Confidential draft no. 4 submitted to the Securities and Exchange Commission on September 24, 2014.
This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains strictly confidential.
Registration No. 333-

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

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

FibroGen, Inc.
(Exact name of registrant as specified in its charter)

Delaware	2834	77-0357827
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

409 Illinois St.
San Francisco, CA 94158
(415) 978-1200
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Copies to:

Glen Sato	Michael Lowenstein	John L. Savva
Michael E. Tenta	Vice President, Legal Affairs	Sullivan & Cromwell LLP
Cooley LLP	FibroGen, Inc.	1870 Embarcadero Road
3175 Hanover Street	409 Illinois Street	Palo Alto, CA 94303
Palo Alto, CA 94304	San Francisco, CA 94158	(650) 461-5600
(650) 843-5000	(415) 978-1200	

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

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

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price (1)(2)	Amount of Registration Fee (3)
Common Stock, $0.01 par value per share	$	$

(1) Estimated solely for the purpose of computing the amount of registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Includes shares the underwriters have the option to purchase.
(3) Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended, based on an estimate of the proposed maximum aggregate offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Draft Registration Statement No. 4 is being submitted solely for the purposes of filing certain new exhibits and amending the disclosures in Items 15 and 16 of Part II of such Draft Registration Statement. No changes or additions are being made hereby to the Prospectus constituting Part I of the Draft Registration Statement (not included herein) or to Items 13, 14 or 17 of Part II of the Draft Registration Statement.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses, other than the underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered. All the amounts shown are estimates except the SEC registration fee, the FINRA filing fee and listing fee.

	Amount to be Paid
SEC registration fee	$ *
FINRA filing fee	*
Exchange listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Blue Sky fees and expenses	*
Miscellaneous fees and expenses	*
Total	$

* To be filed by Amendment.

Item 14. 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 that will be in effect upon the completion of this offering 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 that will be in effect upon the completion of this offering 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.

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 underwriters are obligated, under certain circumstances, pursuant to the underwriting agreement to be filed as Exhibit 1.1 hereto, to indemnify us, our officers and directors against liabilities under the Securities Act.

Item 15. Recent Sales of Unregistered Securities

Since January 1, 2011, we have made the following sales of unregistered securities:

(1) We granted stock options under our 2005 Plan to purchase an aggregate of 13,902,573 shares of our common stock having exercise prices ranging from $1.16 to $5.83 per share to our employees, directors and consultants.

(2) We have issued and sold to our employees an aggregate of 955,539 shares of our common stock upon the exercise of options under our 2005 Plan at exercise prices ranging from $0.80 to $5.83 per share, for an aggregate amount of approximately $1,151,755.

(3) We have granted stock appreciation rights for an aggregate of 45,000 shares of our common stock under our 2005 Plan to our employees, directors and consultants.

(4) We have issued and sold to our employees an aggregate of 117,456 shares of our common stock upon the exercise of options under our 1999 Plan at exercise prices ranging from $0.55 to $0.80 per share, for an aggregate amount of approximately $85,340.

The offers, sales and issuances of the securities described in paragraphs (1), (2), (3) and (4) were exempt from registration under either (a) Section 4(a)(2) of the Securities Act in that the transactions were by an issuer not involving any public offerings or under (b) compensatory benefit plans and contracts relating to compensation as provided under Rule 701 promulgated under the Securities Act.

Item 16. Exhibits and Financial Statement Schedule

(a) Exhibits.

The following exhibits are included herein or incorporated herein by reference:

Exhibit Number	Description of Document
1.1*	Form of Underwriting Agreement.
3.1**	Certificate of Incorporation of the Registrant, as amended and as presently in effect.
3.2**	Bylaws of the Registrant, as amended and as presently in effect.
3.3*	Form of Amended and Restated Certificate of Incorporation of the Registrant, to be in effect upon completion of this offering.
3.4*	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of this offering.
4.1*	Form of Common Stock Certificate
4.2**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of December 1995.
4.3**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of February 20, 1998.
4.4**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of May 12, 2000, as amended in December 2004 and September 2005.
4.5**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of December 22, 2004, as amended in September 2005.
4.6**	Investor Rights Agreement by and among the Registrant and certain of its warrant holders, dated as of June 3, 1999.

Exhibit Number	Description of Document
4.7**	Investor Rights Agreement by and among the Registrant and certain of its warrant holders, dated as of February 8, 2000.
4.8**	Warrant to Purchase 67,200 Shares of Common Stock issued to Lease Management Services, Inc., dated as of June 6, 1995; as amended by Amendment to Warrant to Purchase 67,200 Shares of Common Stock by and between the Registrant and Phoenixcor, Inc. (as successor in interest to Lease Management Services, Inc.), dated as of June 5, 2001.
4.9**	Warrant to Purchase 43,140 Shares of Common Stock issued to Lease Management Services, Inc., dated as of December 11, 1997; as amended by Amendment to Warrant to Purchase 43,140 Shares of Common Stock by and between the Registrant and General Electric Capital Corporation (as successor in interest to Lease Management Services, Inc.), dated as of December 9, 2003.
4.10**	Warrant to Purchase 4,000 Shares of Common Stock issued to Laurence S. Shushan and Magdalena Shushan, Trustees of The Laurence and Magdalena Shushan Family Trust, dated as of June 3, 1999.
4.11**	Warrant to Purchase 180,000 Shares of Common Stock issued to Slough Estates USA, Inc., dated as of June 3, 1999.
4.12**	Warrant to Purchase 11,076 Shares of Common Stock issued to Bristow Investments, L.P, dated as of February 8, 2000.
4.13**	Warrant to Purchase 2,769 Shares of Common Stock issued to Laurence S. Shushan and Magdalena Shushan, Trustees of The Laurence and Magdalena Shushan Family Trust, dated as of February 8, 2000.
4.14**	Warrant to Purchase 124,605 Shares of Common Stock issued to Slough Estates USA, Inc., dated as of February 8, 2000.
4.15**	Shareholders' Agreement by and among FibroGen China Anemia Holdings, Ltd. and certain of its shareholders, dated as of July 11, 2012.
4.16**	Share Purchase Agreement by and among FibroGen China Anemia Holdings, Ltd. and the purchasers party thereto, dated as of July 11, 2012.
5.1*	Opinion of Cooley LLP regarding legality.
10.1+**	FibroGen, Inc. Amended and Restated 1994 Stock Plan, and forms of agreement thereunder.
10.2(i)+**	FibroGen, Inc. Amended and Restated 1999 Stock Plan.
10.2(ii)+**	Form of incentive stock option agreement under the FibroGen, Inc. Amended and Restated 1999 Stock Plan.
10.2(iii)+**	Forms of 2010 and 2013 amendments to the form of incentive stock option agreement under the FibroGen, Inc. Amended and Restated 1999 Stock Plan applicable to options amended pursuant to the Registrant's 2010 amendment and exchange offer.
10.3(i)+**	FibroGen, Inc. Amended and Restated 2005 Stock Plan.
10.3(ii)+**	Forms of stock option agreement, restricted stock purchase agreement and stock appreciation right agreement under the FibroGen, Inc. Amended and Restated 2005 Stock Plan.
10.3(iii)+**	Form of stock option agreement under the FibroGen, Inc. Amended and Restated 2005 Stock Plan applicable to options exchanged pursuant to the Registrant's 2010 amendment and exchange offer.
10.3(iv)+**	Form of 2010 amendment to the form of stock option agreement under the FibroGen, Inc. Amended and Restated 2005 Stock Plan applicable to options amended pursuant to the Registrant's 2010 amendment and exchange offer.

Exhibit Number	Description of Document
10.3(v)+**	Form of 2013 amendment to the form of stock option agreement under the FibroGen, Inc. Amended and Restated 2005 Stock Plan applicable to options amended or exchanged pursuant to the Registrant's 2010 amendment and exchange offer.
10.4+*	FibroGen, Inc. 2014 Equity Incentive Plan, and forms of agreement thereunder, to be in effect upon completion of this offering.
10.5+*	FibroGen, Inc. 2014 Employee Stock Purchase Plan, to be in effect upon completion of this offering.
10.6+*	FibroGen, Inc. 2014 Director Compensation Plan.
10.7+*	FibroGen,Inc. 2014 Employee Compensation and Bonus Plan.
10.8**	Lease Agreement by and between the Registrant and X-4 Dolphin LLC, dated as of September 22, 2006; as amended by First Amendment to Lease by and between the Registrant and X-4 Dolphin LLC, dated as of October 10, 2007; as amended by Second Amendment to Lease by and between the Registrant and X-4 Dolphin LLC, dated as of June 29, 2009; as amended by Third Amendment to Lease by and between the Registrant and Are-San Francisco No. 43, LLC (as successor in interest to X-4 Dolphin LLC), dated as of May 19, 2011; as amended by Fourth Amendment to Lease by and between the Registrant and Are-San Francisco No. 43, LLC, dated as of September 8, 2011.
10.9**	Lease for Premises in Beijing BDA Biomedical Park by and among Beijing FibroGen Medical Technology Development Co., Ltd., Beijing Economic and Technology Investment Development Parent Company and Beijing BDA International Biological Pharmaceutical Investment Management Co., Ltd., effective as of February 1, 2013, as supplemented by the Supplementary Agreement to Lease of Premises in Beijing BDA Biomedical Park by and among Beijing FibroGen Medical Technology Development Co., Ltd., Beijing Economic Technology Investment Development Parent Company and Beijing BDA International Biological Pharmaceutical Investment Management Co., Ltd., dated as of January 30, 2013.
10.10+**	Form of Employment Offer Letter.
10.11†	Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of June 1, 2005.
10.12†	Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of April 28, 2006.
10.13†	Amendment to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of August 31, 2006.
10.14	Amendment No. 2 to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of December 1, 2006.
10.15†	Supplement to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of April 28, 2006.
10.16†	Amendment No. 3 to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., dated as of May 10, 2012.
10.17†*	License, Development and Commercialization Agreement (China) by and among FibroGen China Anemia Holdings, Ltd., Beijing FibroGen Medical Technology Development Co., