
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

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

Delaware
(State or other jurisdiction of
incorporation or organization)

77-0357827
(I.R.S. Employer
Identification Number)

**409 Illinois Street
San Francisco, California 94158
(415) 978-1200**
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

ENRIQUE CONTERNO
Chief Executive Officer and Director
FibroGen, Inc.
409 Illinois Street
San Francisco, California 94158
(415) 978-1200
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
NANCY WOJTAS
Cooley LLP
3175 Hanover Street
Palo Alto, California 94304
(650) 843-5000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- a base prospectus which covers the offering, issuance and sale of such indeterminate number of shares of common stock and preferred stock, such indeterminate principal amount of debt securities, and such indeterminate number of warrants to purchase common stock, preferred stock and/or debt securities; and
- a prospectus covering the offering, issuance and sale by FibroGen, Inc. of up to a maximum aggregate offering price of \$200,000,000 of FibroGen, Inc.'s common stock that may be offered, issued and sold from time to time under an equity distribution agreement with Goldman Sachs & Co. LLC.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in one or more prospectus supplements to the base prospectus.

The prospectus relating to the equity distribution agreement immediately follows the base prospectus. The common stock that may be offered, issued and sold by FibroGen, Inc. under the equity distribution agreement prospectus is included in the securities that may be offered, issued and sold by FibroGen, Inc. under the base prospectus. Upon termination of the equity distribution agreement, any portion of the \$200,000,000 included in the equity distribution agreement prospectus that is not sold pursuant to the equity distribution agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement.



**Common Stock
Preferred Stock
Debt Securities
Warrants**

From time to time, FibroGen, Inc. may offer and sell any combination of the securities described in this prospectus, either individually or in combination. We may also offer common stock upon conversion of preferred stock, common stock or preferred stock upon conversion of debt securities, or common stock, preferred stock or debt securities upon the exercise of warrants.

We will provide the specific terms of these offerings and securities in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before buying any of the securities being offered.

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol "FGEN." On August 5, 2022, the last reported sale price of our common stock was \$14.51 per share. The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on the Nasdaq Global Select Market or other securities exchange of the securities covered by the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. Before making an investment decision, you should review carefully the risks described under the heading "[Risk Factors](#)" on page 5 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectuses we have authorized for use in connection with a specific offering, and under similar headings in the documents that are incorporated by reference into this prospectus.

This prospectus may not be used to consummate a sale of securities unless accompanied by a prospectus supplement.

The securities may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. The supplements to this prospectus will provide the specific terms of the plan of distribution. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and options to purchase additional shares will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is August 8, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing an “automatic shelf” registration process available to “well-known seasoned issuers,” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration statement, we may offer and sell from time to time in one or more offerings the common stock, preferred stock, debt securities, warrants or any combination of these securities described in this prospectus. No limit exists on the aggregate number of shares of common stock, preferred stock or warrants, or the amount of debt securities we may sell pursuant to the registration statement. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus. We urge you to read carefully this prospectus, any applicable prospectus supplement and any free writing prospectuses we have authorized for use in connection with a specific offering, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before buying any of the securities being offered.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus, any related prospectus supplement and in any free writing prospectus that we may authorize for use in connection

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with an offering. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, any related prospectus supplement and the documents incorporated by reference into this prospectus, any related prospectus supplement and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, any related prospectus supplement, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus captioned “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and any related prospectus supplement and the offering of our securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus and any related prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of our securities and the distribution of this prospectus and any related prospectus supplement outside the United States. This prospectus and any related prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus and any related prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” and elsewhere in this prospectus, any related prospectus supplement and documents incorporated by reference into this prospectus and any related prospectus supplement. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section titled “Where You Can Find More Information.”

“FibroGen,” the FibroGen logo and other trademarks or service marks of FibroGen, Inc. appearing or incorporated by reference in this prospectus and any related prospectus supplement are the property of FibroGen, Inc. This prospectus and any related prospectus supplement, including the information incorporated by reference into this prospectus and any related prospectus supplement, include trademarks, service marks and trade names owned by others. All trademarks, service marks and trade names included or incorporated by reference in this prospectus, any related prospectus supplement or any related free writing prospectus are the property of their respective owners.

PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere in this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

References in this prospectus to “FibroGen,” “we,” “us” and “our” refer to FibroGen, Inc., a Delaware corporation, and its subsidiaries. Our website address is <http://www.fibrogen.com>. We do not incorporate the information on our website into this prospectus, and you should not consider it part of this prospectus.

FibroGen, Inc.

Overview

We are a leading biopharmaceutical company discovering, developing and commercializing a pipeline of first-in-class therapeutics. We apply our pioneering expertise in hypoxia-inducible factor (“HIF”) biology, 2-oxoglutarate enzymology, and connective tissue growth factor (“CTGF”) biology to advance innovative medicines for the treatment of anemia, fibrotic disease, and cancer.

We have a pipeline of late-stage clinical programs as well as pre-clinical drug candidates at various stages of development that include both small molecules and biologics. We have leveraged our internally developed 2-oxoglutarate and CTGF biology expertise as well as in-licensing of additional programs, such as antibodies targeting Gal-9 and CCR8, to further enhance our preclinical pipeline. Our key products consist of (1) Roxadustat (HIF-PHI), which is approved in China, Japan, and Europe for treatment of anemia related to chronic kidney disease and (2) Pamrevlumab, an anti-CTGF antibody, that is in Phase 3 studies for idiopathic pulmonary fibrosis, duchenne muscular dystrophy, and locally advanced pancreatic cancer. Our goal is to build a diversified pipeline with novel drugs that will address unmet patient needs in oncology, immunology, and fibrosis.

Risks Associated with our Business

Our business is subject to numerous risks. You should read these risks set forth under the caption “Risk Factors” in the applicable prospectus supplement and contained in our most recent Annual Report on Form 10-K and in our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, before you invest in our common stock.

Corporate Information

We were incorporated in 1993 in Delaware. Our headquarters are located at 409 Illinois Street, San Francisco, California 94158 and our telephone number is (415) 978-1200. Our website address is www.FibroGen.com. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in combination, from time to time under this

prospectus, together with the applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of any offering. We may also offer common stock, preferred stock and/or debt securities upon the exercise of warrants. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity date, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exercise, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- material or special U.S. federal income tax considerations, if any.

The applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. Subject to preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends as may be declared by our board of directors out of legally available funds. Upon our liquidation, dissolution or winding up, holders of our common stock are entitled to share

ratably in all assets remaining after payment of liabilities and the liquidation preferences of any outstanding shares of preferred stock. Holders of common stock have no preemptive rights and no right to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock. In this prospectus, we have summarized certain general features of the common stock under “Description of Capital Stock—Common stock.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common stock being offered.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the designations, voting powers, preferences and rights of the preferred stock, as well as the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the designations, voting powers, preferences and rights of the preferred stock of each series we issue under this prospectus, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that contains the terms of the series of preferred stock we are offering. In this prospectus, we have summarized certain general features of the preferred stock under “Description of Capital Stock—Preferred stock.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

Any debt securities issued under this prospectus will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities under “Description of Debt Securities.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

Warrants. We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or in combination with common stock, preferred stock and/or debt securities. In this prospectus, we have summarized certain general features of the warrants under “Description of Warrants.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as any warrant agreements and warrant certificates that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms

of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants also may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

Use of Proceeds

Except as described in any applicable prospectus supplement or in any free writing prospectuses we have authorized for use in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered by us hereunder, if any, for working capital, capital expenditures and other general corporate purposes. See “Use of Proceeds” in this prospectus.

Nasdaq Global Select Market Listing

Our common stock is listed on the Nasdaq Global Select Market under the symbol “FGEN.” The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on the Nasdaq Global Select Market or other securities exchange of the securities covered by the applicable prospectus supplement.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and discussed under the section titled “Risk Factors” contained in our most recent Annual Report on Form 10-K and in our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety, together with other information in this prospectus, the documents incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering. The risks described in these documents are not the only ones we face, but those that we consider to be material. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below titled “Special Note Regarding Forward-Looking Statements” and the section titled “Forward-Looking Statements” included in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss in greater detail many of these risks under the heading “Risk Factors” contained in the applicable prospectus supplement, in any free writing prospectuses we may authorize for use in connection with a specific offering, and in our most recent annual report on Form 10-K and in our most recent quarterly report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should read this prospectus, any applicable prospectus supplement, together with the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

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

USE OF PROCEEDS

Except as described in any applicable prospectus supplement or in any free writing prospectuses we have authorized for use in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered by us hereunder, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures, or for any other purpose we describe in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 225,000,000 shares of common stock, \$0.01 par value per share, and 125,000,000 shares of preferred stock, \$0.01 par value per share. A description of material terms and provisions of our certificate of incorporation and bylaws affecting the rights of holders of our capital stock is set forth below. The description is intended as a summary, and is qualified in its entirety by reference to our certificate of incorporation and the bylaws.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders, except as otherwise expressly provided in our amended and restated certificate of incorporation or required by applicable law. We have not provided for cumulative voting for the election of directors in our amended and restated certificate of incorporation.

Economic Rights

Dividends and Distributions. Subject to the prior rights of holders of all classes and series of stock at the time outstanding having prior rights as to dividends, the holders of common stock will be entitled to receive, when, as and if declared by our board of directors, out of any assets legally available therefor, such dividends as may be declared from time to time by our board of directors.

Liquidation Rights. In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, the remaining assets legally available for distribution to stockholders shall be distributed ratably among the holders of common stock and any participating preferred stock outstanding at that time.

Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Our amended and restated certificate of incorporation provides that our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 125,000,000 shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation, which could decrease the market price of our common stock. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

We will fix the designations, voting powers, preferences and rights of the preferred stock of each series we issue under this prospectus, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that contains the terms of the series of preferred stock we are offering. We will describe in the applicable prospectus supplement the terms of the series of preferred stock being offered, including, to the extent applicable:

- the title and stated value;

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- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price;
- the dividend rate, period and payment date and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if applicable;
- the provisions for a sinking fund, if applicable;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of material United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law

Certain provisions of Delaware law and our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: acquisition of us by means of a tender offer; acquisition of us by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed “interested stockholders” from engaging in a “business combination” with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an “interested stockholder” is a person who, together with affiliates and associates, owns or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation’s voting stock. Generally, a “business combination” includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Special Stockholder Meetings

Our amended and restated bylaws provide that a special meeting of stockholders may be called at any time by our board of directors or the chairperson of the Board of Directors, our Chief Executive Officer, or the Board of Directors, but such special meetings may not be called by the stockholders or any other person or persons.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and our amended and restated bylaws eliminated the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of our common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation provides for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders. This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for: (1) any derivative action or proceeding brought on behalf of FibroGen; (2) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of FibroGen to FibroGen or FibroGen's stockholders; (3) any action asserting a claim against FibroGen arising pursuant to any provision of the Delaware General Corporation Law, the Certificate of Incorporation or the Bylaws of FibroGen; or (5) any action asserting a claim against FibroGen governed by the internal affairs doctrine. As a result, any action brought by any of our stockholders with regard to any of these matters will need to be filed in the Court of Chancery of the State of Delaware and cannot be filed in any other jurisdiction; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

Although our amended and restated certificate of incorporation contains the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder.

Amendment of Charter Provisions

The amendment of any of the above provisions in our amended and restated certificate of incorporation, except for the provision setting forth the authorized number of shares of our capital stock and making it possible for our board of directors to issue undesignated preferred stock, would require approval by a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock.

The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitation of Liability and Indemnification Matters

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

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Each of our amended and restated certificate of incorporation and amended and restated bylaws provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. Its address is 6201 15th Avenue, Brooklyn, New York 11219. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement related to that series.

Listing on the Nasdaq Global Select Market

Our common stock is listed on the Nasdaq Global Select Market the symbol "FGEN." The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the Nasdaq Global Select Market or any securities market or other exchange of the preferred stock covered by such prospectus supplement.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

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- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities;
- the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities, and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;

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- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than a subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

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If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;

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- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale;”
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities—General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;

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- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to

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exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and in any related free writing prospectuses that we may authorize to be distributed to you, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and be issued in one or more series. Warrants may be offered independently or in combination with common stock, preferred stock or debt securities offered by any prospectus supplement. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The following description of warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that describe the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements applicable to a particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplement related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;

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- a discussion of any material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. The warrants may be exercised as set forth in the prospectus supplement relating to the warrants offered. Unless we otherwise specify in the applicable prospectus supplement, warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the warrants offered thereby. After the close of business on the expiration date, unexercised warrants will become void.

Upon receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable upon such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

Governing Law

Unless we otherwise specify in the applicable prospectus supplement, the warrants and any warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depository or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depository or its participants. Consequently, for securities issued in global form, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

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For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations For Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, DTC will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under the section titled "Special Situations When a Global Security Will Be Terminated" in this prospectus. As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations For Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

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The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the applicable prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, direct sales to the public, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of the underwriters, if any;
- the purchase price of the securities or other consideration therefor, and the proceeds, if any, we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

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We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters or agents that are qualified market makers on the Nasdaq Global Select Market may engage in passive market making transactions in the common stock on the Nasdaq Global Select Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

LEGAL MATTERS

Cooley LLP will pass upon the validity of the securities offered by this prospectus, and any supplement thereto, unless otherwise indicated in the applicable prospectus supplement. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to Amendment No. 1 to the Annual Report on Form 10-K for the year ended December 31, 2021, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-36740):

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on February 28, 2022, and Amendment No. 1 thereto on [Form 10-K/A](#) filed with the SEC on March 4, 2022;
- The information incorporated by reference in our Annual Report on Form 10-K for the year ended December 31, 2021 from our proxy statement on [Schedule 14A](#), filed with the SEC on February 28, 2022;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022, filed with the SEC on May 9, 2022;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2022, filed with the SEC on August 8, 2022;
- our Current Reports on Form 8-K filed with the SEC on [June 8, 2022](#), and [June 17, 2022](#);

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- the description of our common stock set forth in our registration statement on [Form 8-A](#), filed with the SEC on November 12, 2014, including any additional amendment or report filed for the purpose of updating such description, including [Exhibit 4.4](#) to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 2, 2020.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, which will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

FibroGen, Inc.
Attn: Investor Relations
409 Illinois Street
San Francisco, California 94158
Telephone number: (415) 978-1200

PROSPECTUS

\$200,000,000



Common Stock

We, FibroGen Inc., have entered into an equity distribution agreement with Goldman Sachs & Co. LLC, or Goldman Sachs, as our sales agent, dated On August 8, 2022, relating to the sale from time to time of shares of our common stock, par value \$0.01 per share, offered by this prospectus. In accordance with the terms of the equity distribution agreement, under this prospectus we may offer and sell shares of our common stock having an aggregate offering price of up to \$200.0 million from time to time through or to Goldman Sachs, acting as our agent or principal.

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol "FGEN." On August 5, 2022, the last reported sale price of our common stock was \$14.51 per share.

Sales of our common stock, if any, under this prospectus will be made in sales deemed to be an "at the market offering" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, in ordinary brokers' transactions, to or through a market maker, on or through The Nasdaq Global Select Market or any other market venue where the securities may be traded, in the over-the-counter market, in privately negotiated transactions, or through a combination of any such methods of sale. Goldman Sachs may also sell our common stock by any other method permitted by law. Goldman Sachs is not required to sell any specific amount of securities but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Goldman Sachs and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Under the equity distribution agreement, we may also sell common stock to Goldman Sachs agents as principal for its own account, at a price to be agreed upon at the time of sale. If we sell common stock to Goldman Sachs as principal, we will enter into a separate terms agreement with Goldman Sachs, and we will describe the agreement in a separate prospectus supplement or pricing supplement.

The compensation to Goldman Sachs for sales of common stock sold pursuant to the equity distribution agreement will be an amount up to 3.00% of the gross proceeds of any shares of common stock sold under the equity distribution Goldman Sachs. In connection with the sale of the common stock on our behalf, Goldman Sachs will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Goldman Sachs will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Goldman Sachs with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Investing in our securities involves a high degree of risk. Before making an investment decision, you should review carefully and consider all of the information set forth in this prospectus and the documents incorporated by reference in this prospectus. See "[Risk Factors](#)" beginning on page 5 of this prospectus and in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Goldman Sachs & Co. LLC

The date of this prospectus is August 8, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing an “automatic shelf” registration process available to “well-known seasoned issuers,” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration statement, we may offer and sell from time to time in one or more offerings the common stock, preferred stock, debt securities, warrants or any combination of these securities described in this prospectus. No limit exists on the aggregate number of shares of common stock, preferred stock or warrants, or the amount of debt securities we may sell pursuant to the registration statement. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants. Under this prospectus, we may offer shares of our common stock having an aggregate offering price of up to \$200,000,000 from time to time at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in this prospectus, which describes the specific details regarding this offering. If information in this prospectus is inconsistent with documents incorporated by reference in this prospectus filed prior to the date of this prospectus, you should rely on this prospectus. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Goldman Sachs has not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We and Goldman Sachs take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and Goldman Sachs is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this

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offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus captioned “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

We and Goldman Sachs are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” and elsewhere in this prospectus and documents incorporated by reference into this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

This prospectus, including the information incorporated by reference into this prospectus, include trademarks, service marks and trade names owned by us or others. All trademarks, service marks and trade names included or incorporated by reference in this prospectus or any related free writing prospectus are the property of their respective owners.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in this prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

References in this prospectus to "FibroGen," "we," "us" and "our" refer to FibroGen, Inc., a Delaware corporation, and its subsidiaries. Our website address is <http://www.fibrogen.com>. We do not incorporate the information on our website into this prospectus, and you should not consider it part of this prospectus.

FibroGen, Inc.

Overview

We are a leading biopharmaceutical company discovering, developing and commercializing a pipeline of first-in-class therapeutics. We apply our pioneering expertise in hypoxia-inducible factor ("HIF") biology, 2-oxoglutarate enzymology, and connective tissue growth factor ("CTGF") biology to advance innovative medicines for the treatment of anemia, fibrotic disease, and cancer.

We have a pipeline of late-stage clinical programs as well as pre-clinical drug candidates at various stages of development that include both small molecules and biologics. We have leveraged our internally developed 2-oxoglutarate and CTGF biology expertise as well as in-licensing of additional programs, such as antibodies targeting Gal-9 and CCR8, to further enhance our preclinical pipeline. Our key products consist of (1) Roxadustat (HIF-PHI), which is approved in China, Japan, and Europe for treatment of anemia related to chronic kidney disease and (2) Pamrevlumab, an anti-CTGF antibody, that is in Phase 3 studies for idiopathic pulmonary fibrosis, duchenne muscular dystrophy, and locally advanced pancreatic cancer. Our goal is to build a diversified pipeline with novel drugs that will address unmet patient needs in oncology, immunology, and fibrosis.

Risks Associated with our Business

Our business is subject to numerous risks. You should read these risks before you invest in our common stock. In particular, our risks include, but are not limited to, the following:

- We are substantially dependent on the success of our lead products pamrevlumab and roxadustat;
- As a company, we have limited commercialization experience, and the time and resources to develop such experience are significant. If we fail to achieve and sustain commercial success for any of our products, our business would be harmed;
- Drug development and obtaining marketing authorization is a very difficult endeavor and we may ultimately be unable to obtain regulatory approval for our various product candidates in one or more jurisdictions and in one or more indications;
- The complete response letter we received from the FDA for roxadustat has decreased the likelihood of approval and successful commercialization of roxadustat in the U.S. and

potentially other markets. This will decrease and/or delay expected revenue, and may increase the possibility that our Collaboration Agreement with AstraZeneca will be amended or terminated;

- If our collaborations were terminated or if Astellas or AstraZeneca were to prioritize other initiatives over their collaborations with us, our ability to successfully develop and commercialize our product candidates would suffer;
- If our preclinical and clinical trial contractors do not properly perform their agreed upon obligations, we may not be able to obtain or may be delayed in receiving regulatory approvals for our product candidates;
- We currently rely, and expect to continue to rely, on third parties to conduct many aspects of our product manufacturing and distribution, and these third parties may terminate these agreements or not perform satisfactorily;
- We have established operations in China and are seeking approval to commercialize our product candidates outside of the U.S., and a number of risks associated with international operations could materially and adversely affect our business; and
- We are exposed to the risks associated with litigation, investigations, regulatory proceedings, and other legal matters, any of which could have a material adverse effect on us.

Corporate Information

We were incorporated in 1993 in Delaware. Our headquarters are located at 409 Illinois Street, San Francisco, California 94158 and our telephone number is (415) 978-1200. Our website address is www.FibroGen.com. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus.

The Offering

Common stock offered by us	Shares of our common stock having an aggregate offering price of up to \$200,000,000.
Common stock to be outstanding after this offering	Up to 107,516,631 shares (as more fully described in the notes following this table), assuming sales of 13,783,597 shares of our common stock in this offering at an offering price of \$14.51 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on August 5, 2022. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of offering	From time to time by us through or to Goldman Sachs, acting as agent on our behalf or a principal, including through “at-the-market” offerings, as applicable. See “Plan of Distribution.”
Use of Proceeds	We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures. We may also use a portion of the net proceeds and our existing cash, cash equivalents and marketable securities to in-license, acquire, or invest in complementary businesses, technology platforms, products or assets. However, we have no current commitments or obligations to do so. See “Use of Proceeds.”
Risk Factors	You should read the “Risk Factors” section of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors to consider before deciding to purchase shares of our common stock.
Nasdaq Global Select Market Symbol	“FGEN”

The number of our shares of common stock outstanding is based on 93,733,034 shares of common stock outstanding as of June 30, 2022, and excludes the following, all as of June 30, 2022:

- 10,034,051 shares of common stock issuable upon the exercise of outstanding stock options with a weighted-average exercise price of \$29.71 per share;
- 3,894,786 shares of common stock issuable upon the exercise of outstanding restricted stock units; and
- up to an aggregate of 10,697,207 shares of common stock available for future grant under our 2014 Equity Incentive Plan, and up to an aggregate of 5,460,843 shares available for issuance under our Employee Stock Purchase Plan.

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In addition, unless we specifically state otherwise, all information in this prospectus reflects and assumes no exercise of outstanding stock options or vesting of restricted stock units described above.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks and uncertainties described below and discussed under the heading “Risk Factors” contained in our most recent Annual Report on Form 10-K, and in our subsequent Quarterly Report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety, together with other information in this prospectus, the documents incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering. The risks described in these documents are not the only ones we face, but those that we consider to be material. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below titled “Special Note Regarding Forward-Looking Statements.”

Additional Risks Related to This Offering

Management will have broad discretion as to the use of the net proceeds from this offering, and may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of any net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use any net proceeds for corporate purposes that may not improve our financial condition or market value. If our management applies these proceeds in a manner that does not yield a significant return, if any, on our investment of these net proceeds, it could compromise our ability to pursue our growth strategy and adversely affect the market price of our common stock.

You may experience immediate and substantial dilution as a result of this offering.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 13,783,597 shares of our common stock are sold in this offering, based on an assumed sale price of \$14.51 per share, the last sale price of a share of our common stock on the Nasdaq Global Select Market on August 5, 2022, you will experience immediate dilution of \$11.56 per share, representing the difference between the price you pay and our as adjusted net tangible book value per share as of June 30, 2022, after giving effect to this offering, and the assumed public offering price. The exercise of outstanding stock options may result in further dilution of your investment. See the section titled “Dilution” below for a more detailed illustration of the dilution you would incur if you participate in this offering.

The actual number of shares of common stock we will issue under the equity distribution agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the equity distribution agreement and compliance with applicable law, we have the discretion to deliver an issuance notice to Goldman Sachs at any time throughout the term of the equity distribution agreement. The number of shares of common stock that are sold by Goldman Sachs & Co. LLC after delivering an issuance notice will fluctuate based on the market price of the shares of common stock during the sales period and limits we set with Goldman Sachs. Because

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the price per share of each shares of common stock sold will fluctuate based on the market price of our shares of common stock during the sales period, it is not possible at this stage to predict the number of shares of common stock that will be ultimately issued.

You may experience future dilution as a result of future equity offerings.

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering pursuant to the equity distribution agreement. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering pursuant to the equity distribution agreement, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

We do not intend to pay dividends in the foreseeable future.

We have never paid cash dividends on our common stock and currently do not plan to pay any cash dividends in the foreseeable future.

It is not possible to predict the aggregate proceeds resulting from sales made under the equity distribution agreement.

Subject to certain limitations in the equity distribution agreement and compliance with applicable law, we have the discretion to deliver a placement notice to Goldman Sachs at any time throughout the term of the equity distribution agreement. The number of shares that are sold through the sales agents after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, any limits we may set with the sales agents in any applicable placement notice and the demand for our common stock. Because the price per share of each share sold pursuant to the equity distribution agreement will fluctuate over time, it is not currently possible to predict the aggregate proceeds to be raised in connection with sales under the equity distribution agreement.

Sales of common stock offered hereby will be in “at the market offerings,” and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice delivered to the sales agents, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

Future sales or issuances of our common stock in the public markets, or the perception of such sales, could depress the trading price of our common stock.

The sale of a substantial number of shares of our common stock or other equity-related securities in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities.

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We may sell large quantities of our common stock at any time pursuant to this prospectus supplement or in one or more separate offerings. We cannot predict the effect that future sales of common stock or other equity-related securities would have on the market price of our common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss in greater detail many of these risks under the heading “Risk Factors,” and in any free writing prospectuses we may authorize for use in connection with this offering, and in our most recent annual report on Form 10-K and in our most recent quarterly report on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should read this prospectus and any applicable prospectus supplement, together with the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

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

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$200,000,000 from time to time. Because there is no minimum offering amount required pursuant to the equity distribution agreement with Goldman Sachs, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. Actual net proceeds will depend on the number of shares we sell and the prices at which such sales occur. There can be no assurance that we will sell any shares under or fully utilize the equity distribution agreement with Goldman Sachs as a source of financing.

We currently intend to use the net proceeds from the sale of the common stock offered by us hereunder, if any, for working capital and general corporate purposes, including research and development expenses and capital expenditures.

We may also use a portion of the net proceeds and our existing cash, cash equivalents and marketable securities to in-license, acquire, or invest in complementary businesses, technology platforms, products or assets. However, we have no current commitments or obligations to do so.

The amounts and timing of our use of the net proceeds from this offering will depend on a number of factors, such as the timing and progress of our research and development efforts, the timing and progress of any partnering and commercialization efforts, technological advances and the competitive environment for our products. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to us from the sale of the securities offered by us hereunder. Accordingly, our management will have broad discretion in the timing and application of these proceeds. We reserve the right to change the use of these proceeds.

Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

DILUTION

We calculate net tangible book value per share by dividing the net tangible book value, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock. Dilution represents the difference between the portion of the amount per share paid by purchasers of shares in this offering and the as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering. Our net tangible book value as of June 30, 2022, was approximately \$123.7 million, or \$1.32 per share.

After giving effect to the assumed sale of 13,783,597 shares of our common stock pursuant to the equity distribution agreement, at a sale price of \$14.51 per share, the last sale price of our common stock on the Nasdaq Global Select Market on August 5, 2022, our net tangible book value as of June 30, 2022, would have been \$317.3 million, or \$2.95 per share of common stock. This represents an immediate increase in the net tangible book value of \$1.63 per share to our existing stockholders and an immediate dilution in net tangible book value of \$11.56 per share to new investors purchasing shares in this offering. The following table illustrates this per share dilution:

Assumed offering price per share	\$ 14.51
Net tangible book value per share as of June 30, 2022	\$ 1.32
Increase in net tangible book value per share attributable to new investors in offering	\$ 1.63
As adjusted net tangible book value per share as of June 30, 2022, after giving effect to this offering	\$ 2.95
Dilution per share to new investors purchasing shares in this offering	\$ 11.56

The above illustration of dilution per share to investors participating in this offering assumes no exercise of outstanding options to purchase our common stock.

The shares subject to the equity distribution agreement with Goldman Sachs will be sold from time to time at various prices. Changes in the assumed public offering price of \$14.51 per share would not affect our as adjusted net tangible book value after this offering because this offering is currently limited to \$200.0 million. However, each \$0.50 increase (decrease) in the assumed public offering price of \$14.51 per share would increase (decrease) the dilution per share to new investors by approximately \$0.49 per share, assuming that the aggregate dollar amount of shares offered by us, as set forth above, remains at \$200.0 million and after deducting the commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at the time of each offer and sale.

The above discussion and table are based on 93,733,034 shares of common stock outstanding as of June 30, 2022, and excludes the following, all as of June 30, 2022:

- 10,034,051 shares of common stock issuable upon the exercise of outstanding stock options with a weighted-average exercise price of \$29.71 per share;
- 3,894,786 shares of common stock issuable upon the exercise of outstanding restricted stock units; and
- up to an aggregate of 10,697,207 shares of common stock available for future grant under our 2014 Equity Incentive Plan, and up to an aggregate of 5,460,843 shares available for issuance under our Employee Stock Purchase Plan.

To the extent that options outstanding as of June 30, 2022, have been or are exercised, or restricted stock units or performance stock units vest or other shares are issued, investors purchasing

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shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 225,000,000 shares of common stock, \$0.01 par value per share, and 125,000,000 shares of preferred stock, \$0.01 par value per share. A description of material terms and provisions of our certificate of incorporation and bylaws affecting the rights of holders of our capital stock is set forth below. The description is intended as a summary, and is qualified in its entirety by reference to our certificate of incorporation and the bylaws.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders, except as otherwise expressly provided in our amended and restated certificate of incorporation or required by applicable law. We have not provided for cumulative voting for the election of directors in our amended and restated certificate of incorporation.

Economic Rights

Dividends and Distributions. Subject to the prior rights of holders of all classes and series of stock at the time outstanding having prior rights as to dividends, the holders of common stock will be entitled to receive, when, as and if declared by our board of directors, out of any assets legally available therefor, such dividends as may be declared from time to time by our board of directors.

Liquidation Rights. In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, the remaining assets legally available for distribution to stockholders shall be distributed ratably among the holders of common stock and any participating preferred stock outstanding at that time.

Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Our amended and restated certificate of incorporation provides that our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 125,000,000 shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation, which could decrease the market price of our common stock. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law

Certain provisions of Delaware law and our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: acquisition of us by means of a tender offer; acquisition of us by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed “interested stockholders” from engaging in a “business combination” with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an “interested stockholder” is a person who, together with affiliates and associates, owns or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation’s voting stock. Generally, a “business combination” includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Special Stockholder Meetings

Our amended and restated bylaws provide that a special meeting of stockholders may be called at any time by our board of directors or the chairperson of the Board of Directors, our Chief Executive Officer, or the Board of Directors, but such special meetings may not be called by the stockholders or any other person or persons.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and our amended and restated bylaws eliminated the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of our common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation provides for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders. This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for: (1) any derivative action or proceeding brought on behalf of FibroGen; (2) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of FibroGen to FibroGen or FibroGen's stockholders; (3) any action asserting a claim against FibroGen arising pursuant to any provision of the Delaware General Corporation Law, the Certificate of Incorporation or the Bylaws of FibroGen; or (5) any action asserting a claim against FibroGen governed by the internal affairs doctrine. As a result, any action brought by any of our stockholders with regard to any of these matters will need to be filed in the Court of Chancery of the State of Delaware and cannot be filed in any other jurisdiction; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

Although our amended and restated certificate of incorporation contains the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder.

Amendment of Charter Provisions

The amendment of any of the above provisions in our amended and restated certificate of incorporation, except for the provision setting forth the authorized number of shares of our capital stock and making it possible for our board of directors to issue undesignated preferred stock, would require approval by a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock.

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The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitation of Liability and Indemnification Matters

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Each of our amended and restated certificate of incorporation and amended and restated bylaws provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. Its address is 6201 15th Avenue, Brooklyn, New York 11219.

Listing on the Nasdaq Global Select Market

Our common stock is listed on the Nasdaq Global Select Market the symbol "FGEN."

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following summary describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, and does not deal with foreign, state and local consequences that may be relevant to Non-U.S. Holders in light of their particular circumstances, nor does it address U.S. federal tax consequences (such as gift and estate taxes) other than income taxes. Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the Internal Revenue Code of 1986, as amended (the "Code"), such as financial institutions, insurance companies, tax-exempt organizations, broker-dealers and traders in securities, certain former U.S. citizens or long-term residents, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, corporations organized outside of the United States, any state thereof or the District of Columbia that are nonetheless treated as United States income taxpayers for United States federal tax purposes, persons that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security" or integrated investment or other risk reduction strategy, persons who acquire our common stock through the exercise of an option or otherwise as compensation, persons subject to the alternative minimum tax or federal Medicare contribution tax on net investment income, "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds, partnerships and other pass-through entities or arrangements, and investors in such pass-through entities or arrangements. Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them. Furthermore, the discussion below is based upon the provisions of the Code, and Treasury regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be repealed, revoked or modified, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the U.S. Internal Revenue Service ("IRS") with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions. This discussion assumes that the Non-U.S. Holder holds our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment).

Persons considering the purchase of our common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income, estate and other tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign tax consequences.

For the purposes of this discussion, a "Non-U.S. Holder" is, for U.S. federal income tax purposes, a beneficial owner of common stock that is neither a U.S. Holder, nor a partnership (or other entity treated as a partnership for U.S. federal income tax purposes regardless of its place of organization or formation). A "U.S. Holder" means a beneficial owner of our common stock that is for U.S. federal income tax purposes any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity treated as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the U.S., any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

- a trust if it (1) is subject to the primary supervision of a court within the U.S. and one or more U.S. persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

In the case of a holder of our common stock that is classified as a partnership for U.S. federal income tax purposes, the tax treatment of a person treated as a partner in such partnership for U.S. federal income tax purposes generally will depend on the status of the partner, the activities of the partner and the partnership and certain determinations made at the partner level. A person treated as a partner in a partnership or who holds our common stock through another pass-through entity should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other pass-through entity, as applicable.

Distributions

Distributions, if any, made on our common stock to a Non-U.S. Holder to the extent treated as made out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles) generally will constitute dividends for U.S. tax purposes and will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty, subject to the discussions below regarding backup withholding and foreign accounts. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide us with a properly executed IRS Form W-8BEN (in the case of individuals) or IRS Form W-8BEN-E (in the case of entities), or other appropriate form, including a U.S. taxpayer identification number, or in certain circumstances, a foreign tax identifying number, and certifying the Non-U.S. Holder's entitlement to benefits under that treaty. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. In the case of a Non-U.S. Holder that is an entity, Treasury Regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to such agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. If the Non-U.S. Holder is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty and the Non-U.S. Holder does not timely file the required certification, the Non-U.S. Holder may be able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment that such holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to such agent) prior to the payment of such dividends. In general, such effectively connected dividends will be subject to U.S. federal income tax, on a net income basis at the regular rates applicable to U.S. residents. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments. Non-U.S. Holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will first reduce the Non-U.S. Holder's adjusted basis in our common stock,

but not below zero, and then will be treated as gain to the extent of any excess, and taxed in the same manner as gain realized from a sale or other disposition of common stock as described in the next section.

Gain on Disposition of Our Common Stock

Subject to the discussions below regarding backup withholding and foreign accounts, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless (a) the gain is effectively connected with a trade or business of such holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment that such holder maintains in the United States), (b) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met or (c) we are or have been a "United States real property holding corporation" ("USRPHC") within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or such holder's holding period. In general, we would be a USRPHC if interests in U.S. real estate comprise (by fair market value) at least half of our business assets. We believe that we have not been and we are not, and do not anticipate becoming, a USRPHC. Even if we are treated as a USRPHC, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned, directly, indirectly and constructively, no more than five percent of our common stock at all times within the shorter of (i) the five-year period preceding the disposition or (ii) the holder's holding period and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will continue to qualify as regularly traded on an established securities market. If any gain on your disposition is taxable because we are a USRPHC and your ownership of our common stock exceeds five percent, you will be taxed on such disposition generally in the manner applicable to U.S. persons.

A Non-U.S. Holder described in (a) above will be required to pay tax on the net gain derived from the sale at regular U.S. federal income tax rates, and corporate Non-U.S. Holders described in (a) above may be subject to the additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. Gain described in (b) above will be subject to U.S. federal income tax at a flat 30% rate or such lower rate as may be specified by an applicable income tax treaty, which gain may be offset by certain U.S.-source capital losses (even though the Non-U.S. Holder is not considered a resident of the U.S.), provided that the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

Information Reporting Requirements and Backup Withholding

Generally, we must report information to the IRS with respect to any distributions we pay on our common stock (even if the payments are exempt from withholding), including the amount of any such distributions, the name and address of the recipient, and the amount, if any, of tax withheld. A similar report is sent to the holder to whom any such distributions are paid. Pursuant to tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Distributions to a Non-U.S. Holder that are classified as dividends paid by us (or our paying agents) may also be subject to U.S. backup withholding. U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E, or IRS Form W-ECI, or otherwise establishes an exemption. Notwithstanding the foregoing, backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

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U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a disposition of our common stock effected by or through a U.S. office of any broker, U.S. or foreign, except that information reporting and such requirements may be avoided if the holder provides a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E or otherwise meets documentary evidence requirements for establishing non-U.S. person status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the U.S. through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements may, however, apply to a payment of disposition proceeds if the broker has actual knowledge, or reason to know, that the holder is, in fact, a U.S. person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations will generally be treated in a manner similar to U.S. brokers.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be credited against the tax liability of persons subject to backup withholding, provided that the required information is timely furnished to the IRS.

Foreign Accounts

Sections 1471 through 1474 of the Code (commonly referred to as FATCA) impose a U.S. federal withholding tax of 30% on certain payments to a foreign financial institution (as specifically defined by applicable rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FATCA also generally imposes a federal withholding tax of 30% on certain payments to a non-financial foreign entity unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity. An intergovernmental agreement between the United States and an applicable foreign country may modify those requirements. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules. Holders are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

The withholding provisions described above currently apply to payments of dividends. Under proposed Treasury Regulations, the preamble to which states that taxpayers may rely on them until final Treasury Regulations are issued, this withholding tax will not apply to payments of gross proceeds from a sale or other disposition of common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY CHANGE IN APPLICABLE LAW.

PLAN OF DISTRIBUTION

We have entered into an equity distribution agreement with Goldman Sachs & Co. LLC, which we refer to as Goldman Sachs, as our sales agent, under which we may offer and sell from time to time shares of our common stock having an aggregate offering price of up to \$200.0 million. Goldman Sachs may act as agent on our behalf or purchase shares of common stock as principal.

Sales, if any, of shares of common stock under the equity distribution agreement may be made in ordinary brokers' transactions, to or through a market maker, on or through the Nasdaq Global Select Market or any other market venue where the common stock may be traded, in the over-the-counter market, in privately negotiated transactions, or through a combination of any such methods of sale. Goldman Sachs may also sell shares of our common stock by any other method permitted by law.

The common stock may be sold at market prices prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated prices.

We will designate the maximum amount of shares of common stock to be sold through Goldman Sachs on a daily basis or otherwise as we and Goldman Sachs agree and the minimum price per share at which such common stock may be sold. Subject to the terms and conditions of the equity distribution agreement, Goldman Sachs will use its commercially reasonable efforts consistent with its normal sales and trading practices to sell on our behalf all of the designated common stock. We may instruct Goldman Sachs not to sell any shares if the sales cannot be effected at or above the price designated by us in any such instruction. We or Goldman Sachs may suspend the offering of our common stock by notifying the other party. The offering of the shares by Goldman Sachs is subject to receipt and acceptance and subject to Goldman Sachs' right to reject any order in whole or in part.

Goldman Sachs will provide to us written confirmation following the close of trading on the Nasdaq Global Select Market each day on which common stock is sold under the equity distribution agreement. Each confirmation will include the number of shares sold on such day, the gross sales proceeds, and the compensation payable by us to Goldman Sachs. We will report at least quarterly the number of shares sold through Goldman Sachs under the equity distribution agreement, the net proceeds to us (before expenses), and the compensation paid by us to Goldman Sachs in connection with the sales of the common stock.

We will pay Goldman Sachs a commission of up to 3.00% of the gross sales price per share sold through such agent under the equity distribution agreement. We have also agreed to reimburse Goldman Sachs for certain of their expenses in an amount up to \$100,000, in addition to an amount not to exceed \$15,000 per each quarter thereafter. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to Goldman Sachs under the terms of the equity distribution agreement, will be approximately \$417,500.

Settlement of any sales of common stock will occur on the second business day following the date on which such sales were made (or such earlier day as is industry practice for regular-way trading). There is no arrangement for funds to be received in an escrow, trust, or similar arrangement. Sales of our common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and Goldman Sachs may agree.

The offering of our common stock pursuant to the equity distribution agreement will terminate upon the earlier of (i) the sale of all of our common stock subject to the equity distribution agreement or (ii) termination of the equity distribution agreement by us or by Goldman Sachs as provided therein.

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In connection with the sale of common stock on our behalf, Goldman Sachs may be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation paid to Goldman Sachs may be deemed to be underwriting commissions or discounts.

We have agreed to provide indemnification and contribution to Goldman Sachs against certain liabilities, including civil liabilities under the Securities Act.

LEGAL MATTERS

Cooley LLP has passed upon the validity of the shares of our common stock offered hereby. Goldman Sachs & Co. LLC is being represented by Latham & Watkins, LLP in connection with the offering.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to Amendment No. 1 to the Annual Report on Form 10-K for the year ended December 31, 2021, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-36740):

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on February 28, 2022, and Amendment No. 1 thereto on [Form 10-K/A](#) filed with the SEC on March 4, 2022;
- The information incorporated by reference in our Annual Report on Form 10-K for the year ended December 31, 2021 from our proxy statement on [Schedule 14A](#), filed with the SEC on February 28, 2022;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022, filed with the SEC on May 9, 2022;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2022, filed with the SEC on August 8, 2022;

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- our Current Reports on Form 8-K filed with the SEC on [June 8, 2022](#), and [June 17, 2022](#);
- the description of our common stock set forth in our registration statement on [Form 8-A](#), filed with the SEC on November 12, 2014, including any additional amendment or report filed for the purpose of updating such description, including [Exhibit 4.4](#) to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 2, 2020.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, which will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

FibroGen, Inc.
Attn: Investor Relations
409 Illinois Street
San Francisco, California 94158
Telephone number: (415) 978-1200



Up to \$200,000,000

Common Stock

PROSPECTUS

Goldman Sachs & Co. LLC

August 8, 2022

PART II**INFORMATION NOT REQUIRED IN THE PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth an estimate of the fees and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the issuance and distribution of the securities being registered. All the amounts shown are estimates, except for the SEC registration fee.

	<u>Amount</u>	
SEC registration fee	\$	*
The Nasdaq Stock Market listing fee		*
FINRA filing fee		*
Accounting fees and expenses		*
Legal fees and expenses		*
Transfer agent and registrar fees and expenses		*
Printing and miscellaneous fees and expenses		*
Total	\$	*

* These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the Delaware General Corporation Law are sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our amended and restated certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and officers whereby we have agreed to indemnify our directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee or agent of FibroGen, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of FibroGen. At present, there is no pending litigation or proceeding involving a director or officer of FibroGen regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

The underwriting agreement that the registrant might enter into (Exhibit 1.1) may provide for indemnification by any underwriters of the registrant, its directors, its officers who sign the registration statement and its controlling persons for some liabilities, including liabilities arising under the Securities Act of 1933, as amended. The equity distribution agreement that we have entered into (Exhibit 1.2) provides for indemnification by the sales agents of FibroGen, Inc., its directors, its officers who sign the registration statement and FibroGen's controlling persons for some liabilities, including liabilities arising under the Securities Act.

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We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act of 1934, as amended, that might be incurred by any director or officer in his capacity as such.

The indemnification provisions noted above may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities arising under the Securities Act of 1933, as amended.

Item 16. Exhibits

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
1.1*	Form of Underwriting Agreement.					
1.2	Equity Distribution Agreement, dated August 8, 2022, among FibroGen, Inc. and Goldman Sachs & Co. LLC					X
4.1	Amended and Restated Certificate of Incorporation of FibroGen, Inc.	8-K	001-36740	3.1	11/21/2014	
4.2	Amended and Restated Bylaws of FibroGen, Inc.	S-1/A	333-199069	3.4	10/23/2014	
4.3*	Specimen Preferred Stock Certificate and Form of Certificate of Designation of Preferred Stock					
4.4	Form of Debt Indenture	S-3	333-236844	4.5	3/2/2020	
4.5*	Form of Debt Securities					
4.6	Form of Common Stock Warrant Agreement and Warrant Certificate	S-3	333-236844	4.7	3/2/2020	
4.7	Form of Preferred Stock Warrant Agreement and Warrant Certificate	S-3	333-236844	4.8	3/2/2020	
4.8	Form of Debt Securities Warrant Agreement and Warrant Certificate	S-3	333-236844	4.9	3/2/2020	
5.1	Opinion of Cooley LLP					X
23.1	Consent of Independent Registered Public Accounting Firm					X
23.3	Consent of Cooley LLP (See Exhibit 5.1)					X
24.1	Power of Attorney (See signature page)					X
25.1	Statement of Eligibility of Trustee under the Debt Indenture (to be filed separately under the electronic form type 305B2, if applicable)					
107	Filing Fee Table					X

* To be filed by amendment or as an exhibit to a Current Report on Form 8-K and incorporated herein by reference, if applicable.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- Rule 424;
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(7) That, for purposes of determining any liability under the Securities Act, (i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be a part of the registration statement as of the time it was declared effective; and (ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(8) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Francisco, State of California, on August 8, 2022.

FIBROGEN, INC.

By: /s/ Enrique Conterno
Enrique Conterno
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Enrique Conterno and Juan Graham, and each of them, as true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable the FibroGen, Inc. to comply with the provisions of the Securities Act of 1933 and all requirements of the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Enrique Conterno</u> Enrique Conterno	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	August 8, 2022
<u>/s/ Juan Graham</u> Juan Graham	Senior Vice President and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	August 8, 2022
<u>/s/ James A. Schoeneck</u> James A. Schoeneck	Chairman of the Board and Director	August 8, 2022
<u>/s/ Suzanne Blaug</u> Suzanne Blaug	Director	August 8, 2022
<u>/s/ Aoife Brennan</u> Aoife Brennan, M.B., B.Ch.	Director	August 8, 2022
<u>/s/ Benjamin F. Cravatt</u> Benjamin F. Cravatt, Ph.D.	Director	August 8, 2022

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<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jeffrey L. Edwards</u> Jeffrey L. Edwards	Director	August 8, 2022
<u>/s/ Jeffrey W. Henderson</u> Jeffrey Henderson	Director	August 8, 2022
<u>/s/ Maykin Ho, Ph.D</u> Maykin Ho, Ph.D	Director	August 8, 2022
<u>/s/ Gerald Lema</u> Gerald Lema	Director	August 8, 2022

FIBROGEN, INC.
Common Stock (\$0.01 par value)
Having an Aggregate Offering Price of up to
\$200 Million

Equity Distribution Agreement

August 8, 2022

Goldman, Sachs & Co. LLC
200 West Street
New York, New York 10282

Ladies and Gentlemen:

FibroGen, Inc., a Delaware corporation (the “**Company**”) confirms its agreement (this “**Agreement**”) with Goldman, Sachs & Co. LLC (the “**Manager**”) as follows:

1. Description of Shares. The Company proposes to issue and sell through or to the Manager, as sales agent and/or principal, shares of the Company’s common stock, \$0.01 par value (the “**Common Stock**”) having an aggregate offering price of up to \$200 million (the “**Shares**”), from time to time during the term of this Agreement and on the terms set forth in Section 3 of this Agreement. The Company hereby appoints the Manager as the exclusive agent of the Company for the purpose of making offers and sales of the Shares pursuant to this Agreement. The Company agrees that whenever it determines to sell the Shares directly to the Manager as principal, it will enter into a separate agreement (each, a “**Terms Agreement**”) in substantially the form of Annex I hereto, relating to such sale in accordance with Section 3 of this Agreement. Certain terms used herein are defined in Section 19 hereof.

2. Representations and Warranties. The Company represents and warrants to, and agrees with, the Manager at the Execution Time and on each such time the following representations and warranties are repeated or deemed to be made pursuant to this Agreement, as set forth below.

(a) Form S-3. The Company meets the requirements for use of Form S-3 under the Act and has prepared and filed with the Commission an automatic shelf registration statement on Form S-3, including a Base Prospectus and a prospectus related to the Shares, for registration under the Act of the offering and sale of the Shares and other securities of the Company. Such Registration Statement, including any amendments thereto filed prior to any such time this representation is repeated or deemed to be made, automatically became effective on August 8, 2022 and no stop order suspending the effectiveness of the Registration Statement has been issued under the Act and no proceedings for that purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission, and any request on the part of the Commission for additional or supplemental information has been complied with. The Prospectus will contain all information required by the Act and the rules thereunder, and, except to the extent the Manager shall agree in writing to a modification, shall be in all substantive respects in the form furnished to the Manager prior to the Execution Time or prior to any such

time this representation is repeated or deemed to be made. The Registration Statement, at the Execution Time, each such time this representation is repeated or deemed to be made, and at all times during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, meets the requirements set forth in Rule 415(a)(1)(x). The initial Effective Date of the Registration Statement was not earlier than the date three years before the Execution Time. Any reference herein to the Registration Statement, the Base Prospectus, the Prospectus or any Interim Prospectus Supplement shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Exchange Act on or before the Effective Date of the Registration Statement or the issue date of the Base Prospectus, the Prospectus or any Interim Prospectus Supplement, as the case may be and, with respect to times after the Effective Time, shall include such documents filed under the Exchange Act after the Effective Date of the Registration Statement or the issue date of the Base Prospectus, the Prospectus or any Interim Prospectus Supplement, as the case may be, and deemed to be incorporated therein by reference and at or before such times; and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement, the Base Prospectus, the Prospectus or any Interim Prospectus Supplement shall be deemed to refer to and include the filing of any document under the Exchange Act after the Effective Date of the Registration Statement or the issue date of the Base Prospectus, the Prospectus or any Interim Prospectus Supplement, as the case may be, deemed to be incorporated therein by reference. Notwithstanding the foregoing, the representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement or any post-effective amendment or the Prospectus or any amendments or supplements thereto, made in reliance upon and in conformity with information furnished to the Company in writing by the Manager relating to the Manager expressly for use therein.

(b) Successor Registration Statement. To the extent that the Registration Statement is not available for the sales of the Shares as contemplated by this Agreement, the Company shall file a new registration statement with respect to any additional Common Stock necessary to complete such sales of the Shares and shall cause such registration statement to become effective as promptly as practicable. After the effectiveness of any such registration statement, all references to “Registration Statement” included in this Agreement shall be deemed to include such new registration statement, including all documents incorporated by reference therein pursuant to Item 12 of Form S-3, and all references to “Base Prospectus” included in this Agreement shall be deemed to include the final form of prospectus, including all documents incorporated therein by reference, included in any such registration statement at the time such registration statement became effective.

(c) No Material Misstatements or Omissions in the Registration Statement. On each Effective Date, at the Execution Time, at each deemed effective date with respect to the Manager pursuant to Rule 430B(f)(2) under the Act, at each Applicable Time, at each Settlement Date, at each Time of Delivery and at all times during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, the Registration Statement complied and will comply in all material respects with the applicable requirements of the Act and the rules thereunder and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not

misleading; and on the date of any filing pursuant to Rule 424(b), at each Applicable Time, on each Settlement Date, at each Time of Delivery and at all times during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, the Prospectus (together with any supplement thereto) complied and will comply in all material respects with the applicable requirements of the Act and the rules thereunder and did not and will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to the information contained in or omitted from the Registration Statement or the Prospectus (or any supplement thereto) in reliance upon and in conformity with information furnished in writing to the Company by the Manager specifically for inclusion in the Registration Statement or the Prospectus (or any supplement thereto).

(d) Disclosure Package. At the Execution Time, at each Applicable Time, at each Settlement Date and each Time of Delivery, the Disclosure Package does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from the Disclosure Package based upon and in conformity with written information furnished to the Company by the Manager specifically for use therein.

(e) Incorporated Documents. The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus (i) at the time they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the Exchange Act and the rules and regulations of the Commission thereunder and (ii) when read together with the other information in the Prospectus and the Disclosure Package at any Applicable Time and when read together with the other information in the Prospectus at the date of the Prospectus and at any Settlement Date or Time of Delivery, will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) Ineligible Issuer. The Company is not an “ineligible issuer” (as defined in Rule 405 under the Act).

(g) Notice of Other Sales. Prior to the execution of this Agreement, the Company has not, directly or indirectly, offered or sold any Shares by means of any “prospectus” (within the meaning of the Act) or used any “prospectus” (within the meaning of the Act) in connection with the offer or sale of the Shares, and from and after the execution of this Agreement, the Company will not, directly or indirectly, offer or sell any Shares by means of any “prospectus” (within the meaning of the Act) or use any “prospectus” (within the meaning of the Act) in connection with the offer or sale of the Shares, other than the Prospectus, as amended or supplemented from time to time in accordance with the provisions of this Agreement; the Company has not, directly or indirectly, prepared, used or referred to any Issuer Free Writing Prospectus in connection with the offering and sale of the Shares.

(h) No Stop Orders. The Registration Statement is not the subject of a pending proceeding or examination under Section 8(d) or 8(e) of the Act, and the Company is not the subject of a pending proceeding under Section 8A of the Act in connection with the offering of the Shares.

(i) Regulation M. The Common Stock constitutes an “actively-traded security” exempted from the requirements of Rule 101 of Regulation M under the Exchange Act by subsection (c)(1) of such rule.

(j) Sales Agency Agreements. The Company has not entered into any other sales agency agreements or other similar arrangements with any agent or any other representative in respect of any at the market offering (within the meaning of Rule 415(a)(4) under the Act) of the Shares.

(k) Offering Materials. The Company has not distributed and will not distribute, prior to the termination of this Agreement, any offering material in connection with the offering and sale of the Shares other than the Prospectus and any Issuer Free Writing Prospectus reviewed and consented to by the Manager and identified in Schedule I hereto.

(l) No Material Adverse Change in Business. Neither the Company nor any of its subsidiaries has sustained since the date of the latest audited financial statements included or incorporated by reference in the Disclosure Package and the Prospectus any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Disclosure Package and the Prospectus; and, since the respective dates as of which information is given in the Registration Statement, Disclosure Package and the Prospectus, there has not been any material change in the capital stock (other than as a result of (A) the exercise of any stock options outstanding as of the date of this Agreement or warrants outstanding as of the date of this Agreement, (B) the award of stock options in the ordinary course of business pursuant to the Company’s equity incentive plans or (C) the repurchase of shares of stock in connection with any early exercise of stock options by option holders from employees terminating their service to the Company, in each case as such options, warrants and equity incentive plans are described in the Disclosure Package or the Prospectus) or long-term debt of the Company or any of its subsidiaries or any material adverse change, or any development involving a prospective material adverse change, in or affecting the general affairs, management, financial position, stockholders’ equity or results of operations of the Company and its subsidiaries, otherwise than as set forth or contemplated in the Registration Statement, Disclosure Package and the Prospectus.

