards through the termination dates of the consulting agreements, subject to certain terms and conditions. In accordance with ASC 718, the Company recognized expense related to all awards expected to vest over the duration of the TC Agreements immediately as an equity-based severance cost as the consulting services are not considered substantive. Additionally, the CEO and CSO will receive cash payments of approximately $0.8 million and $0.5 million, respectively, under the TC Agreements, which were recognized as severance and one-time termination expenses upon approval of the agreements. The stock-based compensation expense was offset by a $1.0 million from the forfeiture of equity awards and the reversal of previously recognized non-cash incentive compensation expense. The Company recorded these restructuring charges based on each former employee’s classification within the research and development and general and administrative operating expense categories on its statement of operations.

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Notes to Financial Statements — Continued

In December 2023, the Company announced a strategic pipeline prioritization. The Company also announced an extension of cash runway, driven by a reduction in workforce of approximately 22% and a suspension of clinical development activities for certain product candidates in specific indications (2023 Restructuring), and recognized $1.8 million in restructuring charges during the year ended December 31, 2023. Headcount and all severance and one-time termination payments of $2.4 million were completed by March 31, 2024.

In connection with the 2024 Restructuring and 2023 Restructuring, the Company recognized restructuring charges of $14.4 million during the year ended December 31, 2024.

The following table summarizes the changes in the Company's accrued restructuring balance related to the 2024 Restructuring and 2023 Restructuring in the balance sheets (in thousands):

	Beginning Balance December 31, 2023	Charges	Payments	Ending Balance December 31, 2024
Accrued severance	$ 2,397	$ 5,538	$ (4,598)	$ 3,337
Accrued contract termination costs	—	264	(235)	29
Total accrued restructuring liability	$ 2,397	$ 5,802	$ (4,833)	$ 3,366

	Beginning Balance December 31, 2022	Charges	Payments	Ending Balance December 31, 2023
Accrued severance	$ —	$ 3,732	$ (1,335)	$ 2,397
Accrued contract termination costs	—	—	—	—
Total accrued restructuring liability	$ —	$ 3,732	$ (1,335)	$ 2,397

As of December 31, 2024 and December 31, 2023, $3.0 million and $2.4 million of the restructuring liability, respectively, was classified as current within accrued liabilities and $0.4 million of the restructuring liability as of December 31, 2024 was classified as non-current within other liabilities on the balance sheets. There was no non-current restructuring liability as of December 31, 2023.

A summary of the charges related to the restructuring activities is as follows (in thousands):

	Year Ended December 31, 2024			
	Severance and Related Compensation	Incentive and Stock-Based Compensation	Contract Termination and Other Costs	Total Restructuring Costs
Research and development	$ 3,699	$ 1,633	$ 332	$ 5,664
General and administrative	1,843	6,750	106	8,699
Total	$ 5,542	$ 8,383	$ 438	$ 14,363

	Year Ended December 31, 2023			
	Severance and Related Compensation	Incentive and Stock-Based Compensation	Contract Termination and Other Costs	Total Restructuring Costs
Research and development	$ 3,260	$ (1,531)	$ —	$ 1,729
General and administrative	472	(375)	—	97
Total	$ 3,732	$ (1,906)	$ —	$ 1,826

Note 13. Income Taxes

Income Taxes

During the years ended December 31, 2024 and 2022, the Company did not recognize an income tax provision. During the year ended December 31, 2023, the Company recognized an income tax provision of $0.7 million, representing an effective tax rate of (0.3)%. The decrease in the income tax provision for the year ended December 31, 2024, as compared to the same period in 2023 was primarily due to recognizing deferred income in 2023 from the $150.0 million Sanofi upfront payment received in 2022 (See Note 9 – Sanofi Agreement).

The following is a reconciliation of the statutory federal income tax rate to the Company's effective tax rate:

	Year Ended December 31,		
	2024	2023	2022
Federal tax at statutory rate	21.0%	21.0%	21.0%
State tax, net of federal benefit	(3.9)	5.8	5.3
Research and development credits	3.5	4.9	4.4
Stock-based compensation	(2.4)	(1.5)	(1.1)
Other	—	(0.2)	—
Change in valuation allowance	(18.2)	(30.3)	(29.6)
Effective income tax rate	0.0%	(0.3)%	—%

Deferred tax assets and liabilities consist of the following (in thousands):

	December 31,	
	2024	2023
Deferred tax assets:		
Net operating loss carryforwards	$ 100,135	$ 73,437
Accrued liabilities and reserves	5,749	5,993
Stock-based compensation	17,959	19,111
Intangible assets	5,181	7,102
Lease liabilities	10,092	11,692
Research and development credits	53,283	44,201
Capitalized research and development expenses	87,618	77,914
Deferred revenue	32,190	40,061
Total deferred tax assets	312,207	279,511
Deferred tax liabilities:		
Property and equipment	(2,543)	(2,290)
Right-of-use assets	(8,604)	(9,759)
Total deferred tax liabilities	(11,147)	(12,049)
Valuation allowance	(301,060)	(267,462)
Net deferred tax assets	$ —	$ —

The provisions of ASC Topic 740, *Accounting for Income Taxes* (Topic 740), require an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. For the years ended December 31, 2024 and 2023, based on all available objective evidence, including the existence of cumulative losses, the Company determined that it was not more likely than not that the net deferred tax assets were fully realizable. Accordingly, the Company established a full valuation allowance against its deferred tax assets. The Company intends to maintain a full valuation allowance on net deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance. During the years ended December 31, 2024 and 2023, the valuation allowance increased by $33.6 million, and $78.3 million, respectively.

At December 31, 2024, the Company had net operating loss carryforwards available to reduce future taxable income, if any, for federal and state income tax purposes of approximately $325.4 million and $461.2 million, respectively. The federal net operating loss carryforwards can be carried forward indefinitely, subject to an annual limitation of 80% of taxable income. The state net operating loss carryforwards are subject to expire in various years, with the first expiration beginning in 2036.

At December 31, 2024, the Company also had federal and California research and development tax credit carryforwards of $46.0 million and $23.5 million, respectively, available to offset future income tax, if any. The federal credit carryforwards begin expiring in 2038, and the California credits can be carried forward indefinitely.

Under Section 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change attributes, such as research tax credits, to offset its post-change income may be limited. In general, an "ownership change" will occur if there is a cumulative change in the Company's ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Therefore, certain of the Company's carryforward tax attributes may be subject to an annual limitation regarding their utilization against taxable income in future periods. The Company has completed a Section 382 study and believes it has experienced two changes in ownership. As a result, some of the federal and state NOL carryforwards and tax credit carryforwards may expire before being applied to reduce future income tax liabilities.

Uncertain Tax Positions

The Company adopted the provisions of Topic 740, which requires companies to determine whether it is "more likely than not" that a tax position will be sustained upon examination by the appropriate taxing authorities before any tax benefit can be recorded in the financial statements. It also provides guidance on the recognition, measurement, classification and interest and penalties related to uncertain tax positions.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits (in thousands):

	December 31,		
	2024	2023	2022
Beginning balance	$ 10,569	$ 6,916	$ 4,075
Increases for tax positions related to prior years	—	1	—
Decreases for tax positions related to prior years	(1)	—	(47)
Additions for tax positions related to current year	2,066	3,652	2,888
Ending balance	$ 12,634	$ 10,569	$ 6,916

The unrecognized tax benefits, if recognized, would not affect the effective income tax rate due to the valuation allowance that currently offsets deferred tax assets. No interest or penalties were accrued as of December 31, 2024. The Company does not expect the unrecognized tax benefits to change significantly over the next twelve months.

The Company files U.S. federal and various state income tax returns. For U.S. federal and state income tax purposes, the statute of limitations currently remains open for the years ending December 31, 2021 to present and December 31, 2020 to present, respectively. In addition, all of the net operating losses and research and development credit carryforwards that may be utilized in future years remain subject to examination. The Company is not currently under examination by income tax authorities in any jurisdiction.

Note 14. Net Loss Per Share Attributable to Common Stockholders

Basic and diluted net loss per share is computed by dividing net loss by the weighted-average number of common stock and pre-funded warrants outstanding for the period. Shares of common stock into which the pre-funded warrants may be exercised are considered outstanding for the purposes of computing net loss per share because the shares may be issued for little or no consideration, are fully vested, and are exercisable after the original issuance date. For periods in which the Company generated a net loss, the Company does not include the potential impact of dilutive securities in diluted net loss per share, as the impact of these items is anti-dilutive.

The following equity instruments were excluded from the calculation of diluted net loss per share because their effect would have been anti-dilutive for the periods presented:

	December 31,	
	2024	2023
Stock options, issued and outstanding	5,561,663	6,766,340
Estimated shares issuable under the employee stock purchase plan	46,402	127,658
Unreleased restricted stock units	2,559,753	658,792
Total	8,167,818	7,552,790

Note 15. Related Party Transactions

In August 2024, a non-employee member of the Company's Board of Directors entered into a consulting agreement with the Company, under which the board member would receive $250,000 per year for consulting services and receive 125,000 shares of RSUs with quarterly vesting through April 30, 2026. The Company paid $0.1 million during the year ended December 31, 2024 to the board member under the consulting agreement. As of December 31, 2024, the Company had no outstanding liability to the related party board member.

In September 2024 as part of the 2024 Restructuring, the Company entered into TC Agreements with two former employees (See Note 12 - Restructuring Charges for additional information). The Company paid $0.2 million during the year ended December 31, 2024 under the TC Agreements. As of December 31, 2024, the Company had an outstanding liability of $1.1 million to the related parties associated with the TC Agreements.

Note 16. Segment Reporting

The Company conducts business as a single operating segment for its IgM therapeutics, which is the business of developing engineered IgM antibodies for the treatment of autoimmune and inflammatory diseases. The Company's chief executive officer, who is the chief operating decision maker ("CODM"), reviews financial information on an aggregate basis for allocating and evaluating financial performance. The single operating segment is further based upon the Company's organizational and management structure and other factors.

The key measure of segment profit and loss that the CODM uses to allocate resources and assess performance is the Company's net loss, which is utilized to evaluate the progress of the Company's various product candidates. The table below shows a reconciliation of the Company's net loss, including the significant expense categories regularly provided to and reviewed by the CODM, as computed under U.S. GAAP to the Company's total net loss in the statements of operations (in thousands):

	Year Ended December 31,	
	2024	2023
Operating revenue by external customer:		
Sanofi collaboration revenue	$ 2,679	$ 2,130
Operating expenses:		
Research and development		
Deprioritized clinical programs:		
Imvotamab – Autoimmune programs	$ 15,750	$ 9,415
Aplitabart	28,869	34,766
Other deprioritized programs	5,193	21,491
Preclinical and other R&D [1]	24,856	38,052
Personnel	61,616	87,553
Depreciation and facilities	24,570	24,242
General and administrative:		
Personnel	36,350	35,075
Other general and administrative [2]	14,055	14,997
Other income (expense):		
Interest income	12,785	17,743
Other expense	—	(20)
Income tax expense	—	(678)
Net loss	$ (195,795)	$ (246,416)

[1] Preclinical and other R&D expense includes sample analysis, preclinical testing, R&D licensing agreements, and drug product services.

[2] Other general and administrative expense includes professional services, accounting services, software, rent, and other overhead expense.

Assets provided to the CODM are consistent with those reported on the balance sheets.

All long-lived assets are maintained in, and all losses and revenue are attributable to, the United States of America.

Note 17. Subsequent Events

In January 2025, the Company announced a strategic update to halt further development of imvotamab and IGM-2644. The Company also announced a reduction in workforce by approximately 73% (the 2025 Restructuring) to preserve cash. The Company estimates it will incur total restructuring charges between $0.7 million and $2.0 million, consisting of cash expenditures between $4.1 million and $5.4 million for severance and one-time termination costs offset by non-cash compensation and stock-based compensation expense credit of $3.4 million. The Company expects to recognize substantially all restructuring charges in the first quarter of 2025. The Company is continuing to evaluate the full impact of the 2025 Restructuring and may also incur additional costs due to events that occur as a result of, or that are associated with, the 2025 Restructuring.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer, our principal executive officer and principal financial officer, respectively, conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that as of such date our disclosure controls and procedures were effective at a reasonable assurance level (a) to ensure that information that we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and (b) to ensure that information required to be disclosed by us in reports filed or submitted under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework established in "Internal Control-Integrated Framework (2013)", issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2024.

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm on our internal control over financial reporting, as such report is not required due to our status as a smaller reporting company.

Changes in Internal Control over Financial Reporting

There was no change in our internal controls over financial reporting during the quarter ended December 31, 2024, identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Item 9B. Other Information.

During our last fiscal quarter, no director or officer, as defined in Rule 16a-1(f), adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement," each as defined in Regulation S-K Item 408.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 11. Executive Compensation.

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 14. Principal Accounting Fees and Services.

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as a part of this Annual Report on Form 10-K:

(1) Financial Statements

The financial statements filed as part of this Annual Report on Form 10-K are listed in the "Index to Financial Statements" under Part II, Item 8 of this Annual Report on Form 10-K.

(2) Financial Statement Schedules

Financial statement schedules have been omitted in this Annual Report on Form 10-K because they are not applicable, not required under the instructions, or the information requested is set forth in the financial statements or related notes thereto.

(3) Exhibits

The list of exhibits filed with this Annual Report on Form 10-K is set forth in the Exhibit Index preceding the signature page and is incorporated herein by reference or filed with this Annual Report on Form 10-K, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

Item 16. Form 10-K Summary.

None.

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended	10-Q	001-39045	3.1	August 14, 2024
3.2	Amended and Restated Bylaws of the Registrant.	8-K	001-39045	3.1	March 21, 2023
4.1	Specimen common stock certificate of the Registrant.				
4.2	Amended and Restated Investor Rights Agreement, by and among the Registrant and certain of its stockholders, dated as of June 28, 2019.	S-1	333-233365	4.2	August 19, 2019
4.3	Description of Securities	10-K	001-39045	4.3	March 29, 2022
4.4	Form of Pre-Funded Warrant	8-K	001-39045	4.1	December 9, 2020
4.5	Form of Registration Rights Agreement, by and between the Registrant and certain securityholders.	8-K	001-39045	10.1	December 7, 2020
10.1+	Amended and Restated 2010 Stock Plan and forms of agreements thereunder.	S-1	333-233365	10.1	August 19, 2019
10.2+	2018 Omnibus Incentive Plan and forms of agreements thereunder.	S-1/A	333-233365	10.2	September 3, 2019
10.3+	Amended and Restated 2018 Omnibus Incentive Plan, amended June 23, 2023, and forms of agreements thereunder.				
10.4+	Amended and Restated 2019 Employee Stock Purchase Plan, amended October 30, 2023, and forms of agreements thereunder.	10-K	001-39045	10.4	March 7, 2024
10.5+	Form of Indemnification Agreement, by and between the Registrant and each of its directors and executive officers.	S-1/A	333-233365	10.5	September 3, 2019
10.6+	Confirmatory Employment Letter, by and between Fred Schwarzer and the Registrant, effective as of August 19, 2019.	S-1	333-233365	10.6	August 19, 2019
10.7+	Confirmatory Employment Letter, by and between Bruce Keyt and the Registrant, effective as of August 19, 2019.	S-1	333-233365	10.9	August 19, 2019
10.8+	Confirmatory Employment Letter, by and between Misbah Tahir and the Registrant, effective as of August 19, 2019.	S-1	333-233365	10.10	August 19, 2019
10.9+	Employment Agreement, by and between Lisa Decker and the Registrant, dated as of February 25, 2021.	10-Q	001-39045	10.1	May 6, 2021
10.10+	Employment Agreement by and between Chris Takimoto and the Registrant, dated as of July 29, 2021.	10-Q	001-39045	10.2	August 9, 2021
10.11+	Consulting Agreement, by and between the Registrant and William Strohl, Ph.D., dated August 8, 2024.	10-Q	001-39045	10.4	November 8, 2024
10.12+	Transition and Consulting Agreement, by and between the Registrant and Fred Schwarzer, dated September 30, 2024.	10-Q	001-39045	10.1	November 8, 2024
10.13+	Employment Agreement, by and between the Registrant and Mary Beth Harler, M.D., dated September 30, 2024.	10-Q	001-39045	10.2	November 8, 2024
10.14+	Transition and Consulting Agreement, by and between the Registrant and Bruce Keyt, dated October 1, 2024.	10-Q	001-39045	10.3	November 8, 2024
10.15+	Amended and Restated Change in Control and Severance Policy.	10-Q	001-39045	10.3	August 3, 2023
10.16+	Outside Director Compensation Policy (as amended and restated on February 26, 2024).	10-K	001-39045	10.12	March 7, 2024
10.17+	Executive Incentive Compensation Plan.	S-1	333-233365	10.13	August 19, 2019
10.18	Lease by and between Real Property Investments, LLC and the Registrant, dated February 27, 2019.	S-1	333-233365	10.14	August 19, 2019
10.19	Nominating Agreement, by and among 667, L.P., Baker Brothers Life Sciences, L.P. and the Registrant, dated as of June 28, 2019.	S-1	333-233365	10.15	August 19, 2019
10.20	Nominating Agreement, by and between Haldor Topsøe Holding A/S and the Registrant, dated as of June 28, 2019.	S-1	333-233365	10.16	August 19, 2019
10.21	Nominating Agreement, by and among Redmile Biopharma Investments II, L.P., RAF, L.P., Redmile Strategic Master Fund, LP and the Registrant, dated as of June 28, 2019.	S-1	333-233365	10.17	August 19, 2019

10.22	First Amendment to Lease between IGM Biosciences, Inc. and Real Property Investments, LLC effective July 1, 2021.	10-Q	001-39045	10.1	August 9, 2021
10.23*	Collaboration and License Agreement by and between the Registrant and Genzyme Corporation, dated March 28, 2022	8-K	001-39045	10.1	March 29, 2022
10.24	Common Stock Purchase Agreement, dated as of June 22, 2023, between the Registrant and RedCo II Master Fund, L.P.	8-K	001-39045	10.1	June 23, 2023
19.1	Insider Trading Policy and Guidelines with Respect to Certain Transactions in Securities.				
23.1	Consent of Independent Registered Public Accounting Firm.				
24.1	Power of Attorney (reference is made to the signature page hereto).				
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2†	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
97.1	Compensation Recovery Policy.	10-K	001-39045	97.1	March 7, 2024
101.INS	Inline XBRL Instance Document				
101.SCH	Inline XBRL Taxonomy Extension Schema with Embedded Linkbase Documents				
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)				

+ Indicates management contract or compensatory plan.
* Portions of this exhibit have been redacted in compliance with Regulation S-K Item 601(b)(10).
† The certifications attached as Exhibit 32.1 and Exhibit 32.2 that accompany this Annual Report on Form 10-K are not deemed filed with the SEC and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-K, irrespective of any general incorporation language contained in such filing.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized**.**

IGM Biosciences, Inc.

Date: March 6, 2025 By: /s/ Mary Beth Harler
Mary Beth Harler, M.D.
Chief Executive Officer
(Principal Executive Officer)

Date: March 6, 2025 By: /s/ Misbah Tahir
Misbah Tahir
Chief Financial Officer
(Principal Financial Officer)

Date: March 6, 2025 By: /s/ Steven Weber
Steven Weber
Senior Vice President, Corporate Controller
(Principal Accounting Officer)

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mary Beth Harler, Misbah Tahir, and Steven Weber, each of them as his true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him in his name, place or stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, 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 full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming that said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ Mary Beth Harler Mary Beth Harler, M.D.	Chief Executive Officer and Director (Principal Executive Officer)	March 6, 2025
/s/ Misbah Tahir Misbah Tahir	Chief Financial Officer (Principal Financial Officer)	March 6, 2025
/s/ Steven Weber Steven Weber	Senior Vice President, Corporate Controller (Principal Accounting Officer)	March 6, 2025
/s/ Felix Baker, Ph.D. Felix Baker, Ph.D.	Director	March 6, 2025
/s/ M. Kathleen Behrens, Ph.D. M. Kathleen Behrens, Ph.D.	Director	March 6, 2025
/s/ Julie Hambleton, M.D. Julie Hambleton, M.D.	Director	March 6, 2025
/s/ Michael Lee Michael Lee	Director	March 6, 2025
/s/ William Strohl, Ph.D. William Strohl, Ph.D.	Director	March 6, 2025
/s/ Elizabeth H.Z. Thompson, Ph.D. Elizabeth H.Z. Thompson, Ph.D.	Director	March 6, 2025
/s/ Christina Teng Topsøe Christina Teng Topsøe	Director	March 6, 2025
/s/ Jakob Haldor Topsøe Jakob Haldor Topsøe	Director	March 6, 2025

NUMBER

SHARES

INCORPORATED UNDER THE LAWS
OF THE STATE OF DELAWARE

CUSIP 449585 10 8

SEE REVERSE FOR CERTAIN
DEFINITIONS AND LEGENDS.

This certifies that

is the record holder of

FULLY PAID AND NON-ASSESSABLE SHARES OF VOTING COMMON STOCK, $0.01 PAR VALUE PER SHARE, OF

IGM BIOSCIENCES, INC.

transferable on the books of the corporation in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned by the Transfer Agent and registered by the Registrar.

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

Dated:

CHIEF EXECUTIVE OFFICER

IGM BIOSCIENCES, INC. CORPORATE SEAL 1993 DELAWARE

CHIEF FINANCIAL OFFICER

COUNTERSIGNED AND REGISTERED:
EQUINITI TRUST COMPANY, LLC

BY

AUTHORIZED SIGNATURE

TRANSFER AGENT
AND REGISTRAR

AMERICAN FINANCIAL PRINTING, INCORPORATED – MINNEAPOLIS

The Corporation shall furnish without charge to each stockholder who so requests a statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock of the Corporation or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Such requests shall be made to the Corporation's Secretary at the principal office of the Corporation.

KEEP THIS CERTIFICATE IN A SAFE PLACE. IF IT IS LOST, STOLEN, OR DESTROYED, THE CORPORATION WILL REQUIRE A BOND OF INDEMNITY AS A CONDITION TO THE ISSUANCE OF A REPLACEMENT CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	–	as tenants in common
TEN ENT	–	as tenants by the entireties
JT TEN	–	as joint tenants with right of survivorship and not as tenants in common
COM PROP	–	as community property

UNIF GIFT MIN ACT – _____ (Cust) Custodian _____ (Minor)
under Uniform Gifts to Minors Act _____ (State)

UNIF TRF MIN ACT – _____ (Cust) Custodian (until age ____)
_____ (Minor) under Uniform Transfers to Minors Act _____ (State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, _____ hereby sell(s), assign(s) and transfer(s) unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE.

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE.)

_____

_____

_____ shares

of the capital stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ attorney-in-fact

to transfer the said stock on the books of the within-named Corporation with full power of substitution in the premises.

Dated _____

X _____

X _____

NOTICE: THE SIGNATURE(S) TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME(S) AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATSOEVER.

Signature(s) Guaranteed:

By _____

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (BANKS, STOCKBROKERS, SAVINGS AND LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO SEC RULE 17Ad-15. GUARANTEES BY A NOTARY PUBLIC ARE NOT ACCEPTABLE. SIGNATURE GUARANTEES MUST NOT BE DATED.

Exhibit 10.3

IGM BIOSCIENCES, INC.
AMENDED AND RESTATED 2018 OMNIBUS INCENTIVE PLAN
(as amended and restated effective June 23, 2023)

1. Purposes of the Plan. The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide additional incentive to Employees, Directors and Consultants, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units and Performance Shares.

2. Definitions. As used herein, the following definitions will apply:

a. "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

b. "Applicable Laws" means the legal and regulatory requirements relating to the administration of equity-based awards and the related issuance of Shares thereunder, including but not limited to U.S. federal and state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any non-U.S. country or jurisdiction where Awards are, or will be, granted under the Plan.

c. "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.

d. "Award Agreement" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

e. "Board" means the Board of Directors of the Company.

f. "Change in Control" means the occurrence of any of the following events:

i. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection, (A) the acquisition of additional stock by any one Person, who is considered to own more than 50% of the total voting power of the stock of the Company will not be considered a Change in Control, and (B) if the stockholders of the Company immediately before such change in ownership continue to retain immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, the direct or indirect beneficial ownership of 50% or more of the total voting power of the stock of the Company or of the ultimate parent entity of the Company, such event will not be considered a Change in Control under this subsection (i). For this purpose, indirect beneficial ownership will include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company, as the case may be, either directly or through one or more subsidiary corporations or other business entities; or

ii. A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12-month period by Directors whose appointment or election is not endorsed by a

majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

iii. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company. Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Section 409A.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

g. "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder will include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

h. "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or a duly authorized committee of the Board, in accordance with Section 4 hereof.

i. "Common Stock" means the common stock of the Company.

j. "Company" means IGM Biosciences, Inc., a Delaware corporation, or any successor thereto.

k. "Consultant" means any natural person, including an advisor, engaged by the Company or a Parent or Subsidiary to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities, in each case, within the meaning of Form S-8 promulgated under the Securities Act, and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act.

l. "Director" means a member of the Board.

m. "Disability" means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

n. "Employee" means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director's fee by the Company will be sufficient to constitute "employment" by the Company.

o. "Exchange Act" means the Securities Exchange Act of 1934, as amended.

p. "Exchange Program" means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is increased or reduced. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

q. "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

i. For purposes of any Awards granted on the Registration Date, the Fair Market Value will be the initial price to the public as set forth in the final prospectus included within the registration statement in Form S-1 filed with the Securities and Exchange Commission for the initial public offering of the Company's Common Stock.

ii. For purposes of any Awards granted on any other date, the Fair Market Value will be the closing sales price for Common Stock as quoted on any established stock exchange or national market system (including without limitation the New York Stock Exchange, Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market) on which the Common Stock is listed on the date of determination (or the closing bid, if no sales were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable. If the determination date for the Fair Market Value occurs on a non-trading day (i.e., a weekend or holiday), the Fair Market Value will be such price on the immediately preceding trading day, unless otherwise determined by the Administrator. In the absence of an established market for the Common Stock, the Fair Market Value thereof will be determined in good faith by the Administrator.

The determination of fair market value for purposes of tax withholding may be made in the Administrator's discretion subject to Applicable Laws and is not required to be consistent with the determination of Fair Market Value for other purposes.

r. "Fiscal Year" means the fiscal year of the Company.

s. "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

t. "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

u. "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

v. "Option" means a stock option granted pursuant to the Plan.

w. "Outside Director" means a Director who is not an Employee.

x. "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

y. "Participant" means the holder of an outstanding Award.

z. "Performance Share" means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine pursuant to Section 10.

aa. "Performance Unit" means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10.

bb. "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

cc. "Plan" means this Amended and Restated 2018 Omnibus Incentive Plan.

dd. "Registration Date" means the effective date of the first registration statement that is filed by the Company and declared effective pursuant to Section 12(b) of the Exchange Act, with respect to any class of the Company's securities.

ee. "Restricted Stock" means Shares issued pursuant to a Restricted Stock award under Section 7 of the Plan, or issued pursuant to the early exercise of an Option.

ff. "Restricted Stock Unit" means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 8. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

gg. "Rule 16b-3" means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

hh. "Section 409A" means Code Section 409A, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

ii. "Securities Act" means the Securities Act of 1933, as amended.

jj. "Service Provider" means an Employee, Director or Consultant.

kk. "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

ll. "Stock Appreciation Right" means an Award, granted alone or in connection with an Option, that pursuant to Section 9 is designated as a Stock Appreciation Right.

mm. "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan.

a. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan and the automatic increase set forth in Section 3(b) of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is 12,067,912 Shares. The Shares may be authorized, but unissued, or reacquired Common Stock.

b. Automatic Share Reserve Increase. Subject to the provisions of Section 13 of the Plan, the number of Shares available for issuance under the Plan will be increased on the first day of each Fiscal Year beginning with the 2024 Fiscal Year and ending with the 2029 Fiscal Year, in an amount equal to the least of (i) 8,768,000 Shares, (ii) 4%

of the outstanding shares of common stock of the Company (including for this purpose both voting common stock and non-voting common stock) on the last day of the immediately preceding Fiscal Year or (iii) such number of Shares determined by the Board.

c. Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an Exchange Program, or, with respect to Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares, is forfeited to or repurchased by the Company due to failure to vest, the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights the forfeited or repurchased Shares), which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights, only Shares actually issued (i.e., the net Shares issued) pursuant to a Stock Appreciation Right will cease to be available under the Plan; all remaining Shares under Stock Appreciation Rights will remain available for future grant or sale under the Plan (unless the Plan has terminated). Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by the Company or are forfeited to the Company, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 13, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Sections 3(b) and 3(c).

d. Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

a. Procedure.

i. Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

ii. Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

iii. Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

b. Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

i. to determine the Fair Market Value;

ii. to select the Service Providers to whom Awards may be granted hereunder;

iii. to determine the number of Shares to be covered by each Award granted hereunder;

iv. to approve forms of Award Agreements for use under the Plan;

v. to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when

Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

vi. to institute and determine the terms and conditions of an Exchange Program;

vii. to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

viii. to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable non-U.S. laws or for qualifying for favorable tax treatment under applicable non-U.S. laws;

ix. to modify or amend each Award (subject to Section 18 of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards and to extend the maximum term of an Option (subject to Section 6(b) of the Plan regarding Incentive Stock Options);

x. to allow Participants to satisfy tax withholding obligations in such manner as prescribed in Section 14 of the Plan;

xi. to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

xii. to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award; and

xiii. to make all other determinations deemed necessary or advisable for administering the Plan.

c. Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards.

5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Stock Options.

a. Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate fair market value of the shares with respect to which incentive stock options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds $100,000, such options will be treated as nonstatutory stock options. For purposes of this Section 6(a), incentive stock options will be taken into account in the order in which they were granted. The fair market value of the shares will be determined as of the time the option with respect to such shares is granted.

b. Term of Option. The term of each Option will be stated in the Award Agreement. In the case of an Incentive Stock Option, the term will be 10 years from the date of grant or such shorter term as may be provided in the Award Agreement. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be 5 years from the date of grant or such shorter term as may be provided in the Award Agreement.

c. Option Exercise Price and Consideration.

i. Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, subject to the following:

1. In the case of an Incentive Stock Option

a. granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than 110% of the Fair Market Value per Share on the date of grant.

b. granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price will be no less than 100% of the Fair Market Value per Share on the date of grant.

2. In the case of a Nonstatutory Stock Option, the per Share exercise price will be no less than 100% of the Fair Market Value per Share on the date of grant.

3. Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than 100% of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

ii. Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

iii. Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise; (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or (8) any combination of the foregoing methods of payment.

d. Exercise of Option.

i. Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) a notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable withholding taxes). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

ii. Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for 3 months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

iii. Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for 12 months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

iv. Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of death (but in no event may the option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided such beneficiary has been designated prior to Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for 12 months following Participant's death. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

v. Tolling Expiration. A Participant's Award Agreement may also provide that:

1. if the exercise of the Option following the termination of Participant's status as a Service Provider (other than upon the Participant's death or Disability) would result in liability under Section 15(b), then the Option will terminate on the earlier of (A) the expiration of the term of the Option set forth in the Award Agreement, or (B) the 10th day after the last date on which such exercise would result in liability under Section 15(b); or

2. if the exercise of the Option following the termination of the Participant's status as a Service Provider (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of Shares would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (A) the expiration of the term of the Option or (B) the expiration of a period of 30 days after the termination of the Participant's status as a Service Provider during which the exercise of the Option would not be in violation of such registration requirements.

7. Restricted Stock.

a. Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

b. Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

c. Transferability. Except as provided in this Section 7 or the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

d. Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

e. Removal of Restrictions. Except as otherwise provided in this Section 7, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

f. Voting Rights. During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

g. Dividends and Other Distributions. During the Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise. If any such dividends or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

h. Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

8. Restricted Stock Units.

a. Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units under the Plan, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

b. Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit, or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws or any other basis determined by the Administrator in its discretion.

c. Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

d. Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may only settle earned Restricted Stock Units in cash, Shares, or a combination of both.

e. Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

9. Stock Appreciation Rights.

a. Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

b. Number of Shares. The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.

c. Exercise Price and Other Terms. The per share exercise price for the Shares to be issued pursuant to exercise of a Stock Appreciation Right will be determined by the Administrator and will be no less than 100% of the Fair Market Value per Share on the date of grant. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

d. Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

e. Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire 10 years from the date of grant or such shorter term as may be provided in the Award Agreement, as determined by the Administrator, in its sole discretion. Notwithstanding the foregoing, the rules of Section 6(d) relating to exercise also will apply to Stock Appreciation Rights.

f. Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

i. The difference between the Fair Market Value of a Share on the date of exercise and the exercise price; *multiplied by*

ii. The number of Shares with respect to which the Stock Appreciation Right is exercised. At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

10. Performance Units and Performance Shares.

a. Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

b. Value of Performance Units/Shares. Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

c. Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Service Providers. The time period during which the performance objectives or other vesting provisions must be met will be called the "Performance Period." Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. The Administrator may set performance objectives based upon the

achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

d. Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.

e. Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

f. Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

11. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed 3 months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then 6 months following the 1st day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

12. Transferability of Awards. Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award will contain such additional terms and conditions as the Administrator deems appropriate.

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

a. Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Award, and the numerical Share limits in Section 3 of the Plan.

b. Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

c. Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines subject to the restriction in the following paragraph, including, without limitation, that each Award be assumed or an equivalent option

or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. The Administrator will not be required to treat all Awards or Participants similarly in the transaction.

In the event that the successor corporation does not assume or substitute for the Award, the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met. In addition, if an Option or Stock Appreciation Right is not assumed or substituted in the event of a Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection (c), an Award will be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the Change in Control.

Notwithstanding anything in this Section 13(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

d. Outside Director Awards. With respect to Awards granted to an Outside Director, in the event of a Change in Control, then the Participant will fully vest in and have the right to exercise Options and/or Stock Appreciation Rights as to all of the Shares underlying such Award, including those Shares which would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met.

14. Tax.

a. Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof) or such earlier time as any tax withholding obligations are due, the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy U.S. federal, state, or local taxes, non-U.S. taxes, or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

b. Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (i) paying cash, (ii) electing to have the Company withhold otherwise deliverable cash or Shares having a fair market value not in excess of the maximum statutory amount required to be withheld, or (iii) delivering to the Company already-owned Shares having a fair market value not in excess of the maximum statutory amount required to be withheld. The fair market value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

c. Compliance With Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A. In no event will the Company (or any Parent or Subsidiary of the Company, as applicable) reimburse a Participant for any taxes imposed or other costs incurred as a result of Section 409A.

15. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider, nor will they interfere in any way with the Participant's right or the right of the Company (or any Parent or Subsidiary of the Company) to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

16. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

17. Term of Plan. Subject to Section 22 of the Plan, the Plan will become effective upon the later to occur of (i) its adoption by the Board or (ii) the business day immediately prior to the Registration Date. It will continue in effect for a term of 10 years from the date adopted by the Board, unless terminated earlier under Section 18 of the Plan.

18. Amendment and Termination of the Plan.

a. Amendment and Termination. The Administrator may at any time amend, alter, suspend or terminate the Plan.

b. Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

c. Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will materially impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

19. Conditions Upon Issuance of Shares.

a. Legal Compliance. Shares will not be issued pursuant to an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

b. Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

20. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any registration or other qualification of the Shares under any U.S. federal or state law, any non-U.S. law, or the rules and regulations of the Securities and Exchange

Commission, the stock exchange on which Shares of the same class are then listed, or any other governmental or regulatory body, which authority, registration, qualification or rule compliance is deemed by the Company's counsel to be necessary or advisable for the issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority, registration, qualification or rule compliance will not have been obtained.

21. Forfeiture Events.

a. All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Laws. In addition, the Administrator may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Administrator determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired Shares or other cash or property. Unless this Section 21 is specifically mentioned and waived in an Award Agreement or other document, no recovery of compensation under a clawback policy will give a Participant the right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company.

b. The Administrator may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award shall be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Such events may include, but shall not be limited to, termination of such Participant's status as Service Provider for cause or any act by a Participant, whether before or after such Participant's Termination Status Date that would constitute cause for termination of such Participant's status as a Service Provider.

c. If the Company is required to prepare an accounting restatement due to the material noncompliance of the Company, as a result of misconduct, with any financial reporting requirement under the securities laws, any Participant who knowingly or through gross negligence engaged in the misconduct, or who knowingly or through gross negligence failed to prevent the misconduct, and any Participant who is one of the individuals subject to automatic forfeiture under Section 304 of the Sarbanes-Oxley Act of 2002, shall reimburse the Company the amount of any payment in settlement of an Award earned or accrued during the 12 month period following the first public issuance or filing with the United States Securities and Exchange Commission (whichever first occurred) of the financial document embodying such financial reporting requirement.

22. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within 12 months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

IGM BIOSCIENCES, INC.
AMENDED AND RESTATED 2018 OMNIBUS INCENTIVE PLAN
FORM OF STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the IGM Biosciences, Inc. Amended and Restated 2018 Omnibus Incentive Plan (the "Plan") will have the same defined meanings in this Stock Option Agreement, which includes the Notice of Stock Option Grant (the "Notice of Grant"), the Terms and Conditions of Stock Option Grant attached hereto as Exhibit A, the Exercise Notice attached hereto as Exhibit B, and all other exhibits and appendices attached hereto (all together, the "Option Agreement").

NOTICE OF STOCK OPTION GRANT

Participant:

The undersigned Participant has been granted an Option to purchase Common Stock of IGM Biosciences, Inc. (the "Company"), subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Grant Number: _____

Date of Grant: _____

Vesting Commencement Date: _____

Number of Shares Granted: _____

Exercise Price per Share: _____

(in U.S. Dollars)

Total Exercise Price: _____

(in U.S. Dollars)

Type of Option: ____ Incentive Stock Option ____ Nonstatutory Stock Option

Term/Expiration Date: _____

Vesting Schedule:

Subject to accelerated vesting as set forth below or in the Plan, this Option will be exercisable, in whole or in part, in accordance with the following schedule: [_____]

As described in Section 1(b) of Exhibit A, even if an Option is granted and designated in the action granting the Option as an Incentive Stock Option ("ISO"), to the extent that its Fair Market Value causes it to exceed the $100,000 rule of Code Section 422(d) it will be treated as an Nonstatutory Stock Option ("NSO"). The Company's stock administration system splits such an intended Option that exceeds the $100,000 rule into one Option that is an ISO and another Option that is an NSO and the system generates a separate Option Agreement for each. To the extent that this Option is a component part of an intended Option that has been automatically split, the vesting schedule for this Option and the Option that is the other component part of the intended Option should be read together as having the vesting schedule described above. For avoidance of doubt, the first $100,000 of value to vest in a calendar year will be under the Option that is an ISO and the remainder will be under the Option that is an NSO.

Termination Period:

This Option will be exercisable for 3 months after Participant ceases to be a Service Provider, unless such termination is due to Participant's death, Disability or under circumstances described in Section 4(c) of Exhibit A. If Participant ceases to be a Service Provider due to Participant's death or Disability, this Option will be exercisable for 12 months after Participant ceases to be a Service Provider. Notwithstanding any provision in this paragraph, in no event may this

Option be exercised after the Term/Expiration Date as provided above and this Option may be subject to earlier termination as provided in Section 14 of the Plan.

By Participant's signature and the signature of the representative of the Company below, Participant and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and this Option Agreement, including the Terms and Conditions of Stock Option Grant, attached hereto as Exhibit A, all of which are made a part of this document. Participant acknowledges receipt of a copy of the Plan. Participant has reviewed the Plan and this Option Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option Agreement, and fully understands all provisions of the Plan and this Option Agreement. Participant hereby agrees to accept as binding, conclusive, and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and the Option Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT	IGM BIOSCIENCES, INC.
_____	_____
Signature	Signature
_____	_____
Print Name	Print Name
	_____
	Title

Address:

EXHIBIT A

TERMS AND CONDITIONS OF STOCK OPTION GRANT

1. Grant of Option.

(a) The Company hereby grants to the individual ("Participant") named in the Notice of Stock Option Grant of this Option Agreement (the "Notice of Grant") an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), subject to all of the terms and conditions in this Option Agreement and the Plan, which is incorporated herein by this reference. Subject to Section 18(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Option Agreement, the terms and conditions of the Plan will prevail.

(b) For U.S. taxpayers, the Option will be designated as either an Incentive Stock Option ("ISO") or a Nonstatutory Stock Option ("NSO"). If designated in the Notice of Grant as an ISO, this Option is intended to qualify as an ISO under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"). However, if this Option is intended to be an ISO, to the extent that it exceeds the $100,000 rule of Code Section 422(d) it will be treated as an NSO. Further, if for any reason this Option (or portion thereof) will not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a NSO granted under the Plan. In no event will the Administrator, the Company or any Parent or Subsidiary or any of their respective employees or directors have any liability to Participant (or any other person) due to the failure of the Option to qualify for any reason as an ISO.

(c) For non-U.S. taxpayers, the Option will be designated as an NSO.

2. Vesting Schedule. Except as provided in Section 3, the Option awarded by this Option Agreement will vest in accordance with the vesting provisions set forth in the Notice of Grant. Shares subject to this Option that are scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest in accordance with any of the provisions of this Option Agreement, unless Participant will have been continuously a Service Provider from the Date of Grant until the date such vesting occurs.

3. Administrator Discretion. The Administrator, in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the unvested Option at any time, subject to the terms of the Plan. If so accelerated, such Option will be considered as having vested as of the date specified by the Administrator.

4. Exercise of Option.

(a) Right to Exercise. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option Agreement.

(b) Method of Exercise. This Option is exercisable by delivery of an exercise notice (the "Exercise Notice") in the form attached as Exhibit B to the Notice of Grant or in a manner and pursuant to such procedures as the Administrator may determine, which will state the election to exercise the Option, the number of Shares in respect of which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice will be completed by Participant and delivered to the Company. The Exercise Notice will be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares and of any Tax Obligations (as defined in Section 6(a)). This Option will be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

(c) Termination for Cause. Notwithstanding anything else in the terms of this Option, if Participant ceases to be a Service Provider due to termination for Cause (as defined below) or if, following Participant's ceasing to be a Service Provider and during any period in which the Option otherwise would remain exercisable, Participant engages in any act that would constitute "Cause," then unless otherwise provided by the Committee or the Board, the Option shall

terminate and cease to be exercisable as of the date the Participant ceased to be a Service Provider or engaged in the act that constituted Cause. To facilitate the Committee or Board being able to make a decision with respect to whether a service relationship ceased for Cause, Participant will not be permitted to exercise any portion of the Option for 14 days after Participant ceases to be a Service Provider unless specifically authorized by the Committee or Board after Participant ceased to be a Service Provider. For purposes of this Option Agreement, "Cause" shall mean any of the following acts by Participant, as determined in good faith by the Committee or the Board: (i) commission of an act of fraud, embezzlement, misappropriation, or breach of fiduciary duty against the Company or a Parent or Subsidiary; (ii) commission of a felony involving the business, assets, customers or clients of the Company or a Parent or Subsidiary, or charge with, indictment for, conviction of, pleading guilty to, confession to, or entering of a plea of nolo contendere by Participant for any other felony or any crime involving fraud, dishonesty, moral turpitude, or a breach of trust; (iii) breach of any written confidentiality, non-compete, non-solicitation or business opportunity covenant contained in any agreement entered into by such Participant with the Company or a Parent or Subsidiary; (iv) substantial failure to perform duties to the Company or a Parent or Subsidiary (other than any such failure resulting from the Participant's Disability) after written notice and an opportunity to cure (not to exceed 30 days); (v) gross misconduct or gross negligence materially injurious to the Company or a Parent or Subsidiary; (vi) Participant's violation of the Company's or a Parent's or Subsidiary's policy against harassment, its equal employment opportunity policy, or the Company's or a Parent's or Subsidiary's code of business conduct; or (vii) a material violation of any other policy or procedure of the Company or a Parent or Subsidiary.

5. Method of Payment. Payment of the aggregate Exercise Price will be by any of the following, or a combination thereof, at the election of Participant:

(a) cash in U.S. dollars;

(b) check designated in U.S. dollars;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) if Participant is a U.S. employee, surrender of other Shares which have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares and that are owned free and clear of any liens, claims, encumbrances, or security interests, provided that accepting such Shares, in the sole discretion of the Administrator, will not result in any adverse accounting consequences to the Company.

6. Tax Obligations.

(a) Responsibility for Taxes. Participant acknowledges that, regardless of any action taken by the Company or, if different, Participant's employer (the "Employer") or any Parent or Subsidiary to which Participant is providing services (together, the "Service Recipients"), the ultimate liability for any tax and/or social insurance liability obligations and requirements in connection with the Option, including, without limitation, (i) all federal, state, and local taxes (including the Participant's Federal Insurance Contributions Act (FICA) obligations) that are required to be withheld by any Service Recipient or other payment of tax-related items related to Participant's participation in the Plan and legally applicable to Participant, (ii) the Participant's and, to the extent required by any Service Recipient, the Service Recipient's fringe benefit tax liability, if any, associated with the grant, vesting, or exercise of the Option or sale of Shares, and (iii) any other Service Recipient taxes the responsibility for which the Participant has, or has agreed to bear, with respect to the Option (or exercise thereof or issuance of Shares thereunder) (collectively, the "Tax Obligations"), is and remains Participant's sole responsibility and may exceed the amount actually withheld by the applicable Service Recipient(s). Participant further acknowledges that no Service Recipient (A) makes any representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Option, including, but not limited to, the grant, vesting or exercise of the Option, the subsequent sale of Shares acquired pursuant to such exercise and the receipt of any dividends or other distributions, and (B) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Option to reduce or eliminate Participant's liability for Tax Obligations or achieve any particular tax result. Further, if Participant is subject to Tax Obligations in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the applicable

Service Recipient(s) (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction. If Participant fails to make satisfactory arrangements for the payment of any required Tax Obligations hereunder at the time of the applicable taxable event, Participant acknowledges and agrees that the Company may refuse to issue or deliver the Shares.

(b) Tax Withholding. Pursuant to such procedures as the Administrator may specify from time to time, the applicable Service Recipient(s) shall withhold the amount required to be withheld for the payment of Tax Obligations. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit Participant to satisfy such Tax Obligations, in whole or in part (without limitation), if permissible by applicable local law, by (i) paying cash in U.S. dollars, (ii) electing to have the Company withhold otherwise deliverable Shares having a fair market value equal to the minimum amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences), (iii) having the amount of such Tax Obligations withheld from Participant's wages or other cash compensation paid to Participant by the applicable Service Recipient(s), (iv) delivering to the Company already vested and owned Shares having a fair market value equal to such Tax Obligations, or (v) selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion (whether through a broker or otherwise) equal to the minimum amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences). To the extent determined appropriate by the Administrator in its discretion, the Administrator will have the right (but not the obligation) to satisfy any Tax Obligations by reducing the number of Shares otherwise deliverable to Participant. Further, if Participant is subject to tax in more than one jurisdiction between the Date of Grant and a date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges and agrees that the applicable Service Recipient(s) (and/or former employer, as applicable) may be required to withhold or account for tax in more than one jurisdiction.

(c) Notice of Disqualifying Disposition of ISO Shares. If the Option is an ISO, and if Participant sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date 2 years after the Date of Grant, or (ii) the date 1 year after the date of exercise, Participant will immediately notify the Company in writing of such disposition. Participant agrees that Participant may be subject to income tax withholding by the Company on the compensation income recognized by Participant.

(d) Code Section 409A. Under Code Section 409A, a stock right (such as the Option) that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per share exercise price that is determined by the Internal Revenue Service (the "IRS") to be less than the fair market value of an underlying share on the date of grant (a "discount option") may be considered "deferred compensation." A stock right that is a "discount option" may result in (i) income recognition by the recipient of the stock right prior to the exercise of the stock right, (ii) an additional 20% federal income tax, and (iii) potential penalty and interest charges. The "discount option" may also result in additional state income, penalty and interest tax to the recipient of the stock right. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the fair market value of a Share on the date of grant in a later examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the fair market value of a Share on the date of grant, Participant shall be solely responsible for Participant's costs related to such a determination.

7. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares (which may be in book entry form) will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant (including through electronic delivery to a brokerage account). After such issuance, recordation, and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

8. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY

CONTINUING AS A SERVICE PROVIDER, WHICH UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW IS AT THE WILL OF THE APPLICABLE SERVICE RECIPIENT AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS OPTION AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF ANY SERVICE RECIPIENT TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER, SUBJECT TO APPLICABLE LAW, WHICH TERMINATION, UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW, MAY BE AT ANY TIME, WITH OR WITHOUT CAUSE.

9. Nature of Grant. In accepting the Option, Participant acknowledges, understands and agrees that:

(a) the grant of the Option is voluntary and occasional and does not create any contractual or other right to receive future grants of options, or benefits in lieu of options, even if options have been granted in the past;

(b) all decisions with respect to future option or other grants, if any, will be at the sole discretion of the Administrator;

(c) Participant is voluntarily participating in the Plan;

(d) the Option and any Shares acquired under the Plan are not intended to replace any pension rights or compensation;

(e) the Option and Shares acquired under the Plan and the income and value of same, are not part of normal or expected compensation for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments;

(f) the future value of the Shares underlying the Option is unknown, indeterminable, and cannot be predicted with certainty;

(g) if the underlying Shares do not increase in value, the Option will have no value;

(h) if Participant exercises the Option and acquires Shares, the value of such Shares may increase or decrease in value, even below the Exercise Price;

(i) for purposes of the Option, Participant's engagement as a Service Provider will be considered terminated as of the date Participant is no longer actively providing services to the Company or any Parent or Subsidiary (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and unless otherwise expressly provided in this Option Agreement (including by reference in the Notice of Grant to other arrangements or contracts) or determined by the Administrator, (i) Participant's right to vest in the Option under the Plan, if any, will terminate as of such date and will not be extended by any notice period (*e.g.*, Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where Participant is a Service Provider or Participant's employment or service agreement, if any, unless Participant is providing bona fide services during such time); and (ii) the period (if any) during which Participant may exercise the Option after such termination of Participant's engagement as a Service Provider will commence on the date Participant ceases to actively provide services and will not be extended by any notice period mandated under employment laws in the jurisdiction where Participant is employed or terms of Participant's engagement agreement, if any; the Administrator shall have the exclusive discretion to determine when Participant is no longer actively

providing services for purposes of his or her Option grant (including whether Participant may still be considered to be providing services while on a leave of absence and consistent with local law);

(j) unless otherwise provided in the Plan or by the Administrator in its discretion, the Option and the benefits evidenced by this Option Agreement do not create any entitlement to have the Option or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

(k) the following provisions apply only if Participant is providing services outside the United States:

(i) the Option and the Shares subject to the Option are not part of normal or expected compensation or salary for any purpose;

(ii) Participant acknowledges and agrees that no Service Recipient shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Option or of any amounts due to Participant pursuant to the exercise of the Option or the subsequent sale of any Shares acquired upon exercise; and

(iii) no claim or entitlement to compensation or damages shall arise from forfeiture of the Option resulting from the termination of Participant's engagement as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and in consideration of the grant of the Option to which Participant is otherwise not entitled, Participant irrevocably agrees never to institute any claim against any Service Recipient, waives his or her ability, if any, to bring any such claim, and releases each Service Recipient from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, Participant shall be deemed irrevocably to have agreed not to pursue such claim and agrees to execute any and all documents necessary to request dismissal or withdrawal of such claim.

10. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the Shares underlying the Option. Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding his or her participation in the Plan before taking any action related to the Plan.

11. Data Privacy. Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of Participant's personal data as described in this Option Agreement and any other Option grant materials by and among, as applicable, the Service Recipients for the exclusive purpose of implementing, administering and managing Participant's participation in the Plan.

Participant understands that the Company and the Service Recipient may hold certain personal information about Participant, including, but not limited to, Participant's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Options or any other entitlement to Shares awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

Participant understands that Data may be transferred to a stock plan service provider, as may be selected by the Company in the future, assisting the Company with the implementation, administration, and management of the Plan. Participant understands that the recipients of the Data may be located in the United States or elsewhere, and that the recipient's country of operation (e.g., the United States) may have different data privacy laws and protections than Participant's country. Participant understands that if he or she resides outside the United States, he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. Participant authorizes the Company and any other possible recipients which may assist the Company

(presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing Participant's participation in the Plan. Participant understands that Data will be held only as long as is necessary to implement, administer and manage Participant's participation in the Plan. Participant understands that if he or she resides outside the United States, he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, Participant understands that he or she is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, his or her engagement as a Service Provider and career with the Service Recipient will not be adversely affected. The only adverse consequence of refusing or withdrawing Participant's consent is that the Company would not be able to grant Participant Options or other equity awards or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that he or she may contact his or her local human resources representative.

12. Address for Notices. Any notice to be given to the Company under the terms of this Option Agreement will be addressed to the Company at IGM Biosciences, Inc., 325 E. Middlefield Road, Mountain View, California 94043, or at such other address as the Company may hereafter designate in writing.

13. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant.

14. Successors and Assigns. The Company may assign any of its rights under this Option Agreement to single or multiple assignees, and this Option Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Option Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns. The rights and obligations of Participant under this Option Agreement may only be assigned with the prior written consent of the Company.

15. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration, qualification or rule compliance of the Shares upon any securities exchange or under any state, federal or non-U.S. law, the tax code and related regulations or under the rulings or regulations of the United States Securities and Exchange Commission or any other governmental regulatory body or the clearance, consent or approval of the United States Securities and Exchange Commission or any other governmental regulatory authority is necessary or desirable as a condition to the purchase by, or issuance of Shares, to Participant (or his or her estate) hereunder, such purchase or issuance will not occur unless and until such listing, registration, qualification, rule compliance, clearance, consent or approval will have been completed, effected or obtained free of any conditions not acceptable to the Company. Subject to the terms of the Option Agreement and the Plan, the Company shall not be required to issue any certificate or certificates for Shares hereunder prior to the lapse of such reasonable period of time following the date of exercise of the Option as the Administrator may establish from time to time for reasons of administrative convenience.

16. Language. If Participant has received this Option Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

17. Interpretation. The Administrator will have the power to interpret the Plan and this Option Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Shares subject to the Option have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. Neither the Administrator nor any person acting on behalf of the Administrator will be personally liable for any action, determination, or interpretation made in good faith with respect to the Plan or this Option Agreement.

18. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to the Option awarded under the Plan or future options that may be awarded under the Plan by electronic means or require Participant to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any online or electronic system established and maintained by the Company or a third party designated by the Company.

19. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Option Agreement.

20. Option Agreement Severable. In the event that any provision in this Option Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Option Agreement.

21. Amendment, Suspension or Termination of the Plan. By accepting this Option, Participant expressly warrants that he or she has received an Option under the Plan, and has received, read, and understood a description of the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Administrator at any time.

22. Governing Law and Venue. This Option Agreement will be governed by the laws of California, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Option or this Option Agreement, the parties hereby submit to and consent to the jurisdiction of the State of California, and agree that such litigation will be conducted in the courts of Santa Clara County, California, or the United States federal courts for the Northern District of California, and no other courts, where this Option is made and/or to be performed.

23. Country Addendum. Notwithstanding any provisions in this Option Agreement, this Option shall be subject to any special terms and conditions set forth in an appendix (if any) to this Option Agreement for any country whose laws are applicable to Participant and this Option (as determined by the Administrator in its sole discretion) (the "Country Addendum"). Moreover, if Participant relocates to one of the countries included in the Country Addendum (if any), the special terms and conditions for such country will apply to Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Country Addendum (if any) constitutes a part of this Option Agreement.

24. Modifications to the Option Agreement. This Option Agreement constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Option Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Option Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Option Agreement, the Company reserves the right to revise this Option Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Code Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A of the Code in connection with the Option.

25. No Waiver. Either party's failure to enforce any provision or provisions of this Option Agreement shall not in any way be construed as a waiver of any such provision or provisions, nor prevent that party from thereafter enforcing each and every other provision of this Option Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party's right to assert all other legal remedies available to it under the circumstances.

26. Tax Consequences. Participant has reviewed with his or her own tax advisors the U.S. federal, state, local and non-U.S. tax consequences of this investment and the transactions contemplated by this Option Agreement. With respect to such matters, Participant relies solely on such advisors and not on any statements or representations of the Company or any of its agents, written or oral. Participant understands that Participant (and not the Company) shall be responsible for Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Option Agreement.

EXHIBIT B
IGM BIOSCIENCES, INC.
AMENDED AND RESTATED 2018 OMNIBUS INCENTIVE PLAN

EXERCISE NOTICE

IGM Biosciences, Inc.
325 E. Middlefield Road
Mountain View, CA 94043

Attention: Stock Administration

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Purchaser") hereby elects to purchase _____ shares (the "Shares") of the Common Stock of IGM Biosciences, Inc. (the "Company") under and pursuant to the Amended and Restated 2018 Omnibus Incentive Plan (the "Plan") and the Stock Option Agreement, dated _____ and including the Notice of Grant, the Terms and Conditions of Stock Option Grant, and exhibits attached thereto (the "Option Agreement"). The purchase price for the Shares will be $_____, as required by the Option Agreement.

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price of the Shares and any Tax Obligations (as defined in Section 6(a) of the Option Agreement) to be paid in connection with the exercise of the Option. The purchase price is being delivered by [check one]:

□ cash, check or electronic transfer in U.S. dollars; or
□ a net exercise.[1]

3. Representations of Purchaser. Purchaser acknowledges that Purchaser has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to the Option, notwithstanding the exercise of the Option. The Shares so acquired will be issued to Purchaser as soon as practicable after exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date of issuance, except as provided in Section 14 of the Plan.

5. Tax Consultation. Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted with any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

6. Entire Agreement; Governing Law. The Plan and Option Agreement are incorporated herein by this reference. This Exercise Notice, the Plan and the Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. This Option Agreement is governed by the internal substantive laws, but not the choice of law rules, of California.

[1] The Company reserves the right to impose additional restrictions and limitations on or discontinue the ability to net exercise at any time without prior notice.

Submitted by: Accepted by:

PURCHASER IGM BIOSCIENCES, INC.

_____ _____

Signature Signature

_____ _____

Print Name Print Name

Address: _____

Title

_____

_____

_____

Date Received

IGM BIOSCIENCES, INC.
AMENDED AND RESTATED 2018 OMNIBUS INCENTIVE PLAN
FORM OF RESTRICTED STOCK UNIT AGREEMENT

NOTICE OF RESTRICTED STOCK UNIT GRANT

Unless otherwise defined herein, the terms defined in the IGM Biosciences, Inc. Amended and Restated 2018 Omnibus Incentive Plan (the "Plan") will have the same defined meanings in this Restricted Stock Unit Agreement, which includes the Notice of Restricted Stock Unit Grant (the "Notice of Grant"), the Terms and Conditions of Restricted Stock Unit Grant attached hereto as Exhibit A, and all other exhibits and appendices attached hereto (the "Award Agreement").

Participant: _____

The undersigned Participant has been granted the right to receive an Award of Restricted Stock Units, subject to the terms and conditions of the Plan and this Award Agreement, as follows:

Grant Number: _____

Date of Grant: _____

Vesting Commencement Date: _____

Number of Restricted Stock Units: _____

Vesting Schedule:

[_____]

By Participant's online acceptance and the signature of the representative of IGM Biosciences, Inc. (the "Company") below, Participant and the Company agree that this Award of Restricted Stock Units is granted under and governed by the terms and conditions of the Plan and this Award Agreement, including the Terms and Conditions of Restricted Stock Unit Grant, attached hereto as Exhibit A, all of which are made a part of this document. Participant acknowledges receipt of a copy of the Plan. Participant has reviewed the Plan and this Award Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Award Agreement, and fully understands all provisions of the Plan and this Award Agreement. Participant hereby agrees to accept as binding, conclusive, and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and the Award Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT: IGM BIOSCIENCES, INC.

_____ _____
Signature Signature

_____ _____
Print Name Print Name

_____
Title

Address:
_____
_____
_____

EXHIBIT A

TERMS AND CONDITIONS OF RESTRICTED STOCK UNIT GRANT

1. Grant of Restricted Stock Units. The Company hereby grants to the individual ("Participant") named in the Notice of Grant of Restricted Stock Units of this Award Agreement (the "Notice of Grant") under the Plan an Award of Restricted Stock Units, subject to all of the terms and conditions in this Award Agreement and the Plan, which is incorporated herein by this reference. Subject to Section 18(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Award Agreement, the terms and conditions of the Plan shall prevail.

2. Company's Obligation to Pay. Each Restricted Stock Unit represents the right to receive a Share on the date it vests. Unless and until the Restricted Stock Units will have vested in the manner set forth in Section 3 or 4, Participant will have no right to payment of any such Restricted Stock Units. Prior to actual payment of any vested Restricted Stock Units, such Restricted Stock Unit will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

3. Vesting Schedule. Except as provided in Section 4, and subject to Section 5, the Restricted Stock Units awarded by this Award Agreement will vest in accordance with the vesting schedule set forth in the Notice of Grant, subject to Participant continuing to be a Service Provider through each applicable vesting date.

4. Payment after Vesting.

a. General Rule. Subject to Section 8, any Restricted Stock Units that vest will be paid to Participant (or in the event of Participant's death, to his or her properly designated beneficiary or estate) in whole Shares. Subject to the provisions of Section 4(b), such vested Restricted Stock Units shall be paid in whole Shares as soon as practicable after vesting, but in each such case within 60 days following the vesting date. In no event will Participant be permitted, directly or indirectly, to specify the taxable year of payment of any Restricted Stock Units payable under this Award Agreement.

b. Acceleration.

i. Discretionary Acceleration. The Administrator, in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the unvested Restricted Stock Units at any time, subject to the terms of the Plan. If so accelerated, such Restricted Stock Units will be considered as having vested as of the date specified by the Administrator. If Participant is a U.S. taxpayer, the payment of Shares vesting pursuant to this Section 4(b) shall in all cases be paid at a time or in a manner that is exempt from, or complies with, Section 409A. The prior sentence may be superseded in a future agreement or amendment to this Award Agreement only by direct and specific reference to such sentence.

ii. Notwithstanding anything in the Plan or this Award Agreement or any other agreement (whether entered into before, on or after the Date of Grant), if the vesting of the balance, or some lesser portion of the balance, of the Restricted Stock Units is accelerated in connection with Participant's termination as a Service Provider (provided that such termination is a "separation from service" within the meaning of Section 409A, as determined by the Company), other than due to Participant's death, and if (x) Participant is a U.S. taxpayer and a "specified employee" within the meaning of Section 409A at the time of such termination as a Service Provider and (y) the payment of such accelerated Restricted Stock Units will result in the imposition of additional tax under Section 409A if paid to Participant on or within the 6 month period following Participant's termination as a Service Provider, then the payment of such accelerated Restricted Stock Units will not be made until the date 6 months and 1 day following the date of Participant's termination as a Service Provider, unless Participant dies following his or her termination as a Service Provider, in which case, the Restricted Stock Units will be paid in Shares to Participant's estate as soon as practicable following his or her death.

c. Section 409A. It is the intent of this Award Agreement that it and all payments and benefits to U.S. taxpayers hereunder be exempt from, or comply with, the requirements of Section 409A so that none of the Restricted Stock Units provided under this Award Agreement or Shares issuable thereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to be so exempt or so comply. Each payment

payable under this Award Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). However, in no event will the Company reimburse Participant, or be otherwise responsible for, any taxes or costs that may be imposed on Participant as a result of Section 409A. For purposes of this Award Agreement, "Section 409A" means Section 409A of the Code, and any final Treasury Regulations and Internal Revenue Service guidance thereunder, as each may be amended from time to time.

5. Forfeiture Upon Termination as a Service Provider. Notwithstanding any contrary provision of this Award Agreement, if Participant ceases to be a Service Provider for any or no reason, the then-unvested Restricted Stock Units awarded by this Award Agreement will thereupon be forfeited at no cost to the Company and Participant will have no further rights thereunder.

6. Tax Consequences. Participant has reviewed with his or her own tax advisors the U.S. federal, state, local and non-U.S. tax consequences of this investment and the transactions contemplated by this Award Agreement. With respect to such matters, Participant relies solely on such advisors and not on any statements or representations of the Company or any of its agents, written or oral. Participant understands that Participant (and not the Company) shall be solely responsible for Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Award Agreement.

7. Death of Participant. Any distribution or delivery to be made to Participant under this Award Agreement will, if Participant is then deceased, be made to Participant's designated beneficiary, or if no beneficiary survives Participant, the administrator or executor of Participant's estate. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

8. Tax Obligations

a. Responsibility for Taxes. Participant acknowledges that, regardless of any action taken by the Company or, if different, Participant's employer (the "Employer") or any Parent or Subsidiary to which Participant is providing services (together, the "Service Recipients"), the ultimate liability for any tax and/or social insurance liability obligations and requirements in connection with the Restricted Stock Units, including, without limitation, (i) all federal, state, and local taxes (including the Participant's Federal Insurance Contributions Act (FICA) obligations) that are required to be withheld by any Service Recipient or other payment of tax-related items related to Participant's participation in the Plan and legally applicable to Participant, (ii) the Participant's and, to the extent required by any Service Recipient, the Service Recipient's fringe benefit tax liability, if any, associated with the grant, vesting, or settlement of the Restricted Stock Units or sale of Shares, and (iii) any other Service Recipient taxes the responsibility for which the Participant has, or has agreed to bear, with respect to the Restricted Stock Units (or settlement thereof or issuance of Shares thereunder) (collectively, the "Tax Obligations"), is and remains Participant's sole responsibility and may exceed the amount actually withheld by the applicable Service Recipient(s). Participant further acknowledges that no Service Recipient (A) makes any representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of Shares acquired pursuant to such settlement and the receipt of any dividends or other distributions, and (B) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax Obligations or achieve any particular tax result. Further, if Participant is subject to Tax Obligations in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the applicable Service Recipient(s) (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction. If Participant fails to make satisfactory arrangements for the payment of any required Tax Obligations hereunder at the time of the applicable taxable event, Participant acknowledges and agrees that the Company may refuse to issue or deliver the Shares.

b. Tax Withholding. When Shares are issued as payment for vested Restricted Stock Units, Participant generally will recognize immediate U.S. taxable income if Participant is a U.S. taxpayer. If Participant is a non-U.S. taxpayer, Participant will be subject to applicable taxes in his or her jurisdiction. Pursuant to such procedures as the Administrator may specify from time to time, the applicable Service Recipient(s) shall withhold the amount required to be withheld for the payment of Tax Obligations. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit Participant to satisfy such Tax Obligations, in whole or in part (without

limitation), if permissible by applicable local law, by (i) paying cash in U.S. dollars, (ii) electing to have the Company withhold otherwise deliverable Shares having a fair market value equal to the amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences), (iii) having the amount of such Tax Obligations withheld from Participant's wages or other cash compensation paid to Participant by the applicable Service Recipient(s), (iv) delivering to the Company already vested and owned Shares having a fair market value equal to such Tax Obligations, or (v) selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion (whether through a broker or otherwise) equal to the amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences). Until such time as the Administrator chooses otherwise, in its complete discretion, the Company will satisfy any Tax Obligations by selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion. Further, if Participant is subject to tax in more than one jurisdiction between the Date of Grant and a date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges and agrees that the applicable Service Recipient (and/or former employer, as applicable) may be required to withhold or account for tax in more than one jurisdiction. If Participant fails to make satisfactory arrangements for the payment of such Tax Obligations hereunder at the time any applicable Restricted Stock Units otherwise are scheduled to vest pursuant to Sections 3 or 4, Participant will permanently forfeit such Restricted Stock Units and any right to receive Shares thereunder and such Restricted Stock Units will be returned to the Company at no cost to the Company. Participant acknowledges and agrees that the Company may refuse to deliver the Shares if such Tax Obligations are not delivered at the time they are due.

9. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares (which may be in book entry form) will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant (including through electronic delivery to a brokerage account). After such issuance, recordation, and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER, WHICH UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW IS AT THE WILL OF THE APPLICABLE SERVICE RECIPIENT AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS RESTRICTED STOCK UNIT AWARD OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF ANY SERVICE RECIPIENT TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER, SUBJECT TO APPLICABLE LAW, WHICH TERMINATION, UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW, MAY BE AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Grant is Not Transferable. Except to the limited extent provided in Section 7, this grant and the rights and privileges conferred hereby will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

12. Nature of Grant. In accepting the grant, Participant acknowledges, understands, and agrees that:

a. the grant of the Restricted Stock Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

b. all decisions with respect to future Restricted Stock Units or other grants, if any, will be at the sole discretion of the Administrator;

c. Participant is voluntarily participating in the Plan;

d. the Restricted Stock Units and the Shares subject to the Restricted Stock Units are not intended to replace any pension rights or compensation;

e. the Restricted Stock Units and the Shares subject to the Restricted Stock Units, and the income and value of same, are not part of normal or expected compensation for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments;

f. the future value of the Shares underlying the Restricted Stock Units is unknown, indeterminable and cannot be predicted;

g. for purposes of the Restricted Stock Units, Participant's status as a Service Provider will be considered terminated as of the date Participant is no longer actively providing services to the Company or any Parent or Subsidiary (regardless of the reason for such termination and whether or not later to be found invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and unless otherwise expressly provided in this Award Agreement (including by reference in the Notice of Grant to other arrangements or contracts) or determined by the Administrator, Participant's right to vest in the Restricted Stock Units under the Plan, if any, will terminate as of such date and will not be extended by any notice period (e.g., Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any, unless Participant is providing bona fide services during such time); the Administrator shall have the exclusive discretion to determine when Participant is no longer actively providing services for purposes of the Restricted Stock Units grant (including whether Participant may still be considered to be providing services while on a leave of absence and consistent with local law);

h. unless otherwise provided in the Plan or by the Administrator in its discretion, the Restricted Stock Units and the benefits evidenced by this Award Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

i. the following provisions apply only if Participant is providing services outside the United States:

i. the Restricted Stock Units and the Shares subject to the Restricted Stock Units are not part of normal or expected compensation or salary for any purpose;

ii. Participant acknowledges and agrees that no Service Recipient shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the subsequent sale of any Shares acquired upon settlement; and

iii. no claim or entitlement to compensation or damages shall arise from forfeiture of the Restricted Stock Units resulting from the termination of Participant's status as a Service Provider (for any reason whatsoever whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and in consideration of the grant of the Restricted Stock Units to which Participant is otherwise not entitled, Participant irrevocably agrees never to institute any claim against any Service Recipient, waives his or her ability, if any, to bring any such claim, and releases each Service Recipient from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, Participant shall be deemed irrevocably to have agreed not to pursue such claim and agrees to execute any and all documents necessary to request dismissal or withdrawal of such claim.

13. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the Shares underlying the Restricted Stock Units. Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding his or her participation in the Plan before taking any action related to the Plan.

14. Data Privacy. Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of Participant's personal data as described in this Award Agreement and any other Restricted Stock Unit grant materials by and among, as applicable, the Service Recipients for the exclusive purpose of implementing, administering and managing Participant's participation in the Plan.

Participant understands that the Company and the Service Recipient may hold certain personal information about Participant, including, but not limited to, Participant's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Restricted Stock Units or any other entitlement to Shares awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

Participant understands that Data may be transferred to a stock plan service provider, as may be selected by the Company in the future, assisting the Company with the implementation, administration, and management of the Plan. Participant understands that the recipients of the Data may be located in the United States or elsewhere, and that the recipient's country of operation (e.g., the United States) may have different data privacy laws and protections than Participant's country. Participant understands that if he or she resides outside the United States, he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. Participant authorizes the Company and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing Participant's participation in the Plan. Participant understands that Data will be held only as long as is necessary to implement, administer and manage Participant's participation in the Plan. Participant understands that if he or she resides outside the United States, he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, Participant understands that he or she is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, his or her engagement as a Service Provider and career with the Service Recipient will not be adversely affected. The only adverse consequence of refusing or withdrawing Participant's consent is that the Company would not be able to grant Participant Restricted Stock Units or other equity awards or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that he or she may contact his or her local human resources representative.

15. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company at IGM Biosciences, Inc., 325 E. Middlefield Road, Mountain View, California 94043, or at such other address as the Company may hereafter designate in writing.

16. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to the Restricted Stock Units awarded under the Plan or future Restricted Stock Units that may be awarded under the Plan by electronic means or require Participant to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or a third party designated by the Company.

17. No Waiver. Either party's failure to enforce any provision or provisions of this Award Agreement shall not in any way be construed as a waiver of any such provision or provisions, nor prevent that party from thereafter enforcing each and every other provision of this Award Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party's right to assert all other legal remedies available to it under the circumstances.

18. Successors and Assigns. The Company may assign any of its rights under this Award Agreement to single or multiple assignees, and this Award Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Award Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns. The rights and obligations of Participant under this Award Agreement may only be assigned with the prior written consent of the Company.

19. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration, qualification or rule compliance of the Shares upon any securities exchange or under any state, federal or non-U.S. law, the tax code and related regulations or under the rulings or regulations of the United States Securities and Exchange Commission or any other governmental regulatory body or the clearance, consent or approval of the United States Securities and Exchange Commission or any other governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to Participant (or his or her estate) hereunder, such issuance will not occur unless and until such listing, registration, qualification, rule compliance, clearance, consent or approval will have been completed, effected or obtained free of any conditions not acceptable to the Company. Subject to the terms of the Award Agreement and the Plan, the Company shall not be required to issue any certificate or certificates for Shares hereunder prior to the lapse of such reasonable period of time following the date of vesting of the Restricted Stock Units as the Administrator may establish from time to time for reasons of administrative convenience.

20. Language. If Participant has received this Award Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

21. Interpretation. The Administrator will have the power to interpret the Plan and this Award Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. Neither the Administrator nor any person acting on behalf of the Administrator will be personally liable for any action, determination, or interpretation made in good faith with respect to the Plan or this Award Agreement.

22. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

23. Amendment, Suspension or Termination of the Plan. By accepting this Award, Participant expressly warrants that he or she has received an Award of Restricted Stock Units under the Plan, and has received, read, and understood a description of the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Administrator at any time.

24. Modifications to the Award Agreement. This Award Agreement constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Award Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A in connection with this Award of Restricted Stock Units.

25. Governing Law; Venue; Severability. This Award Agreement and the Restricted Stock Units are governed by the internal substantive laws, but not the choice of law rules, of California. For purposes of litigating any dispute that arises under these Restricted Stock Units or this Award Agreement, the parties hereby submit to and consent to the jurisdiction of the State of California, and agree that such litigation will be conducted in the courts of Santa Clara County, California, or the United States federal courts for the Northern District of California, and no other courts, where this Award Agreement is made and/or to be performed. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Award Agreement shall continue in full force and effect.

26. Entire Agreement. The Plan is incorporated herein by this reference. The Plan and this Award Agreement (including the appendices and exhibits referenced herein) constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

27. Country Addendum. Notwithstanding any provisions in this Award Agreement, the Restricted Stock Unit grant shall be subject to any special terms and conditions set forth in an appendix (if any) to this Award Agreement for any country whose laws are applicable to Participant and this Award of Restricted Stock Units (as determined by the Administrator in its sole discretion) (the "Country Addendum"). Moreover, if Participant relocates to one of the countries included in the Country Addendum (if any), the special terms and conditions for such country will apply to Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Country Addendum constitutes part of this Award Agreement.

IGM BIOSCIENCES, INC.
AMENDED AND RESTATED 2018 OMNIBUS INCENTIVE PLAN
FORM OF DIRECTOR RESTRICTED STOCK UNIT AGREEMENT
NOTICE OF RESTRICTED STOCK UNIT GRANT

Unless otherwise defined herein, the terms defined in the IGM Biosciences, Inc. Amended and Restated 2018 Omnibus Incentive Plan (the "Plan") will have the same defined meanings in this Restricted Stock Unit Agreement, which includes the Notice of Restricted Stock Unit Grant (the "Notice of Grant"), the Terms and Conditions of Restricted Stock Unit Grant attached hereto as Exhibit A, and all other exhibits and appendices attached hereto (the "Award Agreement").

Participant: _____

The Participant has been granted the right to receive an Award of Restricted Stock Units, subject to the terms and conditions of the Plan and this Award Agreement, as follows:

Grant Number: _____

Date of Grant: _____

Number of Restricted Stock Units: _____

Vesting Schedule:

[_____]

In receiving this Award of Restricted Stock Units from IGM Biosciences, Inc. (the "Company"), Participant is hereby notified that the following constitute certain of the terms, conditions, and obligations of receiving, holding, and potentially vesting in and settlement of the Restricted Stock Units referenced in this Award Agreement:

1. This Award of Restricted Stock Units is granted under and governed by the terms and conditions of the Plan and this Award Agreement, including the Terms and Conditions of Restricted Stock Unit Grant, attached hereto as Exhibit A, all of which are made a part of this document.
2. Prior to settlement under this Award of Restricted Stock Units, the Company may require Participant to sign a written confirmation and acceptance that he or she has complied with all terms of this Award Agreement.
3. Participant accepts as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and this Award Agreement.
4. Participant has read and agrees to each provision of the Plan and this Award Agreement, including (but not limited to) Section 12 of this Award Agreement.
5. Participant will notify the Company upon any change in his or her residence address.

IGM BIOSCIENCES, INC.

_____

Signature

_____

Print Name

_____

Title

EXHIBIT A

TERMS AND CONDITIONS OF RESTRICTED STOCK UNIT GRANT

1. Grant of Restricted Stock Units. The Company hereby grants to the individual ("Participant") named in the Notice of Grant of Restricted Stock Units of this Award Agreement (the "Notice of Grant") under the Plan an Award of Restricted Stock Units, subject to all of the terms and conditions in this Award Agreement and the Plan, which is incorporated herein by this reference. Subject to Section 18(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Award Agreement, the terms and conditions of the Plan shall prevail.

2. Company's Obligation to Pay. Each Restricted Stock Unit represents the right to receive a Share on the date it vests. Unless and until the Restricted Stock Units will have vested in the manner set forth in Section 3 or 4, Participant will have no right to payment of any such Restricted Stock Units. Prior to actual payment of any vested Restricted Stock Units, such Restricted Stock Unit will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

3. Vesting Schedule. Except as provided in Section 4, and subject to Section 5, the Restricted Stock Units awarded by this Award Agreement will vest in accordance with the vesting schedule set forth in the Notice of Grant, subject to Participant continuing to be a Service Provider through each applicable vesting date.

4. Payment after Vesting.

a. General Rule. Subject to Section 8, any Restricted Stock Units that vest will be paid to Participant (or in the event of Participant's death, to his or her properly designated beneficiary or estate) in whole Shares. Subject to the provisions of Section 4(b) and any deferral program established under the Company's Outside Director Compensation Policy (a "Director Deferral Program"), such vested Restricted Stock Units shall be paid in whole Shares as soon as practicable after vesting, but in each such case within 60 days following the vesting date. Other than pursuant to a Director Deferral Program, in no event will Participant be permitted, directly or indirectly, to specify the taxable year of payment of any Restricted Stock Units payable under this Award Agreement.

b. Acceleration.

i. Discretionary Acceleration. The Administrator, in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the unvested Restricted Stock Units at any time, subject to the terms of the Plan. If so accelerated, such Restricted Stock Units will be considered as having vested as of the date specified by the Administrator. If Participant is a U.S. taxpayer, the payment of Shares vesting pursuant to this Section 4(b) shall in all cases be paid at a time or in a manner that is exempt from, or complies with, Section 409A. The prior sentence may be superseded in a future agreement or amendment to this Award Agreement only by direct and specific reference to such sentence.

ii. Notwithstanding anything in the Plan or this Award Agreement or any other agreement (whether entered into before, on or after the Date of Grant), if the vesting of the balance, or some lesser portion of the balance, of the Restricted Stock Units is accelerated in connection with Participant's termination as a Service Provider (provided that such termination is a "separation from service" within the meaning of Section 409A, as determined by the Company), other than due to Participant's death, and if (x) Participant is a U.S. taxpayer and a "specified employee" within the meaning of Section 409A at the time of such termination as a Service Provider and (y) the payment of such accelerated Restricted Stock Units will result in the imposition of additional tax under Section 409A if paid to Participant on or within the 6 month period following Participant's termination as a Service Provider, then the payment of such accelerated Restricted Stock Units will not be made until the date 6 months and 1 day following the date of Participant's termination as a Service Provider, unless Participant dies following his or her termination as a Service Provider, in which case, the Restricted Stock Units will be paid in Shares to Participant's estate as soon as practicable following his or her death.

c. Section 409A. It is the intent of this Award Agreement that it and all payments and benefits to U.S. taxpayers hereunder be exempt from, or comply with, the requirements of Section 409A so that none of the Restricted Stock Units provided under this Award Agreement or Shares issuable thereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to be so exempt or so comply. Each payment payable under this Award Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). However, in no event will the Company reimburse Participant, or be otherwise responsible for, any taxes or costs that may be imposed on Participant as a result of Section 409A. For purposes of this Award Agreement, "Section 409A" means Section 409A of the Code, and any final Treasury Regulations and Internal Revenue Service guidance thereunder, as each may be amended from time to time.

5. Forfeiture Upon Termination as a Service Provider. Notwithstanding any contrary provision of this Award Agreement, if Participant ceases to be a Service Provider for any or no reason, the then-unvested Restricted Stock Units awarded by this Award Agreement will thereupon be forfeited at no cost to the Company and Participant will have no further rights thereunder.

6. Tax Consequences. Participant has reviewed with his or her own tax advisors the U.S. federal, state, local and non-U.S. tax consequences of this investment and the transactions contemplated by this Award Agreement. With respect to such matters, Participant relies solely on such advisors and not on any statements or representations of the Company or any of its agents, written or oral. Participant understands that Participant (and not the Company) shall be solely responsible for Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Award Agreement.

7. Death of Participant. Any distribution or delivery to be made to Participant under this Award Agreement will, if Participant is then deceased, be made to Participant's designated beneficiary, or if no beneficiary survives Participant, the administrator or executor of Participant's estate. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

8. Tax Obligations

a. Responsibility for Taxes. Participant acknowledges that, regardless of any action taken by the Company or, if different, Participant's employer (the "Employer") or any Parent or Subsidiary to which Participant is providing services (together, the "Service Recipients"), the ultimate liability for any tax and/or social insurance liability obligations and requirements in connection with the Restricted Stock Units, including, without limitation, (i) all federal, state, and local taxes (including the Participant's Federal Insurance Contributions Act (FICA) obligations) that are required to be withheld by any Service Recipient or other payment of tax-related items related to Participant's participation in the Plan and legally applicable to Participant, (ii) the Participant's and, to the extent required by any Service Recipient, the Service Recipient's fringe benefit tax liability, if any, associated with the grant, vesting, or settlement of the Restricted Stock Units or sale of Shares, and (iii) any other Service Recipient taxes the responsibility for which the Participant has, or has agreed to bear, with respect to the Restricted Stock Units (or settlement thereof or issuance of Shares thereunder) (collectively, the "Tax Obligations"), is and remains Participant's sole responsibility and may exceed the amount actually withheld by the applicable Service Recipient(s). Participant further acknowledges that no Service Recipient (A) makes any representations or undertakings regarding the treatment of any Tax Obligations in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of Shares acquired pursuant to such settlement and the receipt of any dividends or other distributions, and (B) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax Obligations or achieve any particular tax result. Further, if Participant is subject to Tax Obligations in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the applicable Service Recipient(s) (or former employer, as applicable) may be required to withhold or account for Tax Obligations in more than one jurisdiction. If Participant fails to make satisfactory arrangements for the payment of any required Tax Obligations hereunder at the time of the applicable taxable event, Participant acknowledges and agrees that the Company may refuse to issue or deliver the Shares.

b. Tax Withholding. When Shares are issued as payment for vested Restricted Stock Units, Participant generally will recognize immediate U.S. taxable income if Participant is a U.S. taxpayer. If Participant is a

non-U.S. taxpayer, Participant will be subject to applicable taxes in his or her jurisdiction. Pursuant to such procedures as the Administrator may specify from time to time, the applicable Service Recipient(s) shall withhold the amount required to be withheld for the payment of Tax Obligations. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit Participant to satisfy such Tax Obligations, in whole or in part (without limitation), if permissible by applicable local law, by (i) paying cash in U.S. dollars, (ii) electing to have the Company withhold otherwise deliverable Shares having a fair market value equal to the amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences), (iii) having the amount of such Tax Obligations withheld from Participant's wages or other cash compensation paid to Participant by the applicable Service Recipient(s), (iv) delivering to the Company already vested and owned Shares having a fair market value equal to such Tax Obligations, or (v) selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion (whether through a broker or otherwise) equal to the amount that is necessary to meet the withholding requirement for such Tax Obligations (or such greater amount as Participant may elect if permitted by the Administrator, if such greater amount would not result in adverse financial accounting consequences). Until such time as the Administrator chooses otherwise, in its complete discretion, the Company will satisfy any Tax Obligations by selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion. Further, if Participant is subject to tax in more than one jurisdiction between the Date of Grant and a date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges and agrees that the applicable Service Recipient (and/or former employer, as applicable) may be required to withhold or account for tax in more than one jurisdiction. If Participant fails to make satisfactory arrangements for the payment of such Tax Obligations hereunder at the time any applicable Restricted Stock Units otherwise are scheduled to vest pursuant to Sections 3 or 4, Participant will permanently forfeit such Restricted Stock Units and any right to receive Shares thereunder and such Restricted Stock Units will be returned to the Company at no cost to the Company. Participant acknowledges and agrees that the Company may refuse to deliver the Shares if such Tax Obligations are not delivered at the time they are due.

9. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares (which may be in book entry form) will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant (including through electronic delivery to a brokerage account). After such issuance, recordation, and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

10. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER, WHICH UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW IS AT THE WILL OF THE APPLICABLE SERVICE RECIPIENT AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS RESTRICTED STOCK UNIT AWARD OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF ANY SERVICE RECIPIENT TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER, SUBJECT TO APPLICABLE LAW, WHICH TERMINATION, UNLESS PROVIDED OTHERWISE UNDER APPLICABLE LAW, MAY BE AT ANY TIME, WITH OR WITHOUT CAUSE.

11. Grant is Not Transferable. Except to the limited extent provided in Section 7, this grant and the rights and privileges conferred hereby will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

12. Nature of Grant. Participant acknowledges, understands, and agrees with the following, which are conditions of this Award of Restricted Stock Units:

a. the grant of the Restricted Stock Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

b. all decisions with respect to future Restricted Stock Units or other grants, if any, will be at the sole discretion of the Administrator;

c. Participant is voluntarily participating in the Plan;

d. the Restricted Stock Units and the Shares subject to the Restricted Stock Units are not intended to replace any pension rights or compensation;

e. the Restricted Stock Units and the Shares subject to the Restricted Stock Units, and the income and value of same, are not part of normal or expected compensation for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments;

f. the future value of the Shares underlying the Restricted Stock Units is unknown, indeterminable and cannot be predicted;

g. for purposes of the Restricted Stock Units, Participant's status as a Service Provider will be considered terminated as of the date Participant is no longer actively providing services to the Company or any Parent or Subsidiary (regardless of the reason for such termination and whether or not later to be found invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and unless otherwise expressly provided in this Award Agreement (including by reference in the Notice of Grant to other arrangements or contracts) or determined by the Administrator, Participant's right to vest in the Restricted Stock Units under the Plan, if any, will terminate as of such date and will not be extended by any notice period (e.g., Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any, unless Participant is providing bona fide services during such time); the Administrator shall have the exclusive discretion to determine when Participant is no longer actively providing services for purposes of the Restricted Stock Units grant (including whether Participant may still be considered to be providing services while on a leave of absence and consistent with local law);

h. unless otherwise provided in the Plan or by the Administrator in its discretion, the Restricted Stock Units and the benefits evidenced by this Award Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

i. the following provisions apply only if Participant is providing services outside the United States:

i. the Restricted Stock Units and the Shares subject to the Restricted Stock Units are not part of normal or expected compensation or salary for any purpose;

ii. Participant acknowledges and agrees that no Service Recipient shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the subsequent sale of any Shares acquired upon settlement; and

iii. no claim or entitlement to compensation or damages shall arise from forfeiture of the Restricted Stock Units resulting from the termination of Participant's status as a Service Provider (for any reason

whatsoever whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is a Service Provider or the terms of Participant's employment or service agreement, if any), and in consideration of the grant of the Restricted Stock Units to which Participant is otherwise not entitled, Participant irrevocably agrees never to institute any claim against any Service Recipient, waives his or her ability, if any, to bring any such claim, and releases each Service Recipient from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, Participant shall be deemed irrevocably to have agreed not to pursue such claim and agrees to execute any and all documents necessary to request dismissal or withdrawal of such claim.

13. No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the Shares underlying the Restricted Stock Units. Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding his or her participation in the Plan before taking any action related to the Plan.

14. Data Privacy. Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of Participant's personal data as described in this Award Agreement and any other Restricted Stock Unit grant materials by and among, as applicable, the Service Recipients for the exclusive purpose of implementing, administering and managing Participant's participation in the Plan.

Participant understands that the Company and the Service Recipient may hold certain personal information about Participant, including, but not limited to, Participant's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Restricted Stock Units or any other entitlement to Shares awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

Participant understands that Data may be transferred to a stock plan service provider, as may be selected by the Company in the future, assisting the Company with the implementation, administration, and management of the Plan. Participant understands that the recipients of the Data may be located in the United States or elsewhere, and that the recipient's country of operation (e.g., the United States) may have different data privacy laws and protections than Participant's country. Participant understands that if he or she resides outside the United States, he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. Participant authorizes the Company and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing Participant's participation in the Plan. Participant understands that Data will be held only as long as is necessary to implement, administer and manage Participant's participation in the Plan. Participant understands that if he or she resides outside the United States, he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, Participant understands that he or she is providing the consents herein on a purely voluntary basis. If Participant does not consent, or if Participant later seeks to revoke his or her consent, his or her engagement as a Service Provider and career with the Service Recipient will not be adversely affected. The only adverse consequence of refusing or withdrawing Participant's consent is that the Company would not be able to grant Participant Restricted Stock Units or other equity awards or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that he or she may contact his or her local human resources representative.

15. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company at IGM Biosciences, Inc., 325 E. Middlefield Road, Mountain View, California 94043, or at such other address as the Company may hereafter designate in writing.

16. Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to the Restricted Stock Units awarded under the Plan or future Restricted Stock Units that

may be awarded under the Plan by electronic means or require Participant to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or a third party designated by the Company.

17. No Waiver. Either party's failure to enforce any provision or provisions of this Award Agreement shall not in any way be construed as a waiver of any such provision or provisions, nor prevent that party from thereafter enforcing each and every other provision of this Award Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party's right to assert all other legal remedies available to it under the circumstances.

18. Successors and Assigns. The Company may assign any of its rights under this Award Agreement to single or multiple assignees, and this Award Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Award Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns. The rights and obligations of Participant under this Award Agreement may only be assigned with the prior written consent of the Company.

19. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration, qualification or rule compliance of the Shares upon any securities exchange or under any state, federal or non-U.S. law, the tax code and related regulations or under the rulings or regulations of the United States Securities and Exchange Commission or any other governmental regulatory body or the clearance, consent or approval of the United States Securities and Exchange Commission or any other governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to Participant (or his or her estate) hereunder, such issuance will not occur unless and until such listing, registration, qualification, rule compliance, clearance, consent or approval will have been completed, effected or obtained free of any conditions not acceptable to the Company. Subject to the terms of the Award Agreement and the Plan, the Company shall not be required to issue any certificate or certificates for Shares hereunder prior to the lapse of such reasonable period of time following the date of vesting of the Restricted Stock Units as the Administrator may establish from time to time for reasons of administrative convenience.

20. Language. If Participant has received this Award Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

21. Interpretation. The Administrator will have the power to interpret the Plan and this Award Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. Neither the Administrator nor any person acting on behalf of the Administrator will be personally liable for any action, determination, or interpretation made in good faith with respect to the Plan or this Award Agreement.

22. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

23. Amendment, Suspension or Termination of the Plan. Participant expressly warrants that he or she has received an Award of Restricted Stock Units under the Plan, and has received, read, and understood a description of the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Administrator at any time.

24. Modifications to the Award Agreement. This Award Agreement constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Award Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and

without the consent of Participant, to comply with Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A in connection with this Award of Restricted Stock Units.

25. Governing Law; Venue; Severability. This Award Agreement and the Restricted Stock Units are governed by the internal substantive laws, but not the choice of law rules, of California. For purposes of litigating any dispute that arises under these Restricted Stock Units or this Award Agreement, the parties hereby submit to and consent to the jurisdiction of the State of California, and agree that such litigation will be conducted in the courts of Santa Clara County, California, or the United States federal courts for the Northern District of California, and no other courts, where this Award Agreement is made and/or to be performed. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Award Agreement shall continue in full force and effect.

26. Entire Agreement. The Plan is incorporated herein by this reference. The Plan, any election timely made by the Participant under a Director Deferral Program, and this Award Agreement (including the appendices and exhibits referenced herein) constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

27. Country Addendum. Notwithstanding any provisions in this Award Agreement, the Restricted Stock Unit grant shall be subject to any special terms and conditions set forth in an appendix (if any) to this Award Agreement for any country whose laws are applicable to Participant and this Award of Restricted Stock Units (as determined by the Administrator in its sole discretion) (the "Country Addendum"). Moreover, if Participant relocates to one of the countries included in the Country Addendum (if any), the special terms and conditions for such country will apply to Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Country Addendum constitutes part of this Award Agreement.

Exhibit 19.1

IGM BIOSCIENCES, INC.

INSIDER TRADING POLICY
AND
GUIDELINES WITH RESPECT TO
CERTAIN TRANSACTIONS IN SECURITIES

(Updated as of September 12, 2023)

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INTRODUCTION

IGM Biosciences, Inc. (together with any and all subsidiaries, the "Company") opposes the unauthorized disclosure of any nonpublic information acquired in the course of your service with the Company and the misuse of material nonpublic information in securities trading. Any such actions will be deemed violations of this Insider Trading Policy (this "Policy").

Legal prohibitions on insider trading

The antifraud provisions of U.S. federal securities laws prohibit directors, officers, employees and other individuals who possess material nonpublic information from trading on the basis of that information. Transactions will be considered "on the basis of" material nonpublic information if the person engaged in the transaction was aware of the material nonpublic information at the time of the transaction. It is not a defense that the person did not "use" the information for purposes of the transaction.

Disclosing material nonpublic information directly or indirectly to others who then trade based on that information or making recommendations or expressing opinions as to transactions in securities while aware of material nonpublic information (which is sometime referred to as "tipping") is also illegal. Both the person who provides the information, recommendation or opinion and the person who trades based on it may be liable.

These illegal activities are commonly referred to as "insider trading". State securities laws and securities laws of other jurisdictions also impose restrictions on insider trading.

In addition, a company, as well as individual directors, officers and other supervisory personnel, may be subject to liability as "controlling persons" for failure to take appropriate steps to prevent insider trading by those under their supervision, influence or control.

Detection and prosecution of insider trading

The U.S. Securities and Exchange Commission (the "SEC"), The Financial Industry Regulatory Authority ("FINRA") and the stock exchanges use sophisticated electronic surveillance techniques to investigate and detect insider trading, and the SEC and the U.S. Department of Justice pursue insider trading violations vigorously. Cases involving trading through foreign accounts, trading by family members and friends and trading involving only a small number of shares have been successfully prosecuted.

Compliance Officers

Please direct any questions, requests or reports as to any of the matters discussed in this Policy to the Chief Executive Officer or the Chief Financial Officer (each, a "Compliance Officer" and collectively, the "Compliance Officers"). The Compliance Officers are generally responsible for the administration of this Policy. The Compliance Officers may select others to assist with the execution of his or her duties.

Reporting violations

It is your responsibility to help enforce this Policy. You should be alert to possible violations and promptly report violations or suspected violations of this Policy to a Compliance Officer at ceo@igmbio.com or cfo@igmbio.com, or, if one or both of the Compliance Officers are implicated in your report, then you should report it in accordance with the Company's Whistleblower Policy. If your situation requires that your identity be kept secret, your anonymity will be preserved to the greatest extent reasonably possible, or otherwise permitted by law. If you wish to remain anonymous, send a letter addressed to a Compliance Officer at IGM Biosciences, Inc., 325 E. Middlefield Road, Mountain View, California 94043,

or contact the whistleblower hotline at (855) 790-0880 or via secure web form at https://www.whistleblowerservices.com/IGMS. If you make an anonymous report, please provide as much detail as possible, including any evidence that you believe may be relevant to the issue.

Personal responsibility

The ultimate responsibility for complying with this Policy and applicable laws and regulations rests with you. You should use your best judgment at all times and consult with your legal and financial advisors, as needed. We advise you to seek assistance if you have any questions at all. The rules relating to insider trading can be complex, and a violation of insider trading laws can carry severe consequences.

PERSONS AND TRANSACTIONS COVERED BY THIS POLICY

Persons covered by this Policy

This Policy applies to all directors, officers, employees, consultants, contractors and advisors of the Company. References in this Policy to "you" (as well as general references to directors, officers, employees, consultants, contractors and advisors of the Company) should also be understood to include members of your immediate family, persons with whom you share a household, persons that are your economic dependents and any other individuals or entities whose transactions in securities you influence, direct or control (including, for example, a venture or other investment fund, if you influence, direct or control transactions by the fund). You are responsible for making sure that these other individuals and entities comply with this Policy.

Types of transactions covered by this Policy

Except as discussed in the section entitled "Limited Exceptions", this Policy applies to *all* transactions *involving* the securities of the Company or the securities of other companies as to which you possess material nonpublic information obtained in the course of your service with the Company. This Policy therefore applies to (i) purchases, sales and other transfers of common stock, options, warrants, preferred stock, debt securities (such as debentures, bonds and notes) and other securities and any offer to engage in the foregoing transactions, (ii) any disposition in the form of a gift of any securities of the Company, (iii) any distribution to holders of interests in an entity if the entity is subject to this Policy, and (iv) any arrangements that affect economic exposure to changes in the prices of these securities and any offer to engage in such arrangements. These arrangements may include, among other things, transactions in derivative securities (such as exchange-traded put or call options), hedging transactions, short sales and certain decisions with respect to participation in benefit plans. This Policy also applies to any offers with respect to the transactions discussed above. You should note that there are no exceptions from insider trading laws or this Policy based on the size of the transaction.

Responsibilities regarding the nonpublic information of other companies

This Policy prohibits the unauthorized disclosure or other misuse of any nonpublic information of other companies, such as the Company's distributors, vendors, customers, collaborators, suppliers and competitors. This Policy also prohibits insider trading and tipping based on the material nonpublic information of other companies.

Applicability of this Policy after your departure

You are expected to comply with this Policy until such time as you are no longer affiliated with the Company *and* you no longer possess any material nonpublic information subject to this Policy. In addition, if you are subject to a trading blackout under this Policy at the time you cease to be affiliated with the Company, you are expected to abide by the applicable trading restrictions until at least the end of the relevant blackout period.

No exceptions based on personal circumstances

There may be instances where you suffer financial harm or other hardship or are otherwise required to forgo a planned transaction because of the restrictions imposed by this Policy. Personal financial emergency or other personal circumstances are not mitigating factors under securities laws and will not excuse a failure to comply with this Policy.

MATERIAL NONPUBLIC INFORMATION

"Material" information

Information should be regarded as material if there is a substantial likelihood that a reasonable investor would consider it important in deciding whether to buy, hold or sell securities or would view the information as significantly altering the total mix of information in the marketplace about the issuer of the security. In general, any information that could reasonably be expected to affect the market price of a security is likely to be material. Either positive or negative information may be material.

It is not possible to define all categories of "material" information. However, some examples of information that would often be regarded as material include information with respect to:

a. Clinical trial results;

b. Financial results, financial condition, earnings pre-announcements, guidance, projections or forecasts, particularly if inconsistent with the expectations of the investment community;

c. Restatements of financial results, or material impairments, write-offs or restructurings;

d. Changes in independent auditors, or notification that the Company may no longer rely on an audit report;

e. Business plans or budgets;

f. Creation of significant financial obligations, or any significant default under or acceleration of any financial obligation;

g. Impending bankruptcy or financial liquidity problems;

h. Significant developments involving business relationships, including execution, modification or termination of significant agreements or orders with partners, collaborators, customers, suppliers, distributors, manufacturers or other business partners;

i. Product introductions, modifications, defects or recalls or significant pricing changes or other product announcements of a significant nature;

j. Significant developments in research and development or relating to intellectual property;

k. Significant legal or regulatory developments, whether actual or threatened;

l. Major events involving the Company's securities, including calls of securities for redemption, adoption of stock repurchase programs, option repricings, stock splits, changes in dividend policies, public or private securities offerings, modification to the rights of security holders or notice of delisting;

m. Significant corporate events, such as a pending or proposed merger, joint venture or tender offer, a significant investment, the acquisition or disposition of a significant business or asset or a change in control of the company;

n. Significant cybersecurity incidents and data breaches; and

o. Major personnel changes, such as changes in senior management or lay-offs.

If you have any questions as to whether information should be considered "material", you should consult with a Compliance Officer. In general, it is advisable to resolve any close questions as to the materiality of any information by assuming that the information is material.

“Nonpublic” information

Information is considered nonpublic if the information has not been broadly disseminated to the public for a sufficient period to be reflected in the price of the security. As a general rule, information must be considered nonpublic until the start of the second ***full trading day*** after the information is broadly distributed to the public in a press release, a public filing with the SEC, a pre-announced public webcast or another broad, non-exclusionary form of public communication. However, depending upon the form of the announcement and the nature of the information, it is possible that information may not be fully absorbed by the marketplace until a later time. Any questions as to whether information is nonpublic should be directed to a Compliance Officer.

The term “trading day” means a day on which national stock exchanges and the National Association of Securities Dealers, Inc. Automated Quotation System are open for trading. A “full” trading day has elapsed when, after the public disclosure, trading in the relevant security has opened and then closed.

POLICIES REGARDING MATERIAL NONPUBLIC INFORMATION

Confidentiality of nonpublic information

The unauthorized use or disclosure of nonpublic information relating to the Company or other companies is prohibited. All nonpublic information you acquire in the course of your service with the Company may only be used for legitimate Company business purposes. In addition, nonpublic information of others should be handled in accordance with the terms of any relevant nondisclosure agreements, and the use of any such nonpublic information should be limited to the purpose for which it was disclosed.

You must use all reasonable efforts to safeguard nonpublic information in the Company's possession. You may not disclose nonpublic information about the Company or any other company, unless required by law, or unless (i) disclosure is required for legitimate Company business purposes, (ii) you are authorized to disclose the information and (iii) appropriate steps have been taken to prevent misuse of that information (including entering an appropriate nondisclosure agreement that restricts the disclosure and use of the information, if applicable). This restriction also applies to internal communications within the Company and to communications with agents of the Company. In cases where disclosing nonpublic information to third parties is required, you should coordinate with a Compliance Officer.

All directors, officers, employees, consultants, contractors and advisors of the Company are required to sign and comply with an At Will Employment, Confidential Information, Invention Assignment, and Arbitration Agreement or be subject to a similar agreement or obligation as determined by the Company.

No trading on material nonpublic information

Except as discussed in the section entitled "Limited Exceptions", you may not, directly or indirectly through others, engage in any transaction involving the Company's securities *while aware of* material nonpublic information relating to the Company. It is not an excuse that you did not "use" the information in your transaction.

Similarly, you may not engage in transactions involving the securities of any other company if you are aware of material nonpublic information about that company (except to the extent the transactions are analogous to those presented in the section entitled "Limited Exceptions"). For example, you may be involved in a proposed transaction involving a prospective business relationship or transaction with another company. If information about that transaction constitutes material nonpublic information for that other company, you would be prohibited from engaging in transactions involving the securities of that other company (as well as transactions involving Company securities, if that information is material to the Company). It is important to note that "materiality" is different for different companies. Information that is not material to the Company may be material to another company.

No disclosing material nonpublic information for the benefit of others

You may not disclose material nonpublic information concerning the Company or any other company to friends, family members or any other person or entity not authorized to receive such information where such person or entity may benefit by trading on the basis of such information. In addition, you may not make recommendations or express opinions on the basis of material nonpublic information as to trading in the securities of companies to which such information relates. You are prohibited from engaging in these actions whether or not you derive any profit or personal benefit from doing so.

Obligation to disclose material nonpublic information to the Company

You may not enter into any transaction, including those discussed in the section entitled "Limited Exceptions", unless you have disclosed any material nonpublic information that you become aware of in the course of your service with the Company, and that senior management is not aware of, to a Compliance Officer. If you are a member of senior management, the information must be disclosed to the Chief Executive Officer, and if you are the Chief Executive Officer or a director, you must disclose the information to the Board of Directors, before any transaction is permissible.

Responding to outside inquiries for information

In the event you receive an inquiry from someone outside of the Company, such as a stock analyst, for information, you should refer the inquiry to the Chief Executive Officer, the Chief Financial Officer or the Company's Head of Investor Relations, if any. The Company is required under Regulation FD (Fair Disclosure) of the U.S. federal securities laws to avoid the selective disclosure of material nonpublic information. In general, the regulation provides that when a public company discloses material nonpublic information, it must provide broad, non-exclusionary access to the information. Violations of this regulation can subject the company to SEC enforcement actions, which may result in injunctions and severe monetary penalties. The Company has established procedures for releasing material information in a manner that is designed to achieve broad public dissemination of the information immediately upon its release in compliance with applicable law. Please consult the Company's External Communications Policy for more details.

TRADING BLACKOUT PERIODS

To limit the likelihood of trading at times when there is a significant risk of insider trading exposure, the Company has instituted quarterly trading blackout periods and may institute special trading blackout periods from time to time. In addition, to comply with applicable legal requirements, the Company may also institute blackout periods that prevent directors and officers from trading in Company securities at a time when employees are prevented from trading Company securities in the Company's 401(k) plan.

It is important to note that whether or not you are subject to blackout periods, you remain subject to the prohibitions on trading on the basis of material nonpublic information and any other applicable restrictions in this Policy.

Quarterly blackout periods

Except as discussed in the section entitled "Limited Exceptions", directors, executive officers and other employees and agents identified by the Company must refrain from conducting transactions involving the Company's securities during quarterly blackout periods. Even if you are not specifically identified as being subject to quarterly blackout periods, you should exercise caution when engaging in transactions during quarterly blackout periods because of the heightened risk of insider trading exposure.

Quarterly blackout periods begin at the end of the last day of each fiscal quarter and end at the start of the third full trading day following the date of public disclosure of the financial results for that fiscal quarter. This period is a particularly sensitive time for transactions involving the Company's securities from the perspective of compliance with applicable securities laws due to the fact that, during this period, individuals may often possess or have access to material nonpublic information relevant to the expected financial results for the quarter.

Individuals subject to quarterly blackout periods are listed on the covered persons list maintained by the Compliance Officers (the "Covered Persons List"). From time to time, the Company may identify other persons who should be subject to quarterly blackout periods, and a Compliance Officer may update and revise the Covered Persons List as appropriate; provided, that the consent of the Board of Directors or an independent committee of the Board of Directors will be required for any update that removes one or more persons from the applicable section of the Covered Persons List.

Special blackout periods

From time to time, the Company may also prohibit directors, officers, employees, consultants, contractors and advisors from engaging in transactions involving the Company's securities when, in the judgment of a Compliance Officer, a trading blackout is warranted. The Company will generally impose special blackout periods when there are material developments known to the Company that have not yet been disclosed to the public. For example, the Company may impose a special blackout period in anticipation of announcing material clinical data results or a significant transaction or business development. However, special blackout periods may be declared for any reason.

The Company will notify those persons subject to a special blackout period by providing a notice in writing or via email. Each person who has been so identified and notified by the Company may not engage in any transaction involving the Company's securities until instructed otherwise by a Compliance Officer, and should not disclose to others the fact of such suspension of trading.

Regulation BTR blackouts

Directors and executive officers may also be subject to trading blackouts pursuant to Regulation Blackout Trading Restriction ("Reg. BTR") under U.S. federal securities laws. In general, Reg. BTR prohibits any director or executive officer from engaging in certain transactions involving Company securities during periods when 401(k) plan participants are prevented from purchasing, selling or otherwise acquiring or transferring an interest in certain securities held in individual account plans. Any profits realized from a transaction that violates Reg. BTR are recoverable by the Company, regardless of the intentions of the director or officer effecting the transaction. In addition, individuals who engage in such transactions are subject to sanction by the SEC as well as potential criminal liability. The Company has provided, or will provide, separate memoranda and other appropriate materials to its directors and executive officers regarding compliance with Reg. BTR.

The Company will notify directors and officers if they are subject to a blackout trading restriction under Reg. BTR. Failure to comply with an applicable trading blackout in accordance with Reg. BTR is a violation of law and this Policy.

No "safe harbors"

There are no unconditional "safe harbors" for trades made at particular times, and all persons subject to this Policy should exercise good judgment at all times. Even when a quarterly blackout period is not in effect, you may be prohibited from engaging in transactions involving the Company's securities because you possess material nonpublic information, are subject to a special blackout period or are otherwise restricted under this Policy.

PRE-CLEARANCE OF TRADES

Individuals subject to pre-clearance requirements are listed on the Covered Persons List. From time to time, the Company may identify other persons who should be subject to pre-clearance requirements, and a Compliance Officer may update and revise the Covered Persons List as appropriate; provided, that the consent of the Board of Directors or an independent committee of the Board of Directors will be required for any update that removes one or more persons from the applicable section of the Covered Persons List.

Except as discussed in the section entitled "Limited Exceptions", the individuals so identified on the Covered Persons List should refrain from engaging in any transaction involving the Company's securities without first obtaining pre-clearance of the transaction from a Compliance Officer. This is done by submitting a completed and signed pre-clearance request, in the form approved by the Compliance Officers, to a Compliance Officer and obtaining the required signature from a Compliance Officer. A Compliance Officer may not engage in a transaction involving the Company's securities unless the Chief Executive Officer has pre-cleared the transaction or, in the case the Compliance Officer engaging in the transaction is the Chief Executive Officer, another Compliance Officer has pre-cleared the transaction.

These pre-clearance procedures are intended to decrease insider trading risks associated with transactions by individuals with regular or special access to material nonpublic information. In addition, requiring pre-clearance of transactions by directors and officers facilitates compliance with Rule 144 resale restrictions under the Securities Act of 1933, as amended, the liability and reporting provisions of Section 16 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Reg. BTR. Pre-clearance of a trade, however, is not a defense to a claim of insider trading and does not excuse you from otherwise complying with insider trading laws or this Policy.

A Compliance Officer is under no obligation to approve a transaction submitted for pre-clearance, and may determine not to permit the transaction.

ADDITIONAL RESTRICTIONS AND GUIDANCE

This section addresses certain types of transactions that may expose you and the Company to significant risks. You should understand that, even though a transaction may not be expressly prohibited by this section, you are responsible for ensuring that the transaction otherwise complies with other provisions in this Policy that may apply to the transaction, such as the general prohibition against insider trading as well as pre-clearance procedures and blackout periods, to the extent applicable.

Short sales

Short sales (*i.e.,* the sale of a security that must be borrowed to make delivery) and "selling short against the box" (*i.e.,* a sale with a delayed delivery) with respect to Company securities are prohibited under this Policy. Short sales may signal to the market possible bad news about the Company or a general lack of confidence in the Company's prospects, and an expectation that the value of the Company's securities will decline. In addition, short sales are effectively a bet against the Company's success and may reduce the seller's incentive to improve the Company's performance. Short sales may also create a suspicion that the seller is engaged in insider trading.

Derivative securities and hedging transactions

You are prohibited from engaging in transactions in publicly-traded options, such as puts and calls, and other derivative securities with respect to the Company's securities. This prohibition extends to any hedging or similar transaction designed to decrease the risks associated with holding Company securities. Stock options, stock appreciation rights and other securities issued pursuant to Company benefit plans or other compensatory arrangements with the Company are also subject to this prohibition; *provided*, *however*, as described in the "Limited Exceptions" section of this Policy, you are not prohibited from exercising any stock options issued under any of the Company's benefit plans or other compensatory arrangements in accordance with the terms of such plans or arrangements.

Transactions in derivative securities may reflect a short-term and speculative interest in the Company's securities and may create the appearance of impropriety, even where a transaction does not involve trading on inside information. Trading in derivatives may also focus attention on short-term performance at the expense of the Company's long-term objectives. In addition, the application of securities laws to derivatives transactions can be complex, and persons engaging in derivatives transactions may subject themselves to an increased risk of violating securities laws.

Using Company securities as collateral for loans

You may not pledge Company securities as collateral for loans. If you default on the loan, the lender may sell the pledged securities as collateral in a foreclosure sale. The sale, even though not initiated at your request, is still considered a sale for your benefit and, if made at a time when you are aware of material nonpublic information or otherwise are not permitted to trade in Company securities, may result in inadvertent insider trading violations, Section 16 and Reg. BTR violations (for officers and directors), violations of this Policy and unfavorable publicity for you and the Company.

Holding Company securities in margin accounts

You may not hold Company securities in margin accounts. Under typical margin arrangements, if you fail to meet a margin call, the broker may be entitled to sell securities held in the margin account without your consent. The sale, even though not initiated at your request, is still considered a sale for your benefit and, if made at a time when you are aware of material nonpublic information or are otherwise not permitted

to trade, may result in inadvertent insider trading violations, Section 16 and Reg. BTR violations (for officers and directors), violations of this Policy and unfavorable publicity for you and the Company.

Placing open orders with brokers

Except in accordance with an approved trading plan (as discussed below), you should exercise caution when placing open orders, such as limit orders or stop orders, with brokers, particularly where the order is likely to remain outstanding for an extended period of time. If you are subject to the blackout window, open orders should be canceled prior to entering a blackout window, as this may result in the execution of a trade at a time when you are aware of material nonpublic information or otherwise are not permitted to trade in Company securities, which may result in inadvertent insider trading violations, Section 16 and Reg. BTR violations (for officers and directors), violations of this Policy and unfavorable publicity for you and the Company. If you are subject to blackout periods or pre-clearance requirements, you should so inform any broker with whom you place any open order at the time it is placed.

LIMITED EXCEPTIONS

The following are certain limited exceptions to the quarterly and special blackout period restrictions and pre-clearance requirements imposed by the Company under this Policy. Please be aware that even if a transaction is subject to an exception to this Policy, you will need to separately assess whether the transaction complies with applicable law. For example, even if a transaction is indicated as exempt from this Policy, you may need to comply with the "short-swing" trading restrictions under Section 16 of the Exchange Act, to the extent applicable. You are responsible for complying with applicable law at all times.

Transactions pursuant to a trading plan that complies with SEC rules

The SEC has enacted rules that provide an affirmative defense against alleged violations of U.S. federal insider trading laws for transactions pursuant to trading plans that meet certain requirements. In general, these rules, as set forth in Rule 10b5-1 under the Exchange Act, provide for an affirmative defense if you enter into a contract, provide instructions or adopt a written plan for trading securities when you are not aware of material nonpublic information. The contract, instructions or plan must (i) specify the amount, price and date of the transaction, (ii) specify an objective method for determining the amount, price and date of the transaction and/or (iii) place any subsequent discretion for determining the amount, price and date of the transaction in another person who is not, at the time of the transaction, aware of material nonpublic information.

Transactions made pursuant to a written trading plan that (i) complies with the affirmative defense set forth in Rule 10b5-1, (ii) complies with the Requirements for Trading Plans set forth in Schedule I and (iii) is approved by a Compliance Officer (or, if the plan is being adopted by a Compliance Officer, by the other Compliance Officer), are not subject to the restrictions in this Policy against trades made while aware of material nonpublic information or to the pre-clearance procedures or blackout periods established under this Policy. In approving a trading plan, a Compliance Officer may, in furtherance of the objectives expressed in this Policy, impose criteria in addition to those set forth in Rule 10b5-1. You should therefore confer with a Compliance Officer prior to entering into any trading plan.

The SEC rules regarding trading plans are complex and must be complied with completely to be effective. The description provided above is only a summary, and the Company strongly advises that you consult with your legal advisor if you intend to adopt a trading plan. While trading plans are subject to review and approval by the Company, the individual adopting the trading plan is ultimately responsible for compliance with Rule 10b5-1 and ensuring that the trading plan complies with this Policy.

Trading plans must be filed with a Compliance Officer and must be accompanied with an executed certificate stating that the trading plan complies with Rule 10b5-1 and any other criteria established by the Company. The Company may publicly disclose information regarding trading plans that you may enter.

Receipt and vesting of stock options, restricted stock and stock appreciation rights

The trading restrictions under this Policy do not apply to the acceptance or purchase of stock options, restricted stock or stock appreciation rights issued or offered by the Company. The trading restrictions under this Policy also do not apply to the vesting, cancellation or forfeiture of stock options, restricted stock or stock appreciation rights in accordance with applicable plans and agreements.

Exercise of stock options for cash

The trading restrictions under this Policy do not apply to the exercise of stock options for cash under the Company's stock option plans. Likewise, the trading restrictions under this Policy do not apply to the exercise of stock options in a stock-for-stock exercise with the Company or an election to have the Company withhold securities to cover tax obligations in connection with an option exercise, so long as that election

is irrevocable and made in writing at a time when a trading blackout is not in place and the individual is not in possession of material nonpublic information. However, the trading restrictions under this Policy do apply to (i) the sale of any securities issued upon the exercise of a stock option, (ii) a cashless exercise of a stock option through a broker, since this involves selling a portion of the underlying shares to cover the costs of exercise, and (iii) any other market sale for the purpose of generating the cash needed to pay the exercise price of an option.

Purchases pursuant to the employee stock purchase plan

The trading restrictions in this Policy do not apply to elections with respect to participation in the Company's employee stock purchase plan or to purchases of securities under the plan. However, the trading restrictions do apply to any subsequent sales of any such securities.

Certain 401(k) plan transactions

The trading restrictions in this Policy do not apply to purchases of Company stock in the 401(k) plan resulting from periodic contributions to the plan based on your payroll contribution election. The trading restrictions do apply, however, to elections you make under the 401(k) plan to (i) increase or decrease the amount of your contributions under the 401(k) plan if such increase or decrease will increase or decrease the amount of your contributions that will be allocated to a Company stock fund, (ii) increase or decrease the percentage of your contributions that will be allocated to a Company stock fund, (iii) move balances into or out of a Company stock fund, (iv) borrow money against your 401(k) plan account if the loan will result in liquidation of some or all of your Company stock fund balance, and (v) pre-pay a plan loan if the pre-payment will result in the allocation of loan proceeds to a Company stock fund.

Stock splits, stock dividends and similar transactions

The trading restrictions under this Policy do not apply to a change in the number of securities held as a result of a stock split or stock dividend applying equally to all securities of a class, or similar transactions.

Inheritance and estate transfers

The trading restrictions under this Policy do not apply to transfers by will or the laws of descent or distribution and, provided that prior written notice is provided to the Compliance Officer, distributions or transfers (such as certain tax planning or estate planning transfers) that effect only a change in the form of beneficial interest without changing your pecuniary interest in the Company's securities.

Other exceptions

Any other exception from this Policy must be approved by a Compliance Officer, in consultation with the Board of Directors or an independent committee of the Board of Directors.

COMPLIANCE WITH SECTION 16 OF THE SECURITIES EXCHANGE ACT

Obligations under Section 16

Section 16 of the Exchange Act and the related rules and regulations, set forth (i) reporting obligations, (ii) limitations on "short-swing" transactions and (iii) limitations on short sales and other transactions applicable to directors, officers, large shareholders and certain other persons. The Company has provided, or will provide, memoranda and other materials addressing these matters.

The Company has determined that those persons identified as Section 16 persons in the Covered Persons List are required to comply with Section 16 of the Exchange Act, and the related rules and regulations, because of their positions with the Company. From to time, a Compliance Officer may update and revise the list of identified Section 16 persons as appropriate to reflect the election of new officers or directors, any change in the responsibilities of officers or other employees and any promotions, demotions, resignations or departures.

The Covered Persons List should not necessarily be considered an exhaustive list of persons subject to Section 16 requirements at any given time. Even if you are not listed on the Covered Persons List as a Section 16 person, you may be subject to Section 16 reporting obligations because of your shareholdings, for example.

Notification requirements to facilitate Section 16 reporting

To facilitate timely reporting of transactions pursuant to Section 16 requirements, each person subject to Section 16 reporting requirements must provide, or must ensure that his or her broker provides, the Company with detailed information (*e.g.,* trade date, number of shares, exact price, *etc.*) regarding his or her transactions involving the Company's securities, including gifts, transfers, pledges and transactions pursuant to a trading plan, both prior to (to confirm compliance with pre-clearance procedures, if applicable) and promptly following execution.

Personal responsibility

The obligation to file Section 16 reports, and to otherwise comply with Section 16, is personal. The Company is not responsible for the failure to comply with Section 16 requirements.

ADDITIONAL INFORMATION

Amendments

We are committed to continuously reviewing and updating our policies and procedures. The Company therefore reserves the right to amend, alter or terminate this Policy at any time and for any reason, subject to applicable law.

Current Version of Policy

A copy of the Company's current policies regarding insider trading may be obtained by contacting a Compliance Officer.

* * *

Nothing in this Insider Trading Policy creates or implies an employment contract or term of employment. Employment at the Company is employment at-will. Employment at-will may be terminated with or without cause and with or without notice at any time by the employee or the Company. Nothing in this Insider Trading Policy shall limit the right to terminate employment at-will. No employee of the Company has any authority to enter into any agreement for employment for a specified period of time or to make any agreement or representation contrary to the Company's policy of employment at-will. Only the Chief Executive Officer of the Company has the authority to make any such agreement, which must be in writing.

The policies in this Insider Trading Policy do not constitute a complete list of Company policies or a complete list of the types of conduct that can result in discipline, up to and including discharge.

SCHEDULE I

IGM BIOSCIENCES, INC.
REQUIREMENTS FOR TRADING PLANS

For transactions under a trading plan to be exempt from (i) the prohibitions in the company's insider trading policy with respect to transactions made while aware of material nonpublic information and (ii) the pre clearance procedures and blackout periods established under the insider trading policy, the trading plan must comply with the affirmative defense set forth in Exchange Act Rule 10b5-1 and must meet the following requirements:

1. The trading plan must be in writing and signed by the person adopting the trading plan.

2. The trading plan must be adopted at a time when:
   a. the person adopting the trading plan is not aware of any material nonpublic information; and
   b. there is no quarterly, special or other trading blackout in effect with respect to the person adopting the plan.

3. The trading plan must be entered in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1, and the person adopting the trading plan must act in good faith with respect to the trading plan.

4. The trading plan must include representations that, on the date of adoption of the trading plan, the person adopting the trading plan:
   a. is not aware of material nonpublic information about the securities or the Company; and
   b. is adopting the trading plan in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1.

5. The person adopting the trading plan may not have entered into or altered a corresponding or hedging transaction or position with respect to the securities subject to the trading plan and must agree not to enter into any such transaction while the trading plan is in effect.

6. The first trade under the trading plan may not occur until the expiration of a cooling-off period consisting of the later of (i) 90 calendar days after the adoption of the trading plan and (ii) two business days after the filing by the Company of its financial results in a Form 10-Q or Form 10-K for the completed fiscal quarter in which the trading plan was adopted (but, in any event, this required cooling-off period is subject to a maximum of 120 days after the adoption of the trading plan).

7. The trading plan must have a minimum term of one year (starting from date of adoption of the trading plan).

8. All transactions during the term of the trading plan (except for the other "Limited Exceptions" identified in the company's insider trading policy and *bona fide* gifts) must be conducted through the trading plan. In addition, the person adopting the trading plan may not have an outstanding (and may not subsequently enter into any additional) trading plan except as permitted by Rule 10b5-1. For example, as contemplated by Rule 10b5-1, a person may adopt a new trading plan before the scheduled termination date of an existing trading plan, so long as the first scheduled trade under the new trading plan does not occur prior to the last scheduled trade(s) of the existing trading plan and otherwise complies with these guidelines. Termination of the existing trading plan prior to its scheduled termination date may impact the timing of the first trade or the availability of the affirmative defense for the new trading plan;

therefore, persons adopting a new trading plan are advised to exercise caution and consult with the Compliance Officer prior to the early termination of an existing trading plan.

9. Any modification or change to the amount, price or timing of transactions under the trading plan is deemed the termination of the trading plan, and the adoption of a new trading plan ("Modification"). Therefore, a Modification is subject to the same conditions as a new trading plan as set forth in Sections 1 through 8 herein.

10. Within the six month period preceding the adoption or a Modification of a trading plan, a person may not have otherwise adopted or done a Modification to a trading plan more than once.

11. A person may adopt a trading plan designed to cover a single trade only once in any consecutive 12-month period except as permitted by Rule 10b5-1.

12. If the person that adopted the trading plan terminates the plan prior to its stated duration, he or she may not trade in the company's securities until after the expiration of 30 calendar days following termination and then only in accordance with the Company's insider trading policy.

13. The company must be promptly notified of any Modification or termination of a trading plan and any suspension of trading under the trading plan.

14. If the trading plan grants discretion to a stockbroker or other person with respect to the execution of trades under the trading plan:
    a. trades made under the trading plan must be executed by someone other than the stockbroker or other person that executes trades in other securities for the person adopting the trading plan;
    b. the person adopting the trading plan may not confer with the person administering the trading plan regarding the company or its securities; and
    c. the person administering the trading plan must provide prompt notice to the company of the execution of a transaction pursuant to the plan.

15. All transactions under the trading plan must be in accordance with applicable law.

16. The trading plan (including any Modification) must meet such other requirements as the Compliance Officer may determine.

17. A trading plan and any modification thereto must be filed with the company's Compliance Officer with an executed certificate stating that the trading plan complies with the criteria set forth above (the "compliance certificate"). A trading plan is not effectively adopted or modified until it has been signed by the person adopting the trading plan and the brokerage firm that will execute trades under the trading plan, and the company's Compliance Officer has executed the compliance certificate.

18. Any trading plans adopted or modified prior to February 27, 2023 are permitted to continue in place until all trades are executed thereunder or they expire by their terms ("**Grandfathered Plans**"). If the person undertakes a Modification of a Grandfathered Plan on or after such date, then the Modification must meet all of the requirements set forth herein.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-275519, 333-268136, and 333-258641 on Form S-3 and Registration Statement Nos. 333-277744, 333-248111, 333-254877, 333-263927, 333-270991, 333-237411, and 333-233826 on Form S-8 of our report dated March 6, 2025, relating to the financial statements of IGM Biosciences, Inc. appearing in this Annual Report on Form 10-K for the year ended December 31, 2024.

/s/ Deloitte & Touche

San Francisco, California
March 6, 2025

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mary Beth Harler, certify that:

1. I have reviewed this Annual Report on Form 10-K of IGM Biosciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2025

By: /s/ Mary Beth Harler
Mary Beth Harler, M.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Misbah Tahir, certify that:

1. I have reviewed this Annual Report on Form 10-K of IGM Biosciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 6, 2025

By: /s/ Misbah Tahir
Misbah Tahir
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of IGM Biosciences, Inc. (the "Company") on Form 10-K for the year ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mary Beth Harler, hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2025

By: /s/ Mary Beth Harler
Mary Beth Harler, M.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of IGM Biosciences, Inc. (the "Company") on Form 10-K for the year ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Misbah Tahir, hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2025

By: /s/ Misbah Tahir
Misbah Tahir
Chief Financial Officer
(Principal Financial Officer)