(m) Title to Property. The Company and its subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them, in each case free and clear of all liens, encumbrances and defects except as described in the Registration Statement, the Disclosure Package and the Prospectus or as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its subsidiaries; and any real property and buildings held under lease by the Company or any of its subsidiaries are held by them under valid, subsisting and enforceable leases or subleases (subject to the effects of (A) bankruptcy, insolvency,

fraudulent conveyance, fraudulent transfer, reorganization, moratorium or other similar laws relating to or affecting the rights or remedies of creditors generally; (B) the application of general principles of equity (including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, regardless of whether enforcement is considered in proceedings at law or in equity); and (C) applicable law and public policy with respect to rights to indemnity and contribution) with such limitations on the Company or its subsidiaries as are not material and do not interfere with the use made and proposed to be made of such real property and buildings by the Company or any of its subsidiaries.

(n) Good Standing. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own its properties and conduct its business as described in the Registration Statement, Disclosure Package and the Prospectus, and has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, or is subject to no material liability or disability by reason of the failure to be so qualified or be in good standing in any such jurisdiction; and each subsidiary of the Company has been duly incorporated or formed and is validly existing as a corporation or other business organization in good standing under the laws of its jurisdiction of incorporation or formation, and has been duly qualified as a foreign corporation or other business organization for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, or is subject to no material liability or disability by reason of the failure to be so qualified or be in good standing in any such jurisdiction.

(o) Capitalization. The Company has an authorized capitalization as set forth in the Registration Statement, the Disclosure Package and the Prospectus and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and conform to the description thereof contained in the Registration Statement, the Disclosure Package and the Prospectus; and all of the issued shares of capital stock and equity interests of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and (except for directors' qualifying shares) are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims.

(p) Due Authorization of the Shares. The Shares have been duly and validly authorized and, when the Shares are issued and delivered against payment therefor as provided herein, such Shares will be duly and validly issued and fully paid and non-assessable and will conform to the description of the Common Stock contained in the Registration Statement, the Disclosure Package and the Prospectus.

(q) No Preemptive or Registration Rights. Except as described in the Registration Statement, the Disclosure Package and the Prospectus, there are no (i) preemptive rights or other rights to subscribe for or to purchase or any restriction upon the voting or transfer of, any equity securities of the Company or any of its subsidiaries or (ii) outstanding options or warrants to purchase any securities of the Company or any of its subsidiaries. Neither the filing of the Registration Statement nor the offering or sale of the Shares as contemplated by this Agreement gives rise to any rights for or relating to the registration of any securities of the Company, except such rights as have been waived or satisfied.

(r) No Conflict or Violation. (i) The issue and sale of the Shares and the compliance by the Company with this Agreement and (ii) the execution, delivery and performance of this Agreement and the consummation of the transactions contemplated herein and in the Registration Statement, the Disclosure Package and the Prospectus (including the issuance and sale of the Shares and the application of the use of the proceeds from the sale of the Shares as described therein under the caption "Use of Proceeds"), in each case, do not and will not, whether with or without the giving of notice or passage of time or both (A) materially conflict with or result in a material breach or violation of any of the terms or provisions of, or constitute a material default under, any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (B) will not conflict with or result in a breach or violation of any of the terms or provisions of the Amended and Restated Certificate of Incorporation or Amended and Restated Bylaws of the Company or the corresponding governing documents of any of its subsidiaries and (C) will not conflict with or result in a breach or violation of any of the terms or provisions of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its subsidiaries or any of their properties; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement, except for the registration under the Act of the Shares, the approval by the Financial Industry Regulatory Authority ("FINRA") of the terms and arrangements and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Manager.

(s) Absence of Violations, Defaults and Conflicts. Neither the Company nor any of its subsidiaries is (i) in violation of its articles of incorporation or bylaws (or similar organizational documents), (ii) in default in the performance or observance of any material obligation, agreement, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound or (iii) in violation or default of any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company, its subsidiaries or any of their properties, as applicable; except in the case of (iii), for such defaults as would not, individually or in the aggregate, have a Material Adverse Effect (as defined below).

(t) Due Authorization. The execution and delivery of, and the performance by the Company of its obligations under, this Agreement (including but not limited to the issuance and sale of the Shares and the use of proceeds from the sale of the Shares as described in the Registration Statement, the Disclosure Package and the Prospectus under the caption "Use of Proceeds") have been duly and validly authorized by all necessary corporate action on the part of the Company and this Agreement has been duly executed and delivered by the Company.

(u) Summaries of Law and Documents. The statements set forth in the Registration Statement, the Disclosure Package and the Prospectus under the captions “Description of Capital Stock”, insofar as they purport to constitute a summary of the terms of the Shares, and under the captions “Business—Roxadustat for the Treatment of Anemia in Chronic Kidney Disease in China”, “Business—Government Regulation”, “Business—Intellectual Property”, “Risk Factors—Risks Related to Our Intellectual Property”, “Risk Factors—Risks Related to Government Regulation” and “Certain Relationships and Related Party Transactions”, insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects.

(v) Filings and Governmental Licenses. The Company and its subsidiaries have filed or caused to be filed with the appropriate governmental entities all forms, statements, reports, and documents (including all exhibits, amendments, and supplements thereto) (each a “**Filing**”) required to be filed by it with respect to the respective businesses of the Company and its subsidiaries and each of their facilities under all applicable laws and the respective rules and regulations thereunder, all of which complied in all respects with all applicable requirements of the appropriate law and rules and regulations thereunder in effect on the date each such Filing was made, except where the failure to do so would not reasonably be expected to have a Material Adverse Effect. The Company and its subsidiaries (i) hold all licenses, registrations, certificates, clearances, approvals, certifications, exemptions, authorizations and permits from governmental authorities (collectively, “**Governmental Licenses**”) which are necessary to the conduct of the business now operated by them, except for such Governmental Licenses the failure of which to hold would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (ii) are in compliance with the terms and conditions of all Governmental Licenses, and all Governmental Licenses are valid and in full force and effect, except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, and (iii) have not received any written notice of proceedings relating to the revocation or modification of any Governmental License.

(w) Payment of Taxes. The Company and each of its subsidiaries has filed all material U.S. federal, state, local and foreign tax returns which have been required to be filed and have paid all taxes indicated by such returns and all assessments received by them or any of them to the extent that such taxes have become due, except for any such taxes being contested in good faith and for which an adequate reserve or accrual has been established in accordance with U.S. generally accepted principles of accounting (“**GAAP**”).

(x) Possession of Intellectual Property. To the knowledge of the Company, the Company and its subsidiaries own or possess licenses to practice and use all material inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets, domain names, technology, know-how and other intellectual property described in the Registration Statement, the Disclosure Package, and the Prospectus as being owned or licensed by them or which are necessary for the conduct of their respective businesses as currently conducted or as currently proposed to be conducted as described in the Registration Statement, the Disclosure Package, and the Prospectus (collectively, “**Intellectual Property**”). To the knowledge of the Company, there are no third parties who have or will be able to establish ownership rights in or to any Intellectual Property owned or purported to be owned by the Company or each of its subsidiaries, or any right to practice or use any Intellectual Property owned or purported to be

owned by or exclusively licensed to the Company or any of its subsidiaries, except for customary reversionary rights of third-party licensors. To the knowledge of the Company, neither the Company nor any of its subsidiaries is infringing, misappropriating, diluting, or otherwise violating, or has infringed, misappropriated, diluted, or otherwise violated, any intellectual property rights of third parties with respect to the Company's development, manufacture, and, if approved, commercialization, of the roxadustat and pamrevlumab products described in the Registration Statement, the Disclosure Package, and the Prospectus in a manner that, in the aggregate, would have a Material Adverse Effect. To the knowledge of the Company, the Company has disclosed to Manager and described in the Registration Statement, the Disclosure Package, and the Prospectus all material information regarding ownership, third-party rights, and any obligations to pay a material royalty on, to grant a license or option to, or to provide other material consideration to any third party with respect to the Intellectual Property. To the knowledge of the Company, all employees, consultants, agents, and contractors engaged in the development of Intellectual Property on behalf of the Company or any of its subsidiaries have executed invention assignment agreements whereby such employees, consultants, agents, and contractors presently assign all of their right, title, and interest in and to such Intellectual Property to the Company, and to the Company's knowledge, no such agreement has been breached or violated. To the Company's knowledge, no employee, consultant, agent, or contractor of the Company or any of its subsidiaries is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer or other third party where the basis of such violation relates to such individual's engagement with the Company or actions undertaken while employed or engaged with the Company in a manner that, individually or in the aggregate, would have a Materially Adverse Effect. There is no pending or, to the Company's knowledge, no threatened action, suit, proceeding, or claim by third parties asserting that the Company or any of its subsidiaries infringes, misappropriates, dilutes, or otherwise violates, or would, upon the manufacturing or commercialization of the roxadustat or pamrevlumab products described in the Registration Statement, the Disclosure Package, and the Prospectus, infringe, misappropriate, dilute, or otherwise violate any intellectual property rights of third parties, and neither the Company nor any of its subsidiaries has received any notice of any claim of infringement, misappropriation, or other violation of, or conflict with, any such rights of third parties. Except as disclosed in the Registration Statement, the Disclosure Package, and the Prospectus, there is no pending or, to the Company's knowledge, no threatened action, suit, proceeding, or claim by others (i) asserting breach of an agreement pursuant to which Intellectual Property was licensed to the Company or to one of its subsidiaries, (ii) challenging the Company's or any of its subsidiaries' rights in or to any Intellectual Property (except in the ordinary course of patent prosecution) or (iii) challenging the validity, enforceability, or scope of any Intellectual Property (except in the ordinary course of patent prosecution) that would have a Material Adverse Effect. There is no pending, or to the knowledge of the Company, no threatened action, suit, proceeding, or claim by the Company or any of its subsidiaries that a third party infringes, misappropriates, or otherwise violates or conflicts with any Intellectual Property owned, purported to be owned, or exclusively licensed to the Company or any of its subsidiaries in a manner that would have a Material Adverse Effect. To the knowledge of the Company, (i) the roxadustat and pamrevlumab products described in the Registration Statement, the Disclosure Package, and the Prospectus as under development and/or commercialization fall within the scope of the claims of one or more patents or patent

applications owned by, or exclusively licensed to, the Company, (ii) no government funding, facilities, or resources belonging to a university, college, other educational institution or research center were used in development of the Intellectual Property, and (iii) no government funding, facilities, or resources belonging to a university, college, or other educational institution or research center has any claim or right in or to any Intellectual Property that is owned or purported to be owned by the Company or any of its subsidiaries

(y) Patents. To the knowledge of the Company, (i) all patents and patent applications included in the Intellectual Property have been duly and properly filed, and each such issued patent is being diligently maintained and each such pending patent application is being diligently prosecuted; (ii) the Company has complied with its duty of candor and disclosure to the U.S. Patent and Trademark Office (the “U.S. PTO”) and to any relevant foreign patent authority having similar requirements in connection with such patents and patent applications included in the Intellectual Property for which it has filing, prosecution, and/or maintenance responsibilities; and (iii) the Company is not aware of any prior art or public or commercial activity or other facts required to be disclosed to the U.S. PTO or any relevant foreign patent authority that was not disclosed and that, if disclosed, would preclude the grant of a patent in connection with any such patent application, and of which failure to disclose would reasonably be expected to form the basis of a finding of invalidity or unenforceability with respect to any patents that have been issued with respect to such patent applications.

(z) Regulatory Compliance. (i) The Company has operated and currently is in compliance in all respects with all Health Care Laws (as defined below) applicable to the ownership, testing, development, manufacture, sales, marketing, promotion, packaging, processing, use, distribution, storage, import, export or disposal of any of the Company’s product candidates or any product manufactured or distributed by the Company; (ii) the Company and its subsidiaries (A) possess, and are in compliance with the terms of, all Governmental Licenses including, without limitation, all Governmental Licenses required by the United States Food and Drug Administration (“FDA”) and/or by any other governmental agencies, which Governmental Licenses are in full force and effect, (B) have not received any notice from any governmental agency relating to the revocation or modification of any Governmental Licenses that, if determined adversely to the Company or its subsidiaries, would reasonably be expected to have a material impact on the Company and (C) are not aware of any other action by any governmental agency to limit, suspend, terminate or revoke any Governmental License held by the Company or any of its subsidiaries; (iii) (A) the studies, tests and preclinical and clinical trials conducted by or on behalf of or sponsored by the Company were, and if still pending are being, conducted in all material respects in accordance with standard medical and scientific research procedures and controls, all Governmental Licenses, and all Health Care Laws (B) none of the studies, tests and preclinical and clinical trials conducted by or on behalf of or sponsored by the Company involved any investigator who has been disqualified as a clinical investigator or has been found by the FDA to have engaged in scientific misconduct, (C) the Company is not aware of any studies, tests or trials the results of which reasonably call into question the clinical trial results described or referred to in the Registration Statement, Disclosure Package and the Prospectus and (D) except as disclosed in the Registration Statement, Disclosure Package and the Prospectus, the Company and its subsidiaries have not received any communication, notice or correspondence from any governmental agencies requiring the termination, material modification or suspension of any studies, tests or preclinical and clinical trials conducted by or on behalf of or sponsored by the

Company; (iv) each description of any studies, tests or preclinical and clinical trials conducted by or on behalf of or sponsored by the Company contained in the Registration Statement, Disclosure Package and the Prospectus is accurate and complete in all material respects and fairly presents the data about and derived from such studies, tests and trials; (v) all testing, manufacturing, packaging, processing, labeling, distribution, marketing, promotion, storage, import, export or disposal of the Company's or its subsidiaries' products by the Company, its subsidiaries or to the Company's knowledge, their suppliers, vendors or partners have been conducted in compliance with all applicable laws, rules and regulations, including applicable Health Care Laws; (vi) neither the Company nor any subsidiary has received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental or regulatory authority or third party alleging that any product, operation, or activity is in violation of any Health Care Laws or Governmental Licenses and the Company has no knowledge that any such governmental or regulatory authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (vii) neither the Company nor any subsidiary has received any FDA Form 483, written notice of adverse finding, warning letter, untitled letter or other correspondence or written notice from any governmental or regulatory authority alleging or asserting noncompliance with any applicable laws or regulations, including the Health Care Laws, or the terms of any Governmental Licenses; (viii) (A) the Company and each subsidiary has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Laws or Governmental Licenses, (B) all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects and not misleading on the date filed (or were corrected or supplemented by a subsequent submission), and (C) the Company is not aware of any reasonable basis for any material liability with respect to such filings; and (D) neither the Company nor its subsidiaries have, and to the knowledge of the Company, the Company's officers, employees and agents have not, made any untrue statement of a material fact or fraudulent statement to any governmental or regulatory authority or failed to disclose a material fact required to be disclosed to any governmental or regulatory authority; (ix) the Company is not a party to and does not have any ongoing reporting obligations pursuant to any corporate integrity agreements, deferred or non-prosecution agreements, monitoring agreements, consent decrees, settlement orders, plans of correction or similar agreements with or imposed by any governmental agency; and (x) neither the Company or any of its subsidiaries or their employees, officers, directors or, to the Company's knowledge, agents, has been excluded, suspended or debarred from participation in any government health care program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in debarment, suspension, or exclusion.

The term "**Health Care Laws**" means Title XVIII of the Social Security Act, 42 U.S.C. §§ 1395-1395hhh (the Medicare statute), Title XIX of the Social Security Act, 42 U.S.C. §§ 1396-1396v (the Medicaid statute) and any other law governing or pertaining to a government healthcare program; the Federal Anti-Kickback Statute, 42 U.S.C. § 1320a-7b(b); the civil False Claims Act, 31 U.S.C. §§ 3729 et seq.; the criminal False Claims Act 42 U.S.C. 1320a-7b(a); any criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286, 287, 1035, 1347, 1349 and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996, 42 U.S.C. §§ 1320d et seq., ("**HIPAA**"); the Civil Monetary Penalties Law, 42 U.S.C. §§ 1320a-7a; the Physician Payments Sunshine Act,

42 U.S.C. § 1320a-7h; the Exclusions Law, 42 U.S.C. § 1320a-7; HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, 42 U.S.C. §§ 17921 et seq., and the regulations promulgated thereunder (“**HITECH**”); the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§ 301 et seq.; the Public Health Service Act, 42 U.S.C. §§ 201 et seq.; the regulations promulgated pursuant to such laws; and any similar federal, state, local and foreign laws and regulations, in each case as amended.

(aa) **Privacy Laws**. The Company and its subsidiaries are, and at all prior times were, in material compliance with all applicable data privacy and security laws and regulations, including without limitation, as applicable, the General Data Protection Regulation 2016/679 (the “**GDPR**”), the UK Data Protection Act 2018 (“**DPA**”), the UK General Data Protection Regulation as defined by the DPA as amended by the Data Protection, Privacy and Electronic Communications (Amendments etc.) (EU Exit) Regulations 2019 (together with the DPA, the “**UK GDPR**”), and HIPAA, as amended by HITECH (collectively, “**Privacy Laws**”). To ensure compliance with the Privacy Laws, and contractual obligations, industry standards, and any other legal obligations related to data privacy and security, the Company and its subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data (the “**Policies**”) as applicable. “**Personal Data**” means all personal, personally identifiable, sensitive, confidential or regulated data. The Company and its subsidiaries since inception have at all times made all disclosures to users or customers required by applicable Privacy Laws, and has provided accurate notice of its Policies then in effect to its customers, employees, third party vendors and representatives as required by applicable Privacy Laws, except where the failure to do so would not, individually or in the aggregate, have a Material Adverse Effect. None of such disclosures made or contained in any of the Policies have been inaccurate, misleading, deceptive or in violation of any Privacy Laws or Policies in any material respect. The Company further certifies that, neither it nor any subsidiary: (i) has received written notice of any actual or potential liability under or relating to, or actual or potential material violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law. The execution, delivery and performance of this Agreement or any other agreement referred to in this Agreement will not result in a breach of violation of any Privacy Laws or Policies.

(bb) **IT Systems**. Except as would not have a Material Adverse Effect, the Company’s and its subsidiaries’ information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, “**IT Systems**”) are: (i) adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted; and (ii) free and clear of all bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained appropriate controls, policies, procedures, and safeguards designed to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all Personal Data) used in connection with their businesses, reasonably consistent with industry standards and practices, or as required by applicable regulatory

standard; and there have been no breaches, violations, outages or unauthorized uses of or accesses to the IT Systems and data (including all Personal Data) except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and its subsidiaries have complied with and are presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, and all industry guidelines, standards, policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification. Neither the Company nor its subsidiaries has been notified of, and each of them has no knowledge of any event or condition that could result in, any security breach or incident, unauthorized access or disclosure or other compromise to its IT Systems and Personal Data except, in each case, for any such matter as would not reasonably be expected to have a Material Adverse Effect. The Company and its subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practice.

(cc) Statistical and Market-Related Data. Any statistical, industry-related and market-related data included in the Registration Statement, Disclosure Package and the Prospectus are based on or derived from sources that the Company believes, after reasonable inquiry, to be reliable and accurate and, to the extent required, the Company has obtained the written consent to the use of such data from such sources;

(dd) Compliance with ERISA. Except, in each case, for any such matter as would not reasonably be expected to have a Material Adverse Effect, (i) each “employee benefit plan” (within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder (“**ERISA**”)) for which the Company or any member of its “**Controlled Group**” (defined as any organization that is a member of a controlled group of corporations within the meaning of Section 414 of the Internal Revenue Code of 1986, as amended (the “**Code**”)) would have liability (each a “**Plan**”) is in compliance in all material respects with all applicable statutes, rules and regulations, including ERISA and the Code; (ii) with respect to each Plan subject to Title IV of ERISA (A) no “reportable event” (as defined in Section 4043 of ERISA) has occurred for which the Company or any member of its Controlled Group would have any material liability; and (B) neither the Company nor any member of its Controlled Group has incurred or expects to incur material liability under Title IV of ERISA (other than for contributions to the Plan or premiums payable to the Pension Benefit Guaranty Corporation, in each case in the ordinary course and without default); (iii) no Plan which is subject to Section 412 of the Code or Section 302 of ERISA has failed to satisfy the minimum funding standard within the meaning of such sections of the Code or ERISA; and (iv) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(ee) Environmental Laws. Except in each case as otherwise disclosed in the Registration Statement, the Disclosure Package and the Prospectus and except in each case as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect: (i) the Company and its subsidiaries have complied with all applicable federal, state, local, foreign and international laws (including the common law), statutes, rules, regulations, orders, judgments, decrees or other legally binding requirements of any court, administrative agency or

other governmental authority relating to pollution or to the protection of the environment, natural resources or human health or safety, or to the manufacture, use, generation, treatment, storage, disposal, release or threatened release of hazardous or toxic substances, pollutants, contaminants or wastes, or the arrangement for such activities (“**Environmental Laws**”); (ii) the Company and its subsidiaries have obtained and complied with all permits, licenses, authorizations or other approvals required of them under Environmental Laws to conduct their respective businesses and are not subject to any action to revoke, terminate, cancel, limit or appeal any such permits, licenses, authorizations or approvals; and (iii) none of the Company or any of its subsidiaries has received written notice of or is otherwise subject to any pending or threatened claim, or has any cost or liability under Environmental Laws in respect of its past or present business, operations (including the disposal of hazardous substances at any off-site location), facilities or real property (whether owned, leased or operated) or on account of any predecessor or any person whose liability under any Environmental Laws it has agreed to assume; and the Company is not aware of any facts or conditions that could reasonably be expected to give rise to any such claim, cost or liability. Except in each case as otherwise disclosed in the Registration Statement, the Disclosure Package and the Prospectus, none of the Company or any of its subsidiaries is aware of any facts or issues relating to compliance with Environmental Laws that would reasonably be expected to have a material effect on their capital expenditures, earnings or competitive position or is a party to any judicial or administrative proceeding (including a notice of violation) under any Environmental Laws to which a governmental authority is also a party and which involves potential monetary sanctions, unless it could reasonably be expected that such proceeding will result in monetary sanctions of less than \$300,000, or which is otherwise material, and no such proceeding has, to the Company’s knowledge, been threatened in writing or is known by the Company to be contemplated.

(ff) Restrictions on Dividends. Except as disclosed in the Registration Statement, the Disclosure Package and the Prospectus, no subsidiary of the Company is prohibited or restricted, directly or indirectly, from paying dividends to the Company or any other subsidiary of the Company, or from making any other distribution with respect to such subsidiary’s equity securities or from repaying to the Company or any other subsidiary of the Company any amounts that may from time to time become due under any loans or advances to such subsidiary from the Company or any other subsidiary of the Company or from transferring any property or assets to the Company or to any other subsidiary of the Company.

(gg) Nasdaq Listing. The Company’s Common Stock has been registered pursuant to Section 12(b) of the Exchange Act, its outstanding shares of Common Stock have been listed, and an Listing of Additional Shares for the Shares has been submitted to, The Nasdaq Stock Market LLC (“**Nasdaq**”), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or the listing of the Common Stock (including the Shares) on Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing.

(hh) Certain Relationships and Related Party Transactions. There are no material related-party transactions involving the Company or its subsidiaries or any other person required to be described in the Registration Statement, the Disclosure Package and the Prospectus which have not been described in such documents as required.

(ii) Absence of Labor Dispute. No material labor disturbance by or material dispute with employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is threatened.

(jj) No Finder's Fee. None of the Company or any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Company or any of its subsidiaries or the Manager for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares.

(kk) Absence of Proceedings. Other than as set forth in the Registration Statement, the Disclosure Package and the Prospectus, there are no legal or governmental proceedings pending to which the Company or any of its subsidiaries or, to the Company's knowledge, any officer or director of the Company is a party or of which any property or assets of the Company or any of its subsidiaries or, to the Company's knowledge, any officer or director of the Company is the subject which would individually or in the aggregate reasonably be expected to have a material adverse effect on the current or future financial position, stockholders' equity or results of operations of the Company and its subsidiaries, taken as a whole (a "**Material Adverse Effect**"); and, to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(ll) Transfer Taxes. There are no transfer taxes or other similar fees or charges under U.S. federal law or the laws of any state, or any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance or sale by the Company of the Shares.

(mm) Investment Company Act. The Company is not and, upon the issuance and sale of the Shares and the application of the proceeds thereof as described in the Registration Statement, the Disclosure Package and the Prospectus under the caption "Use of Proceeds," will not be required to be registered as, an "investment company", as such term is defined in the Investment Company Act of 1940, as amended.

(nn) Financial Statements; Non-GAAP Financial Measures. The financial statements, together with related notes and schedules, included in the Registration Statement, the Disclosure Package and the Prospectus, comply in all material respects with the applicable requirements of the Act and present fairly in all material respects the financial position and the results of operations and cash flows of the entities purported to be shown thereby, at the indicated dates and for the indicated periods. Such financial statements and related schedules have been prepared in accordance with GAAP, consistently applied throughout the periods involved, except as disclosed therein, and all adjustments necessary for a fair presentation of results for such periods have been made. The pro forma financial statements, if any, or data included in the Registration Statement or the Prospectus, if any, comply with the applicable requirements of the Act and the Exchange Act, and the assumptions used in the preparation of such pro forma financial statements and data are reasonable, the pro forma adjustments used therein are appropriate to give effect to the transactions or circumstances described therein and the pro forma adjustments have been properly applied to the historical amounts in the compilation of those statements and data; the other financial and statistical data set forth in the Registration Statement, the Disclosure Package or the

Prospectus are accurately and fairly presented and prepared on a basis consistent with the financial statements and books and records of the Company. Any non-GAAP financial measure (as such term is defined by the rules and regulations of the Commission), contained in the Registration Statement, the Disclosure Package and the Prospectus has been derived from the accounting records of the Company or its predecessors for accounting purposes, fairly presents in all material respect the information purported to be shown thereby and complies in all material respects with Regulation G of the Exchange Act, and Item 10(e) of Regulation S-K under the Act, to the extent applicable. The Company and its subsidiaries do not have any material liabilities or obligations, direct or contingent, not disclosed in Registration Statement, the Disclosure Package and the Prospectus. There are no financial statements (historical or pro forma) that are required to be included in the Registration Statement, the Disclosure Package or the Prospectus that are not included as required.

(oo) Independent Accountants. The accountants who certified the financial statements and supporting schedules included in the Registration Statement, the Disclosure Package and the Prospectus are independent public accountants as required by the Act, the Exchange Act and the Public Company Accounting Oversight Board.

(pp) Compliance with the Sarbanes-Oxley Act. There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any applicable provision of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(qq) Accounting Controls. The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that complies with the requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. The Company is not aware of any material weaknesses in its internal control over financial reporting. Since the date of the latest audited financial statements included or incorporated by reference in the Disclosure Package, Registration Statement and the Prospectus, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(rr) Disclosure Controls. The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company and its subsidiaries is made known to the Company's principal executive officer and principal financial officer by others within those entities; and such disclosure controls and procedures are effective.

(ss) Foreign Corrupt Practices Act. None of the Company, any of its subsidiaries or, to the knowledge of the Company, any director, officer, employee, agent, affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries has (A) used any funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government or regulatory official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (C) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom, or any other applicable anti-bribery or anti-corruption laws; or (D) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have instituted, and maintain and enforce, policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

(tt) Money Laundering Laws. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental or regulatory agency (collectively, the “**Anti-Money Laundering Laws**”) and no action, suit or proceeding by or before any court or governmental or regulatory agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(uu) OFAC. None of the Company, any of its subsidiaries or, to the knowledge of the Company, any director, officer, employee, agent or affiliate of the Company is currently the subject or the target of any sanctions administered or enforced by the U.S. Government, including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury (“**OFAC**”), or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”, the United Nations Security Council (“**UNSC**”), the European Union, Her Majesty’s Treasury (“**HMT**”), or other relevant sanctions authority (collectively, “**Sanctions**”), nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or the target of Sanctions (each, a “**Sanctioned Country**”); and the Company will not directly or indirectly use the proceeds of the offering of the Shares hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or the target of Sanctions, (ii) to fund or facilitate any activities of or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as sales agent, underwriter, advisor, investor or otherwise) of Sanctions. For the past five years, none of the Company or any of its subsidiaries has knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(vv) Insurance. Each of the Company and its subsidiaries carry, or are covered by, insurance, from financially sound and reputable insurers, in such amounts and covering such risks as are generally deemed reasonably adequate for the conduct of their respective businesses and the value of their respective properties and as is generally deemed adequate and customary for companies engaged in similar businesses; and the Company has no reason to believe that it or any of its subsidiaries will not be able to renew their existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue their respective businesses at a cost that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ww) Ownership Structure. (i) the ownership structure (the “**Ownership Structure**”) set forth in Annex II of this Agreement complies with all applicable laws, rules and regulations, including those of the People’s Republic of China (the “**PRC**”), Hong Kong, the Cayman Islands and the United States, does not violate, breach, contravene or otherwise conflict with any applicable laws, rules and regulations and has not been challenged by any governmental agency; (ii) there are no legal, arbitral, governmental or other proceedings (including, without limitation, governmental investigations or inquiries) pending before or threatened or contemplated by any governmental agency in respect of such Ownership Structure; (iii) all consents, approvals, authorizations, orders, registrations, clearances or qualifications of or with any governmental agency (“**Governmental Authorizations**”) in connection with the Ownership Structure have been duly granted, made or unconditionally obtained in writing and are in full force and effect and no such Governmental Authorization has been withdrawn or revoked or is subject to any condition precedent which has not been fulfilled or performed; (iv) in connection with the transactions contemplated by this Agreement, the Ownership Structure will comply with all applicable laws, rules and regulations; (v) all of the Company’s subsidiaries incorporated or formed in the PRC and Hong Kong have taken all reasonable steps to comply with any applicable rules and regulations of the PRC State Administration of Foreign Exchange (the “**SAFE Rules and Regulations**”), including, without limitation, requesting each shareholder and option holder that is, or is directly or indirectly owned or controlled by, a PRC resident or citizen to complete any registration and other procedures required under the SAFE Rules and Regulations; and (vi) (A) dividends and other distributions declared with respect to after-tax retained earnings on the share capital of any subsidiary of the Company that is or will be incorporated in the PRC will be permitted under the current laws and regulations of the PRC to be freely transferred out of the PRC and may be paid in U.S. dollars, subject to the successful completion of PRC formalities required for such remittance, and all such dividends and other distributions will not be subject to withholding or other taxes under the laws and regulations of the PRC and are otherwise free and clear of any other tax, withholding or deduction in the PRC, and without the necessity of obtaining any Governmental Authorizations; (B) dividends and other distributions declared and payable on the share capital of any subsidiary of the Company that is or will be incorporated in Hong Kong will be permitted under the current laws and regulations of Hong Kong and the PRC to be paid to the Company, and all such dividends and other distributions will not be subject to withholding or other taxes under the laws and regulations of Hong Kong and the PRC and are otherwise free and clear of any other tax, withholding or deduction in Hong Kong and the PRC and without the necessity of obtaining any Governmental Authorizations of or with any governmental agency in Hong Kong

or the PRC and (C) dividends and other distributions declared and payable on the share capital of any subsidiary of the Company that is or will be incorporated in the Cayman Islands will be permitted under the current laws and regulations of the Cayman Islands to be paid to the Company, and all such dividends and other distributions will not be subject to withholding or other taxes under the laws and regulations of the Cayman Islands and are otherwise free and clear of any other tax, withholding or deduction in the Cayman Islands and without the necessity of obtaining any Governmental Authorizations of or with any governmental agency in the Cayman Islands;

(xx) Stabilization. Neither the Company nor, to the Company's knowledge, any of its affiliates, has taken or may take, directly or indirectly, any action designed to cause or result in, or which has constituted or which might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares in violation of Regulation M of the Exchange Act.

(yy) FINRA Affiliation. To the knowledge of the Company, there are no affiliations or associations between any member of FINRA and any of the officers or directors of the Company or the holders of 5% or greater of the Common Stock, except as described in the Registration Statement, the Disclosure Package and the Prospectus to the extent required to be so described.

(zz) Accuracy of Exhibits. There are no contracts or other documents that are required by the Act to be described in the Prospectus or filed as exhibits to the Registration Statement, or that are required by the Exchange Act to be filed as exhibits to a document incorporated by reference into the Prospectus, that have not been so described in the Prospectus or filed as exhibits to the Registration Statement or such incorporated document.

(aaa) XBRL. The interactive data in the eXtensible Business Reporting Language included as an exhibit to the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(bbb) WKSI. (i) At the original effectiveness of the Registration Statement, (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Act (whether such amendment was by post-effective amendment or incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or in the form of a prospectus), (iii) at the time the Company or any person acting on its behalf (within the meaning, for this clause only, of Rule 163(c)) made any offer relating to the Shares in reliance on the exemption of Rule 163, and (iv) as of the Applicable Time, the Company was and is a "well-known seasoned issuer" (as defined in Rule 405 of the Act).

Any certificate signed by any officer of the Company or any of its subsidiaries and delivered to the Manager or to counsel for the Manager in connection with this Agreement or any Terms Agreement shall be deemed a representation and warranty by the Company or such subsidiary of the Company, as applicable, to the Manager as to the matters set forth therein.

The Company acknowledges that the Manager and, for purposes of the opinions to be delivered pursuant to Section 4 hereof, counsel for the Company and counsel for the Manager, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

3. **Sale and Delivery of Shares.** On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company and the Manager agree that the Company may from time to time seek to sell Shares through the Manager, acting as sales agent, or directly to the Manager acting as principal, as follows:

(a) The Company may submit to the Manager its orders (including any price, time or size limits or other customary parameters or conditions) to sell Shares on any Trading Day (as defined herein) in a form and manner as mutually agreed to by the Company and the Manager. As used herein, “**Trading Day**” shall mean any trading day on Nasdaq.

(b) Subject to the terms and conditions hereof, the Manager shall use its reasonable efforts to execute any Company order submitted to it hereunder to sell Shares and with respect to which the Manager has agreed to act as sales agent. The Company acknowledges and agrees that (i) there can be no assurance that the Manager will be successful in selling the Shares, (ii) the Manager will incur no liability or obligation to the Company or any other person or entity if it does not sell Shares for any reason other than a failure by the Manager to use its reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Shares as required under this Agreement and (iii) the Manager shall not be under any obligation to purchase Shares on a principal basis pursuant to this Agreement, except as otherwise specifically agreed by Manager and the Company. The Manager may make sales pursuant to each order by any method permitted by law, including without limitation (i) by means of ordinary brokers’ transactions (whether or not solicited), (ii) to or through a market maker, (iii) directly on or through any national securities exchange or facility thereof, a trading facility of a national securities association, an alternative trading system, or any other market venue, (iv) in the over-the-counter market, (v) in privately negotiated transactions, or (vi) through a combination of any such methods.

(c) The Company shall not authorize the issuance and sale of, and the Manager shall not sell as sales agent, any Share at a price lower than the minimum price therefor designated from time to time by the Company and notified to the Manager in writing. In addition, the Company or the Manager may upon notice to the other party hereto by telephone (confirmed promptly by email or facsimile), suspend an offering of the Shares with respect to which the Manager is acting as sales agent; *provided, however*, that such suspension or termination shall not affect or impair the parties’ respective obligations with respect to the Shares sold hereunder prior to the giving of such notice.

(d) The compensation to the Manager for sales of the Shares with respect to which the Manager acts as sales agent hereunder shall be up to 3% of the gross offering proceeds of the Shares sold pursuant to this Agreement as mutually agreed to in writing by the Manager and the Company. The foregoing rate of compensation shall not apply when the Manager, acting as principal, purchases Shares from the Company pursuant to a Terms Agreement. Any compensation or commission due and payable to the Manager hereunder with respect to any sale of Shares shall be paid by the Company to the Manager concurrently with the settlement for sales of the Shares by deduction from the proceeds from sales of the Shares payable to the Company. The remaining proceeds, after further deduction for any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales shall constitute the net proceeds to the Company for such Shares (the “**Net Proceeds**”).

(e) Settlement for sales of the Shares pursuant to this Agreement will occur on the second Trading Day following the date on which such sales are made (each such day, a “**Settlement Date**”). On each Settlement Date, the Shares sold through the Manager for settlement on such date shall be issued and delivered by the Company to the Manager against payment of the Net Proceeds from the sale of such Shares. Settlement for all such Shares shall be effected by free delivery of the Shares, in definitive form, by the Company or its transfer agent to the Manager’s or its designee’s account (*provided* the Manager shall have given the Company written notice of such designee prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto, in return for payments in same day funds delivered to the account designated by the Company. If the Company, or its transfer agent (if applicable) shall default on its obligation to deliver the Shares on any Settlement Date, the Company shall (i) hold the Manager harmless against any loss, claim, damage, or expense (including reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company and (ii) pay the Manager any commission, discount or other compensation to which it would otherwise be entitled absent such default.

(f) If acting as sales agent hereunder, the Manager shall provide written confirmation (which may be by facsimile or email) to the Company following the close of trading on the Nasdaq each day in which the Shares are sold under this Agreement setting forth (i) the amount of the Shares sold on such day and the gross offering proceeds received from such sale and (ii) the commission payable by the Company to the Manager with respect to such sales.

(g) At each Applicable Time, Settlement Date, Representation Date (as defined in Section 4(k)) and Filing Date (as defined in Section 4(q)), the Company shall be deemed to have affirmed each representation and warranty contained in this Agreement as if such representation and warranty were made as of such date, modified as necessary to relate to the Registration Statement and the Prospectus as amended as of such date. Any obligation of the Manager to use its reasonable efforts to sell the Shares on behalf of the Company as sales agent shall be subject to the continuing accuracy of the representations and warranties of the Company herein (and the completion of any diligence to verify such accuracy by the Manager), to the performance by the Company of its obligations hereunder and to the continuing satisfaction of the additional conditions specified in Section 6 of this Agreement.

(h) Subject to such further limitations on offers and sales of Shares or delivery of instructions to offer and sell Shares as are set forth herein and as may be mutually agreed upon by the Company and the Manager, the Company shall not request the sale of any Shares that would be sold, and the Manager shall not be obligated to sell, (i) during any period in which the Company’s insider trading policy, as it exists on the date of this Agreement, would prohibit the purchase or sale of any Shares by any of its officers or directors, (ii) any time during the period commencing on the tenth business day prior to the time Company shall issue a press release containing, or shall otherwise publicly announce, its earnings, revenues or other results of operations (each, an “**Earnings Announcement**”) through and including the time that is 24 hours

after the time that the Company files (a “**Filing Time**”) a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K that includes consolidated financial statements as of and for the same period or periods, as the case may be, covered by such Earnings Announcement, or (iii) during any other period in which the Company is, or could be deemed to be, in possession of material non-public information.

(i) If the Company wishes to issue and sell the Shares pursuant to this Agreement directly to the Manager acting as principal (each, a “**Placement**”), it will notify the Manager of the proposed terms of such Placement. If the Manager, acting as principal, wishes to accept such proposed terms (which the Manager may decline to do for any reason in its sole discretion) or, wishes to accept amended terms proposed by the Company after further discussion, the Manager and the Company will enter into a Terms Agreement setting forth the terms of such Placement. The terms set forth in a Terms Agreement will not be binding on the Company or the Manager unless and until the Company and the Manager have each executed such Terms Agreement accepting all of the terms of such Terms Agreement. In the event of a conflict between the terms of this Agreement and the terms of a Terms Agreement, the terms of such Terms Agreement will control.

(j) Each Placement shall be made in accordance with the terms of this Agreement and, if applicable, a Terms Agreement, which will provide for the sale of such Shares to, and the purchase thereof by, the Manager. A Terms Agreement may also specify certain provisions relating to the reoffering of such Shares by the Manager. The commitment of the Manager to purchase the Shares pursuant to any Terms Agreement shall be deemed to have been made on the basis of the representations and warranties of the Company herein contained and shall be subject to the terms and conditions herein set forth. Each Terms Agreement shall specify the number of the Shares to be purchased by the Manager pursuant thereto, the price to be paid to the Company for such Shares, any provisions relating to rights of, and default by, underwriters acting together with the Manager in the reoffering of the Shares, and the time and date (each such time and date being referred to herein as a “**Time of Delivery**”) and place of delivery of and payment for such Shares.

(k) Under no circumstances shall the number and aggregate amount of the Shares sold pursuant to this Agreement and any Terms Agreement exceed (i) the aggregate amount set forth in Section 1, (ii) the number of shares of the Common Stock available for issuance under the currently effective Registration Statement or (iii) the number and aggregate amount of the Shares authorized from time to time to be issued and sold under this Agreement by the board of directors of the Company (the “**Board**”), or a duly authorized committee thereof, and notified to the Manager in writing.

4. Agreements. The Company agrees with the Manager that:

(a) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Act in connection with the offering or sale of the Shares, the Company will not file any amendment of the Registration Statement or supplement in connection with the offering and sale of the Shares (including the Prospectus or any Interim Prospectus Supplement) to the Base Prospectus, the Disclosure Package or the Prospectus, whether

pursuant to the Act, the Exchange Act or otherwise, unless (i) the Company has furnished to the Manager a copy of such amendment or supplement (including, for the avoidance of doubt, reports or other information to be filed by the Company under the Exchange Act that would be incorporated by reference into the Registration Statement and the Prospectus) for its review a reasonable period of time prior to filing (or, in the case of Current Reports on Form 8-K, has used its commercially reasonable efforts to so furnish copies to the Manager prior to filing), and (ii) except for reports or other information required to be filed by the Company under the Exchange Act, the Company will not file any such proposed amendment or supplement to which the Manager reasonably objects. The Company has prepared the Prospectus, in a form approved by the Manager, and shall file such Prospectus, as amended at the Execution Time, with the Commission pursuant to the applicable paragraph of Rule 424(b) promptly after the Execution Time (but in any event within the time period described thereby) and will cause any supplement to the Prospectus to be prepared, in a form approved by the Manager, and will file such supplement with the Commission pursuant to the applicable paragraph of Rule 424(b) within the time period prescribed thereby and will notify the Manager of such timely filing. The Company, subject to this Section 4(a) and Section 4(c), will comply with the requirements of Rule 430B. During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Act in connection with the offering or sale of the Shares, the Company will promptly advise the Manager (A) when the Prospectus, and any supplement thereto, shall have been filed (if required) with the Commission pursuant to Rule 424(b), (B) when, during any period when the delivery of a prospectus (whether physically or through compliance with Rule 172 or any similar rule) is required under the Act in connection with the offering or sale of the Shares, any amendment to the Registration Statement or any new registration statement relating to the Shares shall have been filed or become effective (other than a prospectus supplement relating solely to the offering of securities other than the Shares), (C) of the receipt of any comments from the Commission, (D) of any request by the Commission or its staff for any amendment of the Registration Statement, or for any supplement to the Prospectus or for any additional information related to the Registration Statement or the Prospectus, (E) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any notice objecting to its use or any the issuance of any order preventing or suspending the use of the Prospectus or any amendment or supplement thereto, or the institution or threatening of any proceeding for any of such purposes or pursuant to Section 8A of the Act or (F) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for sale in any jurisdiction or the institution or threatening of any proceeding for such purpose. The Company will use its reasonable best efforts to prevent the issuance of any such stop order or the occurrence of any such suspension or objection to the use of the Registration Statement and, upon such issuance, occurrence or notice of objection, to obtain at the earliest possible moment the withdrawal of such stop order or relief from such occurrence or objection, including, if necessary, by filing an amendment to the Registration Statement or a new registration statement and using its reasonable best efforts to have such amendment or new registration statement declared effective as soon as practicable.

(b) If, at any time on or after an Applicable Time but prior to the related Settlement Date or Time of Delivery, any event occurs as a result of which the Disclosure Package would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made or the circumstances then prevailing not misleading, the Company will (i) notify promptly the Manager so that any use of the Disclosure Package may cease until it is amended or supplemented; (ii) amend or supplement the Disclosure Package to correct such statement or omission; and (iii) supply any amendment or supplement to the Manager in such quantities as the Manager may reasonably request.

(c) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Act, if any event occurs as a result of which the Prospectus as then supplemented would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made at such time not misleading, or if it shall be necessary to amend the Registration Statement, file a new registration statement or supplement the Prospectus to comply with the Act or the Exchange Act or the respective rules thereunder, including in connection with use or delivery of the Prospectus, the Company promptly will (i) notify the Manager of any such event, (ii) prepare and file with the Commission, subject to the first sentence of paragraph (a) of this Section 4, an amendment or supplement or new registration statement which will correct such statement or omission or effect such compliance, (iii) use its reasonable best efforts to have any amendment to the Registration Statement or new registration statement declared effective as soon as practicable in order to avoid any disruption in use of the Prospectus and (iv) supply any supplemented Prospectus to the Manager in such quantities as the Manager may reasonably request.

(d) As soon as practicable, the Company will make generally available to its security holders and to the Manager an earnings statement or statements of the Company and its subsidiaries which will satisfy the provisions of Section 11(a) of the Act and Rule 158.

(e) The Company will deliver to the Manager and counsel for the Manager, without charge, as the Manager or counsel for the Manager may reasonably request, signed copies of the Registration Statement as originally filed and of each amendment thereto (including exhibits filed therewith or incorporated by reference therein and documents incorporated or deemed to be incorporated by reference therein) and signed copies of all consents and certificates of experts. The Registration Statement and each amendment thereto furnished to the Manager will be identical to any electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. The Company will pay the expenses of printing or other production of all documents relating to the offering.

(f) The Company will deliver to the Manager and counsel for the Manager, without charge, for so long as delivery of a prospectus by the Manager or dealer may be required by the Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule), as many copies of the Prospectus and each Issuer Free Writing Prospectus and any supplement thereto as the Manager may reasonably request. The Prospectus and any Issuer Free Writing Prospectus and any amendments or supplements thereto furnished to the Manager will be identical to any electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. The Company will pay the expenses of printing or other production of all documents relating to the offering.

(g) The Company will arrange, if necessary, for the qualification of the Shares for sale under the laws of such jurisdictions as the Manager may designate and will maintain such qualifications in effect so long as required for the distribution of the Shares; *provided* that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action that would subject it to service of process in suits, other than those arising out of the offering or sale of the Shares, in any jurisdiction where it is not now so subject or where it would be subject to taxation as a foreign business.

(h) The Company agrees that, unless it has or shall have obtained the prior written consent of the Manager, and the Manager agrees with the Company that, unless it has or shall have obtained the prior written consent of the Company, as the case may be, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus” (as defined in Rule 405) required to be filed by the Company with the Commission or retained by the Company under Rule 433; *provided* that the prior written consent of the parties hereto shall be deemed to have been given in respect of the Free Writing Prospectuses included in Schedule I hereto. Any such free writing prospectus consented to by the Manager or the Company is hereinafter referred to as a “**Permitted Free Writing Prospectus**.” The Company agrees that (i) it has treated and will treat, as the case may be, each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus and (ii) it has complied and will comply, as the case may be, with the requirements of Rules 164 and 433 applicable to any Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping.

(i) The Company will not (i) take, directly or indirectly, any action designed to or that might reasonably be expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares or (ii) sell, bid for, purchase or pay any person (other than as contemplated by this Agreement or any Terms Agreement) any compensation for soliciting purchases of the Shares.

(j) The Company will, at any time during the term of this Agreement, as supplemented from time to time, advise the Manager promptly after it shall have received notice or obtain knowledge thereof, of any information or fact that would materially alter or affect any opinion, certificate, letter and other document provided to the Manager pursuant to Section 6 herein.

(k) Upon commencement of the offering of the Shares under this Agreement (if requested by the Manager) (and upon the recommencement of the offering of the Shares under this Agreement following the termination of a suspension of sales hereunder), and each time that (i) the Registration Statement or the Prospectus shall be amended or supplemented (other than (A) an Interim Prospectus Supplement filed pursuant to Rule 424(b) pursuant to Section 4(q) of this Agreement, (B) a prospectus supplement relating solely to the offering or resale of securities other than the Shares or (C) the filing with the Commission of any report under the Exchange Act except such reports referred to in Section 4(k)(ii)), (ii) there is filed with the Commission any annual report on Form 10-K or quarterly report on Form 10-Q, or any other document that contains financial statements or financial information that is incorporated by reference into the Prospectus, or any amendment thereto, or (iii) the Shares are delivered to the Manager as principal at the Time of Delivery pursuant to a Terms Agreement (the date of such commencement (in the case that the

above-mentioned request is made by the Manager), the date of each such recommencement and the date of each such event referred to in (i), (ii) and (iii) above, a “**Representation Date**”), the Company shall furnish or cause to be furnished to the Manager forthwith a certificate dated and delivered on such Representation Date, as the case may be, in form satisfactory to the Manager to the effect that the statements contained in the certificate referred to in Section 6(d) of this Agreement which were last furnished to the Manager are true and correct at the time of such Representation Date, as though made at and as of such time (except that such statements shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented to such time) or, in lieu of such certificate, a certificate of the same tenor as the certificate referred to in said Section 6(d), modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such certificate. The requirement to provide a certificate under this Section 4(k) shall be waived for any Representation Date occurring at a time when no Company order submitted to any Manager hereunder to sell Shares is pending or a suspension of sales hereunder is in effect, which waiver shall continue until the earlier to occur of the date the Company submits an order to any Manager to sell Shares hereunder (which for such calendar quarter shall be considered a Representation Date) and the next occurring Representation Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Shares following a Representation Date when the Company relied upon the foregoing waiver and therefore did not provide the Managers with a certificate under this Section 4(k), then before the Company submits an order for the sale of Shares or any Manager sells any Shares pursuant to such order, the Company shall provide the Manager with a certificate in conformity with this Section 4(k) dated as of the date that the order for the sale of Shares is submitted to any Manager hereunder, *provided* that for the avoidance of doubt, such date the certificate is delivered pursuant to the foregoing sentence shall also be a Representation Date.

(l) At the Execution Time, and at each Representation Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(k) for which no waiver is applicable, the Company shall furnish or cause to be furnished forthwith to the Manager and to counsel to the Manager (i) a written opinion of Cooley LLP, counsel to the Company (“**Company Counsel**”), or other counsel reasonably satisfactory to the Manager and (ii) a written opinion of the Company’s Chief Intellectual Property Officer (“**Intellectual Property Counsel**”), each dated and delivered on such Representation Date and in form and substance satisfactory to the Manager, of the same tenor as the opinion referred to in Section 6(b) of this Agreement, but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such opinion.

(m) At the Execution Time, and at each Representation Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(k) for which no waiver is applicable, Latham & Watkins LLP, counsel to the Manager, shall deliver a written opinion and disclosure letter, dated and delivered on such Representation Date, in form and substance satisfactory to the Manager, of the same tenor as the opinions and disclosure letter referred to in Section 6(c) of this Agreement but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such opinion.

(n) At the Execution Time and each Representation Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(k) for which no waiver is applicable, the Company shall cause Pricewaterhouse Coopers LLP (the “**Accountants**”), or other independent accountants satisfactory to the Manager forthwith, to furnish the Manager a letter, dated and delivered on such Representation Date, in form and substance satisfactory to the Manager of the same tenor as the letter referred to in Section 6(e) of this Agreement but modified to relate to the Registration Statement, the Disclosure Package and the Prospectus, as amended and supplemented to the date of such letter.

(o) At each Representation Date, the Company shall cause to be furnished to the Manager a certificate of its chief financial officer, dated and delivered on such Representation Date, in form and substance satisfactory to the Manager of the same tenor as the certificate referred to in Section 6(f) of this Agreement but modified to relate to the Registration Statement, the Disclosure Package and the Prospectus, as amended and supplemented to the date of such letter.

(p) At each Representation Date, and at such other times as may be reasonably requested by the Manager (which shall be on a monthly basis or otherwise), the Company will conduct a due diligence session, in form and substance satisfactory to the Manager, which shall include representatives of the management of the Company and the independent accountants of the Company. The Company shall cooperate timely with any reasonable due diligence request from or review conducted by the Manager or its agents from time to time in connection with the transactions contemplated by this Agreement, including, without limitation, providing information and available documents and access to appropriate officers and agents of the Company during regular business hours and at the Company’s principal offices, and timely furnishing or causing to be furnished such certificates, letters and opinions from the Company, and their officers and agents, as the Manager may reasonably request.

(q) Nothing in this Agreement shall restrict the Manager from trading, and the Company acknowledges that the Manager may trade in the Common Stock for the Manager’s own account and for the accounts of its clients before, at the same time as, or after sales of the Shares occur pursuant to this Agreement or pursuant to a Terms Agreement.

(r) The Company will either (i) disclose in its Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, with regard to the relevant quarter, the number of the Shares sold by or through the Manager pursuant to this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to such sales of the Shares pursuant to this Agreement, or (ii) on or prior to the earlier of (A) the date on which the Company shall file a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K in respect of any fiscal quarter in which sales of Shares were made by the Manager pursuant to this Agreement and (B) the date on which the Company shall be obligated to file such document referred to in clause (A) in respect of such quarter (each such date, and any date on which an amendment to any such document is filed, a “**Filing Date**”), the Company will file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b), which prospectus supplement will set forth, with regard to such quarter, the number of the Shares sold by or through the Manager pursuant to this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to such sales of the Shares pursuant to this Agreement and deliver such number of copies of each such prospectus supplement to the Nasdaq as are required by such exchange.

(s) If, to the knowledge of the Company, the conditions set forth in Section 6(a) or 6(f) shall not be true and correct on the applicable Settlement Date or Time of Delivery, the Company will offer to any person who has agreed to purchase Shares from the Company as the result of an offer to purchase solicited by the Manager the right to refuse to purchase and pay for such Shares.

(t) Each acceptance by the Company of an offer to purchase the Shares hereunder, and each execution and delivery by the Company of a Terms Agreement, shall be deemed to be an affirmation to the Manager party to a Terms Agreement, as the case may be, that the representations and warranties of the Company contained in or made pursuant to this Agreement are true and correct as of the date of such acceptance or of such Terms Agreement as though made at and as of such date, and an undertaking that such representations and warranties will be true and correct as of the Settlement Date for the Shares relating to such acceptance or as of the Time of Delivery relating to such sale, as the case may be, as though made at and as of such date (except that such representations and warranties shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented relating to such Shares).

(u) The Company will use its commercially reasonable efforts to cause the Shares to be listed for trading on Nasdaq and to maintain such listing.

(v) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Act, the Company shall file, on a timely basis, with the Commission and Nasdaq all reports and documents required to be filed under the Exchange Act and the regulations thereunder.

(w) The Company shall cooperate with the Manager and use its reasonable efforts to permit the Shares to be eligible for clearance and settlement through the facilities of DTC.

(x) The Company will apply the Net Proceeds from the sale of the Shares in the manner set forth in the Disclosure Package and the Prospectus.

5. Payment of Expenses. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations under this Agreement, whether or not the transactions contemplated hereby are consummated, including without limitation (i) all expenses incident to the issuance and delivery of the Shares (including all printing and engraving costs), (ii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Shares, (iii) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors to the Company, and the reasonable fees and expenses of the Manager's counsel (which shall not be more than one counsel unless otherwise agreed by the Company), (iv) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), each Issuer Free Writing Prospectus and the Prospectus, and all amendments and supplements thereto, and this Agreement, (v) all filing fees, attorneys' fees and expenses incurred by the Company or the Manager in connection with qualifying or registering (or obtaining exemptions from the qualification or

registration of) all or any part of the Shares for offer and sale under the state securities or blue sky laws, and, if requested by the Manager, preparing a “Blue Sky Survey” or memorandum, and any supplements thereto, advising the Manager of such qualifications, registrations and exemptions, (vi) the filing fees incident to the review and approval by FINRA of the terms of the sale of the Shares, (vii) the fees and expenses associated with listing of the Shares on the Nasdaq, (viii) all fees and expenses of the registrar and transfer agent of the Common Stock, (ix) all fees and expenses (including reasonable fees and expenses of counsel) of the Company in connection with approval of the Shares by DTC for “book-entry” transfer, (x) all other fees, costs and expenses referred to in Item 14 of Part II of the Registration Statement and (xi) all other fees, costs and expenses incurred in connection with the performance of its obligations hereunder for which provision is not otherwise made in this Section 5; provided, however, that the amount payable by the Company pursuant to subsection (iii) with respect to the reasonable fees and expenses of Manager’s counsel shall not exceed (A) \$100,000 arising out of the executing this Agreement and the filing of the Registration Statement and the Prospectus and (B) in the amount not to exceed \$15,000 per each quarter thereafter (solely for any quarter that includes a Representation Date with respect to which the Company is obligated to deliver a certificate pursuant to Section 4(k) for which no waiver is applicable). Except as provided in this Section 5 and in Section 7 hereof, the Manager shall pay their own expenses.

6. Conditions to the Obligations of the Manager. The obligations of the Manager under this Agreement and any Terms Agreement shall be subject to (i) the accuracy of the representations and warranties on the part of the Company contained herein as of the Execution Time, each Representation Date, and as of each Applicable Time, Settlement Date and Time of Delivery, (ii) to the performance by the Company of its obligations hereunder and (iii) the following additional conditions:

(a) The Prospectus, and any supplement thereto, required by Rule 424 to be filed with the Commission have been filed in the manner and within the time period required by Rule 424(b) with respect to any sale of Shares; each Interim Prospectus Supplement shall have been filed in the manner required by Rule 424(b) within the time period required by Section 4(q) of this Agreement; any material required to be filed by the Company pursuant to Rule 433(d) under the Act, shall have been filed with the Commission within the applicable time periods prescribed for such filings by Rule 433; and no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use shall have been issued and no proceedings for that purpose or pursuant to Section 8A of the Act shall have been instituted or threatened.

(b) The Company shall have requested and caused Company Counsel and Intellectual Property Counsel to furnish to the Manager, on every date specified in Section 4(l) of this Agreement, opinions in form and substance satisfactory to the manager.

(c) The Manager shall have received from Latham & Watkins LLP, counsel for the Manager, on every date specified in Section 4(m) of this Agreement, such opinion or opinions and disclosure letter or letters, dated as of such date and addressed to the Manager, with respect to the issuance and sale of the Shares, the Registration Statement, the Disclosure Package, the Prospectus (together with any supplement thereto) and other related matters as the Manager may reasonably require, and the Company shall have furnished to such counsel such documents as they reasonably request for the purpose of enabling them to pass upon such matters.

(d) The Company shall have furnished or caused to be furnished to the Manager, on every date specified in Section 4(k) of this Agreement, a certificate of the Company, signed by the chief executive officer or the President of the Company, and of the chief financial or chief accounting officer of the Company, dated as of such date, to the effect that the signers of such certificate have carefully examined the Registration Statement, the Disclosure Package and the Prospectus and any supplements or amendments thereto and this Agreement and that:

(i) the Company has received no stop order suspending the effectiveness of the Registration Statement, and no proceedings for such purpose or pursuant to Section 8A of the Act have been instituted or, to the Company's knowledge, threatened by the Commission;

(ii) since the date of the most recent financial statements included in the Prospectus and the Disclosure Package, there has been no event or condition of a type described in Section 2(l) hereof (a "**Material Adverse Change**"), except as set forth in or contemplated in the Disclosure Package and the Prospectus;

(iii) the representations, warranties and covenants set forth in Section 2 of this Agreement are true and correct with the same force and effect as though expressly made on and as of such date; and

(iv) the Company and its subsidiaries have complied with all the agreements hereunder and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such date.

(e) The Company shall have requested and caused the Accountants to have furnished to the Manager, on every date specified in Section 4(n) hereof and to the extent requested by the Manager in connection with any offering of the Shares, letters (which may refer to letters previously delivered to the Manager), dated as of such date, in form and substance satisfactory to the Manager, which letters shall cover, without limitation, the various financial statements and disclosures contained in the Registration Statement, the Disclosure Package and the Prospectus and other matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings as contemplated in the Statement on Auditing Standards No. 72, as well as confirming that they have performed a review of any unaudited interim financial information of the Company included in the Registration Statement, the Disclosure Package and the Prospectus in accordance with Statement on Auditing Standards No. 100.

References to the Prospectus in this paragraph (e) include any supplement thereto at the date of the letter.

(f) The Company shall have furnished or caused to be furnished to the Manager, on every date specified in Section 4(o) of this Agreement, a certificate of the chief financial officer of the Company, dated as of such date, in form and substance to the Manager and agreed upon prior to the date hereof, covering certain financial matters of the Company.

(g) Since the respective dates as of which information is disclosed in the Registration Statement, the Disclosure Package and the Prospectus, except as otherwise stated therein, there shall not have been (i) any change specified in the letter or letters referred to in paragraph (e) of this Section 6 or (ii) Material Adverse Change, except as set forth in or contemplated in the Disclosure Package (exclusive of any amendment or supplement thereto) the effect of which, in any case referred to in clause (i) or (ii) above, is, in the sole judgment of the Manager, so material and adverse as to make it impractical or inadvisable to proceed with the offering or delivery of the Shares as contemplated by the Registration Statement (exclusive of any amendment thereof), the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(h) FINRA shall not have raised any objection with respect to the fairness and reasonableness of the terms and arrangements under this Agreement.

(i) Nasdaq shall not have objected to the listing of the Shares for trading on Nasdaq.

(j) Prior to each Settlement Date and Time of Delivery, as applicable, the Company shall have furnished to the Manager such further information, certificates and documents as the Manager may reasonably request.

If any of the conditions specified in this Section 6 shall not have been fulfilled when and as provided in this Agreement, or if any of the opinions and certificates mentioned above or elsewhere in this Agreement shall not be reasonably satisfactory in form and substance to the Managers and counsel for the Manager, this Agreement and all obligations of the Manager hereunder may be canceled at, or at any time prior to, any Settlement Date or Time of Delivery, as applicable, by the Manager with respect to itself only. Notice of such cancellation shall be given to the Company in writing or by telephone or facsimile confirmed in writing.

The documents required to be delivered by this Section 6 shall be delivered at the office of Latham & Watkins LLP, counsel for the Manager, at 140 Scott Drive, Menlo Park, CA 94025, on each such date as provided in this Agreement.

7. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless the Manager, its affiliates, as such term is defined in Rule 501(b) under the Act (each, an “**Affiliate**”), the directors, officers, employees and agents of the Manager, any broker-dealer affiliate of the Manager through which Shares are sold, and each person who controls the Manager within the meaning of either the Act or the Exchange Act and against any loss, claim, damage, liability or expense, as incurred, to which they or any of them may become subject under the Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company or otherwise permitted by paragraph (d) below), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based (i) upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto) or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) upon any untrue statement or alleged untrue statement of a material fact contained in any Issuer Free Writing

Prospectus or any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Act, the Base Prospectus, the Prospectus or any Interim Prospectus Supplement (or any amendment or supplement thereto) or the omission or alleged omission therefrom of a material fact, in each case, necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; or (iii) in whole or in part upon any inaccuracy in the representations and warranties of the Company contained herein; or (iv) in whole or in part upon any failure of the Company to perform its obligations hereunder or under law and agrees to reimburse each such indemnified party, for any and all expenses (including the reasonable fees and disbursements of counsel chosen by the indemnified party) as such expenses are reasonably incurred by them in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Manager expressly for use in the Registration Statement (or any amendment thereto), any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto). This indemnity agreement will be in addition to any liabilities that the Company may otherwise have.

(b) The Manager agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of the Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company or any such director, officer or controlling person may become subject, under the Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Manager or otherwise permitted by paragraph (d) below), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based (i) upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto) or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) upon any untrue statement or alleged untrue statement of a material fact contained in any Issuer Free Writing Prospectus or any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Act, the Base Prospectus, the Prospectus or any Interim Prospectus Supplement (or any amendment or supplement thereto) or the omission or alleged omission therefrom of a material fact, in each case, necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Base Prospectus, any Issuer Free Writing Prospectus, any Prospectus or any Interim Prospectus Supplement (or any amendment or supplement thereto), in reliance upon and in conformity with written information furnished to the Company by the Manager expressly for use therein; and to reimburse the Company, or any such director, officer or controlling person for any legal and other expense reasonably incurred by the Company, or any such director, officer or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The indemnity agreement set forth in this Section 7(b) shall be in addition to any liabilities that the Manager may otherwise have. The Company acknowledges that with respect to the Manager, the name of the

Manager constitutes the only information furnished in writing by or on behalf of the Manager for inclusion in the Registration Statement, the Base Prospectus, any Issuer Free Writing Prospectus, any prospectus supplement or any Interim Prospectus Supplement (or any amendment or supplement thereto).

(c) Promptly after receipt by an indemnified party under this Section 7 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 7, notify the indemnifying party in writing of the commencement thereof; but the omission to so notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party for contribution or otherwise than under the indemnity agreement contained in paragraph (a) or (b) above or to the extent it is not prejudiced (through the forfeiture of substantive rights or defenses) as a proximate result of such failure. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 7 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the next preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the expenses of more than one separate counsel (together with local counsel), approved by the indemnifying party (the Manager in the case of Section 7(b) and Section 7(e)), representing the indemnified parties who are parties to such action), (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party or (iii) the indemnifying party shall authorize the indemnified party to employ separate counsel at the expense of the indemnifying party.

(d) The indemnifying party under this Section 7 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for reasonable and

documented fees and expenses of counsel as contemplated by Section 7(c) hereof, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 60 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent (i) includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(e) If the indemnification provided for in this Section 7 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Manager, on the other hand, from the offering of the Shares pursuant to this Agreement, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Manager, on the other hand, in connection with the statements or omissions or inaccuracies in the representations and warranties herein which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company shall be deemed to be equal to the total net proceeds from the offering (before deducting expenses) received by them, and benefits received by the Manager shall be deemed to be equal to the total compensation received by the Manager under Section 3(c) of this Agreement, in each case as determined by this Agreement or any applicable Terms Agreement. The relative fault of the Company, on the one hand, and the Manager, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact or any such inaccurate or alleged inaccurate representation or warranty relates to information supplied by the Company, on the one hand, or the Manager, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 7(c), any legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 7(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 7(e); *provided, however*, that no additional notice shall be required with respect to any action for which notice has been given under Section 7(c) for purposes of indemnification.

The Company and the Manager agree that it would not be just and equitable if contribution pursuant to this Section 7(e) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 7(e).

Notwithstanding the provisions of this Section 7(e), the Manager shall not be required to contribute any amount in excess of the discounts and commissions received by it in connection with the Shares sold by it pursuant to this Agreement and any applicable Terms Agreement in the specific transaction or transactions giving rise to the contribution obligation. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 7(e), each Affiliate, director, officer, employee and agent of the Manager, each person, if any, who controls the Manager within the meaning of the Act and the Exchange Act and any broker-dealer affiliate of the Manager through which Shares are sold shall have the same rights to contribution as the Manager, and each director of the Company or each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Act and the Exchange Act shall have the same rights to contribution as the Company.

8. Termination.

(a) The Company shall have the right, by giving written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that (i) if Shares have been sold through the Manager for the Company, then Section 4(s) shall remain in full force and effect with respect to the Manager and the Company, (ii) with respect to any pending sale, through the Manager for the Company, the obligations of the Company, including in respect of compensation of the Manager, shall remain in full force and effect notwithstanding the termination and (iii) the provisions of Sections 2, 5, 7, 9, 10, 12 and 14 of this Agreement shall remain in full force and effect notwithstanding such termination.

(b) The Manager shall have the right, by giving written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that the provisions of Sections 2, 5, 7, 9, 10, 12 and 14 of this Agreement shall remain in full force and effect with respect to the Manager notwithstanding such termination.

(c) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 8(a) or (b) above or otherwise by mutual agreement of the parties; *provided* that any such termination by mutual agreement shall in all cases be deemed to provide that Sections 2, 5, 7 and 9 shall remain in full force and effect.

(d) Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided* that such termination shall not be effective until the close of business on the date of receipt of such notice by the Manager or the Company, as the case may be. If such termination shall occur prior to the Settlement Date or Time of Delivery for any sale of the Shares, such sale shall, subject to Section 6 hereof, settle in accordance with the provisions of Section 3(e) of this Agreement.

(e) In the case of any purchase of Shares by the Manager pursuant to a Terms Agreement, the obligations of the Manager pursuant to such Terms Agreement shall be subject to termination, in the absolute discretion of the Manager, by notice given to the Company prior to the Time of Delivery relating to such Shares, if at any time prior to such delivery and payment (i) trading or quotation in any of the Company's securities shall have been suspended or limited by the Commission or by Nasdaq, or trading in securities generally on either Nasdaq or the New York Stock Exchange shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges by the Commission or FINRA; (ii) a general banking moratorium shall have been declared by any of federal or New York authorities; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity involving the United States, or any change in the United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States' or international political, financial or economic conditions, as in the judgment of the Manager is material and adverse and makes it impracticable or inadvisable to proceed with the offering or delivery of the Shares in the manner and on the terms described in the Disclosure Package and the Prospectus or to enforce contracts for the sale of securities; (iv) in the judgment of the Manager there shall have occurred any Material Adverse Change or (v) there shall have occurred a material disruption in commercial banking or securities settlement or clearance services in the United States.

9. Representations and Indemnities to Survive. The respective agreements, representations, warranties, indemnities and other statements of the Company, the officers of the Company and of the Manager set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by the Manager or the Company or any of the officers, directors, employees, agents or controlling persons referred to in Section 7 hereof, and will survive delivery of and payment for the Shares.

10. Notices. All communications hereunder will be in writing and effective only on receipt, and:

If sent to Goldman, will be mailed, delivered or telefaxed to:

Goldman, Sachs & Co. LLC
200 West Street
New York, New York 10282
Facsimile: (212) 902-9316
Attention: Registration Department

with a copy to:

Latham & Watkins LLP
140 Scott Drive
Menlo Park, CA 94025
Facsimile: (650)-463-2600
Attention: Brian Cuneo

If sent to the Company, will be mailed, delivered or telefaxed to:

FibroGen, Inc.
409 Illinois Street
San Francisco, CA 84158
Attention: Chief Legal Officer

with a copy to:

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
Facsimile: (650) 843-7400
Attention: Nancy Wojtas

Any party hereto may change the address for receipt of communications by giving written notice to the others.

11. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers, directors, employees, agents and controlling persons referred to in Section 7 hereof, and no other person will have any right or obligation hereunder.

12. No Fiduciary Duty. The Company hereby acknowledges that (a) the purchase and sale of the Shares pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the Manager and any affiliate through which it may be acting, on the other, (b) the Manager is acting solely as sales agent and/or principal in connection with the purchase and sale of the Company's securities and not as a fiduciary of the Company and (c) the Company's engagement of the Manager in connection with the offering and the process leading up to the offering is as an independent contractor and not in any other capacity. Furthermore, the Company agrees that it is solely responsible for making its own judgments in connection with the offering (irrespective of whether the Manager has advised or is currently advising it on related or other matters). The Company agrees that it will not claim that the Manager has rendered advisory services of any nature or respect, or owe an agency, fiduciary or similar duty to the Company, in connection with the transactions contemplated by this Agreement or the process leading thereto.

13. Integration. This Agreement and any Terms Agreement supersede all prior agreements and understandings (whether written or oral) between the Company and the Manager with respect to the subject matter hereof.

14. Applicable Law. This Agreement and any Terms Agreement will be governed by and construed in accordance with the laws of the State of New York applicable to contracts made and to be performed within the State of New York.

15. Waiver of Jury Trial. The Company hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement, any Terms Agreement or the transactions contemplated hereby or thereby.

16. Counterparts. This Agreement and any Terms Agreement may be signed in one or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same agreement.

17. Headings. The section headings used in this Agreement and any Terms Agreement are for convenience only and shall not affect the construction hereof.

18. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that the Manager is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from the Manager of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that the Manager is a Covered Entity or a BHC Act Affiliate of the Manager becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against the Manager are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

As used in this Section 18:

“**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k).

“**Covered Entity**” means any of the following:

- (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);
- (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or
- (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

19. Definitions. The terms that follow, when used in this Agreement and any Terms Agreement, shall have the meanings indicated.

“**Act**” shall mean the Securities Act of 1933, as amended, and the rules and regulations of the Commission promulgated thereunder.

“**Applicable Time**” shall mean, with respect to any Shares, the time of sale of such Shares pursuant to this Agreement or any relevant Terms Agreement.

“**Base Prospectus**” shall mean the base prospectus referred to in Section 2(a) above contained in the Registration Statement at the Execution Time.

“**Business Day**” shall mean any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions or trust companies are authorized or obligated by law to close in New York City.

“**Commission**” shall mean the Securities and Exchange Commission.

“**Disclosure Package**” shall mean (i) the Base Prospectus, (ii) the Prospectus, (iii) the most recently filed Interim Prospectus Supplement, if any, (iv) the Issuer Free Writing Prospectuses, if any, identified in Schedule I hereto, (v) the public offering price of Shares sold at the relevant Applicable Time as specified in a Terms Agreement and (vi) any other Free Writing Prospectus that the parties hereto shall hereafter expressly agree in writing to treat as part of the Disclosure Package.

“**Effective Date**” shall mean each date and time that the Registration Statement and any post-effective amendment or amendments thereto became or becomes effective.

“**Exchange Act**” shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission promulgated thereunder.

“**Execution Time**” shall mean the date and time that this Agreement is executed and delivered by the parties hereto.

“**Free Writing Prospectus**” shall mean a free writing prospectus, as defined in Rule 405.

“**Interim Prospectus Supplement**” shall mean the prospectus supplement relating to the Shares prepared and filed pursuant to Rule 424(b) from time to time as provided by Section 4(q) of this Agreement.

“Issuer Free Writing Prospectus” shall mean an issuer free writing prospectus, as defined in Rule 433.

“Prospectus” shall mean the Prospectus included in the Registration Statement relating to the Shares and the most recently filed Interim Prospectus Supplement (if any).

“Registration Statement” shall mean the registration statement referred to in Section 2(a) above, including exhibits and financial statements and any prospectus supplement relating to the Shares that is filed with the Commission pursuant to Rule 424(b) and deemed part of such registration statement pursuant to Rule 430B, as amended on each Effective Date and, in the event any post-effective amendment thereto becomes effective, shall also mean such registration statement as so amended.

“Rule 158,” “Rule 163,” “Rule 164,” “Rule 172,” “Rule 405,” “Rule 415,” “Rule 424,” “Rule 430B” and **“Rule 433”** refer to such rules under the Act.

[Signature Page Follows]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicate hereof, whereupon this letter and your acceptance shall represent a binding agreement among the Company and the Manager.

Very truly yours,

FIBROGEN, INC.

By: /s/ Juan Graham

Name: Juan Graham

Title: SVP, Chief Financial Officer

SIGNATURE PAGE TO EQUITY DISTRIBUTION AGREEMENT

CONFIRMED AND ACCEPTED,
as of the date first written above:

Goldman, Sachs & Co. LLC

By: /s/ Danielle Freeman

Name: Danielle Freeman

Title: Managing Director

SIGNATURE PAGE TO EQUITY DISTRIBUTION AGREEMENT

SCHEDULE I

Schedule of Free Writing Prospectuses included in the Disclosure Package

None

Schedule I

FIBROGEN, INC.
Common Stock (\$0.01 par value)
TERMS AGREEMENT

_____, 20__

Goldman, Sachs & Co. LLC
200 West Street
New York, New York 10282

Dear Sirs:

FibroGen, Inc., a Delaware corporation (the "Company") proposes, subject to the terms and conditions stated herein and in the Equity Distribution Agreement, dated August 8, 2022 (the "Equity Distribution Agreement"), among the Company, Goldman, Sachs & Co. LLC, to issue and sell to Goldman, Sachs & Co. LLC, the securities specified in the Schedule I hereto (the "Purchased Shares").

Each of the provisions of the Equity Distribution Agreement not specifically related to the solicitation by the Manager, as agent of the Company, of offers to purchase securities is incorporated herein by reference in its entirety, and shall be deemed to be part of this Terms Agreement to the same extent as if such provisions had been set forth in full herein. Each of the representations and warranties set forth therein shall be deemed to have been made at and as of the date of this Terms Agreement and the Time of Delivery, except that each representation and warranty in Section 2 of the Equity Distribution Agreement which makes reference to the Prospectus (as therein defined) shall be deemed to be a representation and warranty as of the date of the Equity Distribution Agreement in relation to the Prospectus, and also a representation and warranty as of the date of this Terms Agreement [and] [,] the Time of Delivery in relation to the Prospectus as amended and supplemented to relate to the Purchased Shares.

An amendment to the Registration Statement (as defined in the Equity Distribution Agreement), or a supplement to the Prospectus, as the case may be, relating to the Purchased Shares, in the form heretofore delivered to the Manager is now proposed to be filed with the Securities and Exchange Commission.

Subject to the terms and conditions set forth herein and in the Equity Distribution Agreement which are incorporated herein by reference, the Company agrees to issue and sell to the Manager and the latter agrees to purchase from the Company the number of shares of the Purchased Shares at the time and place and at the purchase price set forth in the Schedule I hereto.

If the foregoing is in accordance with your understanding, please sign and return to us a counterpart hereof, whereupon this Terms Agreement, including those provisions of the Equity Distribution Agreement incorporated herein by reference, shall constitute a binding agreement between the Manager and the Company.

FIBROGEN, INC.

By: _____
Name:
Title:

ACCEPTED as of the date first written above.

GOLDMAN, SACHS & CO. LLC

By: _____
Name:
Title:

Title of Purchased Shares [and Additional Shares]:

Common Stock

Number of Shares of Purchased Shares:

[Number of Shares of Additional Shares:]

[Price to Public:]

Purchase Price by [Goldman, Sachs & Co. LLC]:

Method of and Specified Funds for Payment of Purchase Price:

By wire transfer to a bank account specified by the Company in same day funds.

Method of Delivery:

Free delivery of the Shares to the Manager's account at The Depository Trust Company in return for payment of the purchase price.

Time of Delivery:

Closing Location:

Documents to be Delivered:

The following documents referred to in the Equity Distribution Agreement shall be delivered as a condition to the closing at the Time of Delivery [and on any Option Closing Date]:

- (1) The opinion referred to in Section 4(l).
- (2) The opinion referred to in Section 4(m).
- (3) The accountants' letter referred to in Section 4(n).
- (4) The officers' certificate referred to in Section 4(k).
- (5) Such other documents as the Manager shall reasonably request.

Annex II

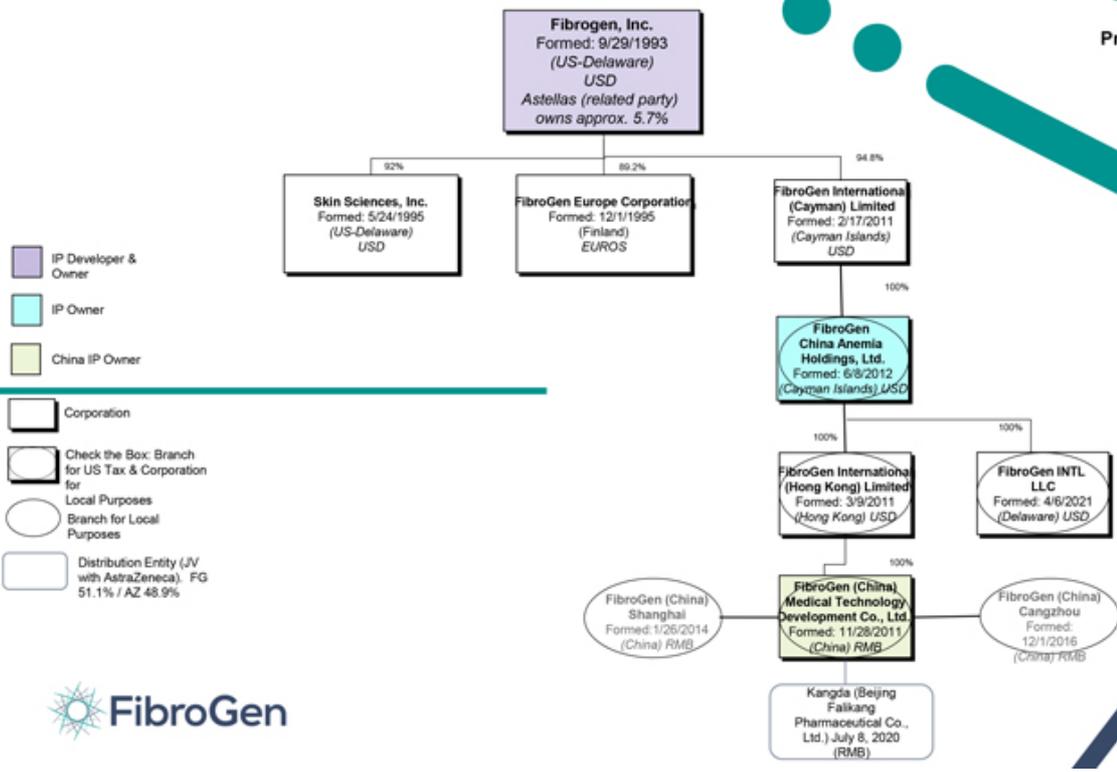
Organizational Chart

of

FibroGen, Inc.

And its Cayman, Hong Kong and China Subsidiaries

FibroGen Legal Entity Chart
 April 2021
 Private & Confidential



- IP Developer & Owner
- IP Owner
- China IP Owner
- Corporation
- Check the Box: Branch for US Tax & Corporation for Local Purposes
- Branch for Local Purposes
- Distribution Entity (JV with AstraZeneca). FG 51.1% / AZ 48.9%





Michael Tenta
 T: +1 650 843 5636
 mtenta@cooley.com

August 8, 2022

FibroGen, Inc.
 409 Illinois Street
 San Francisco, CA 94158

Ladies and Gentlemen:

We have acted as counsel to FibroGen, Inc., a Delaware corporation (the “Company”), in connection with the filing of a Registration Statement on Form S-3 (the “**Registration Statement**”) by the Company under the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement includes two prospectuses, (i) a base prospectus (the “**Base Prospectus**”) and (ii) a prospectus (the “**Equity Distribution Agreement Prospectus**”) covering up to \$200,000,000 of shares of the Company’s common stock, par value \$0.01 per share (“**Common Stock**”) that may be sold under the Equity Distribution Agreement, dated August 8, 2022, between the Company and Goldman Sachs & Co. LLC (such agreement, the “**Equity Distribution Agreement**”, and such shares, the “**Placement Shares**”). The Base Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each, a “**Prospectus Supplement**”). The Registration Statement, including the Base Prospectus (as supplemented from time to time by one or more Prospectus Supplements) and the Equity Distribution Agreement Prospectus will provide for the registration by the Company of:

- shares of Common Stock (the “**Base Prospectus Shares**”);
- shares of preferred stock, par value \$0.01 per share, of the Company (the “**Preferred Stock**”);
- debt securities, in one or more series (the “**Debt Securities**”), which may be issued pursuant to an indenture to be dated on or about the date of the first issuance of Debt Securities thereunder, by and between a trustee to be selected by the Company (the “**Trustee**”) and the Company, in the form filed as Exhibit 4.2 to the Registration Statement and one or more indentures supplemental thereto with respect to any particular series of Debt Securities (the “**Indenture**”);
- warrants to purchase Common Stock, Preferred Stock, or Debt Securities (the “**Warrants**”), which may be issued under one or more warrant agreements, to be dated on or about the date of the first issuance of the Warrants thereunder, by and between a warrant agent to be selected by the Company (the “**Warrant Agent**”) and the Company, in the forms filed as Exhibits 4.4, 4.5 and 4.6 to the Registration Statement, respectively (each, a “**Warrant Agreement**”); and
- the Placement Shares.

The Base Prospectus Shares, the Preferred Stock, the Debt Securities, the Warrants, and the Placement Shares, plus any additional Common Stock, Preferred Stock, Debt Securities and Warrants that may be registered pursuant to any registration statement that the Company may hereafter file with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act in connection with an offering by the Company pursuant to the Registration Statement, are collectively referred to herein as the “**Securities**.” The Securities are being registered for offer and sale from time to time pursuant to Rule 415 under the Securities Act.



In connection with this opinion, we have examined and relied upon such records, documents, certificates, opinions, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

In rendering this opinion, we have assumed the genuineness of all signatures; the authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where authorization, execution and delivery are prerequisites to the effectiveness of such documents.

With respect to our opinion as to the Base Prospectus Shares, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock will be authorized and available for issuance and that the consideration for the issuance and sale of the Base Prospectus Shares (or Preferred Stock or Debt Securities convertible into, or Warrants exercisable for, Common Stock) will be in an amount that is not less than the par value of the Common Stock. With respect to our opinion as to the Preferred Stock, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Preferred Stock will be authorized, designated and available for issuance and that the consideration for the issuance and sale of the Preferred Stock (or Debt Securities convertible into, or Warrants exercisable for, Preferred Stock) will be in an amount that is not less than the par value of the Preferred Stock. We have also assumed that any Debt Securities or Warrants offered under the Registration Statement, and the related Indenture and Warrant Agreement will be executed in the forms filed as exhibits to the Registration Statement or incorporated by reference therein. We have also assumed that (i) with respect to Securities issuable upon conversion of any convertible Preferred Stock, such convertible Preferred Stock will be duly authorized, validly issued, fully paid and nonassessable; and (ii) with respect to any Securities issuable upon conversion of any convertible Debt Securities or upon exercise of any Warrants, such convertible Debt Securities or Warrants will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws affecting creditors' rights, and subject to general equity principles and to limitations on availability of equitable relief, including specific performance.

With respect to the Placement Shares, we have assumed (i) that the specific sale of the Placement Shares will be duly authorized by the Board of Directors of the Company, a duly authorized committee thereof or a person or body pursuant to an authorization granted in accordance with Section 152 of the General Corporation Law of the State of Delaware (the "**DGCL**") and (ii) that no more than 30,000,000 Placement Shares will be sold for a consideration not less than the par value of the Common Stock. With respect to the Placement Shares, we express no opinion to the extent that future issuances of securities of the Company and/or anti-dilution adjustments to outstanding securities of the Company cause the number of shares of Common Stock then available for issuance to be less than the number of Placement Shares then issuable under the Equity Distribution Agreement.

Our opinion herein is expressed solely with respect to the DGCL and, as to the Debt Securities and the Warrants constituting valid and legally binding obligations of the Company, the laws of the State of New York. Our opinion is based on these laws as in effect on the date hereof. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation

On the basis of the foregoing and in reliance thereon, and subject to the qualifications herein stated, we are of the opinion that:

1. With respect to the Base Prospectus Shares offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the issuance of the

Base Prospectus Shares has been duly authorized by all necessary corporate action on the part of the Company; (iii) the issuance and sale of the Base Prospectus Shares do not violate any applicable law, are in conformity with the Company's then operative certificate of incorporation (the "**Certificate of Incorporation**") and bylaws (the "**Bylaws**"), do not result in a default under or breach of any agreement or instrument binding upon the Company and comply with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates, if any, for the Base Prospectus Shares have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Base Prospectus Shares, when issued and sold as contemplated in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), and in accordance with a duly authorized, executed and delivered purchase, underwriting or similar agreement, or upon conversion of any convertible Preferred Stock or convertible Debt Securities in accordance with their terms, or upon exercise of any Warrants in accordance with their terms, will be validly issued, fully paid and nonassessable.

2. With respect to the Preferred Stock offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the terms and issuance of the Preferred Stock have been duly authorized by all necessary corporate action on the part of the Company; (iii) the terms of the shares of Preferred Stock and their issuance and sale do not violate any applicable law, are in conformity with the Certificate of Incorporation and Bylaws, do not result in a default under or breach of any agreement or instrument binding upon the Company and comply with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates, if any, for the Preferred Stock have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Preferred Stock, when issued and sold as contemplated in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s) and in accordance with a duly authorized, executed and delivered purchase, underwriting or similar agreement, or upon conversion of any convertible Debt Securities in accordance with their terms, or upon exercise of any Warrants in accordance with their terms, will be validly issued, fully paid and nonassessable.

3. With respect to any series of the Debt Securities issued under the Indenture and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the Indenture has been duly authorized by the Company and the Trustee by all necessary corporate action; (iii) the Indenture in substantially the form filed as an exhibit to the Registration Statement, has been duly executed and delivered by the Company and the Trustee and has been qualified under the Trust Indenture Act of 1939, as amended; (iv) the issuance and terms of the Debt Securities have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Debt Securities and of their issuance and sale have been duly established in conformity with the Indenture so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and the Bylaws, and so as to comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (vi) the notes representing the Debt Securities have been duly executed and delivered by the Company and authenticated by the Trustee pursuant to the Indenture and delivered against payment therefor, then the Debt Securities, when issued and sold in accordance with the Indenture and a duly authorized, executed and delivered purchase, underwriting or similar agreement, or upon exercise of any Warrants in accordance with their terms, will be valid and legally binding obligations of the Company, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting creditors' rights generally, and by general equitable principles (regardless of whether considered in a proceeding at law or in equity).

4. With respect to the Warrants issued under the Warrant Agreements and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective



amendment thereto have become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the applicable Warrant Agreement has been duly authorized by the Company and the Warrant Agent by all necessary corporate action; (iii) the applicable Warrant Agreement has been duly executed and delivered by the Company and the Warrant Agent; (iv) the issuance and terms of the Warrants have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Warrants and of their issuance and sale have been duly established in conformity with the applicable Warrant Agreement and as described in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and the Bylaws, and so as to comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (vi) the Warrants have been duly executed and delivered by the Company and authenticated by the Warrant Agent pursuant to the applicable Warrant Agreement and delivered against payment therefor, then the Warrants, when issued and sold as contemplated in the Registration Statement, the Base Prospectus and the Prospectus Supplement(s) and in accordance with the applicable Warrant Agreement and a duly authorized, executed and delivered purchase, underwriting or similar agreement, will be valid and legally binding obligations of the Company, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting creditors' rights generally, and by general equitable principles (regardless of whether considered in a proceeding at law or in equity).

5. The Placement Shares, when issued and paid for in accordance with the Equity Distribution Agreement and as provided in the Equity Distribution Agreement Prospectus, will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Base Prospectus and the Equity Distribution Agreement Prospectus. We further consent to the incorporation by reference of this opinion into any registration statement filed pursuant to Rule 462(b) under the Securities Act with respect to additional Securities.

Our opinion set forth above is limited to the matters expressly set forth in this letter, and no opinion is implied or may be inferred beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof, and we undertake no obligation or responsibility to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Very truly yours,

COOLEY LLP

By: /s/ Michael Tenta

Michael Tenta

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of FibroGen, Inc. of our report dated February 28, 2022 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in FibroGen, Inc.'s Amendment No. 1 to the Annual Report on Form 10-K for the year ended December 31, 2021. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
San Jose, California
August 8, 2022

Calculation of Filing Fee Table

Form S-3
(Form Type)FIBROGEN, INC.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	Equity	Common Stock, \$0.01 par value per share	Rule 456(b) and Rule 457(r)	(1)(2)	(3)	(3)	(4)	(4)				
	Equity	Preferred Stock, \$0.01 par value per share	Rule 456(b) and Rule 457(r)	(1)(2)	(3)	(3)	(4)	(4)				
	Debt	Debt Securities	Rule 456(b) and Rule 457(r)	(1)(2)	(3)	(3)	(4)	(4)				
	Other	Warrants	Rule 456(b) and Rule 457(r)	(1)(2)	(3)	(3)	(4)	(4)				
	Equity	Common Stock, \$0.01 par value per share	Rule 457(o)	(5)	(3)	\$200,000,000	0.0000927	\$18,540				
Carry Forward Securities												
Carry Forward Securities	N/A	N/A	N/A	N/A		N/A			N/A	N/A	N/A	N/A
	Total Offering Amounts					\$200,000,000		\$18,540				
	Total Fees Previously Paid							N/A				
	Total Fee Offsets							N/A				
	Net Fee Due							\$18,540				

- (1) The securities registered hereunder include such indeterminate number of (a) shares of common stock, (b) shares of preferred stock, (c) debt securities, and (d) warrants to purchase common stock, preferred stock or debt securities of the registrant, as may be sold from time to time by the registrant. There are also being registered hereunder an indeterminate number of shares of common stock and preferred stock as shall be issuable upon conversion, exchange or exercise of any securities that provide for such issuance. Any securities registered hereunder may be sold separately or together with the other securities registered hereunder.
- (2) Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, this registration statement shall also cover any additional shares of the registrant's securities that become issuable by reason of any share splits, share dividends or similar transactions.
- (3) The proposed maximum per security and aggregate offering prices per class of securities will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and is not specified as to each class of security. Separate consideration may or may not be received for securities that are issuable on exercise, conversion or exchange of other securities, or that are issued in together with other securities.
- (4) In accordance with Rules 456(b) and 457(r) under the Securities Act, except with respect to \$18,540 to be paid in connection with the primary offering of common stock described in this table, the registrant is deferring payment of the registration fee. Any registration fees will be paid subsequently on a pay-as-you-go basis in accordance with Rule 457(r).
- (5) An indeterminate number of shares of common stock is being registered as may from time to time be offered hereunder at indeterminate prices.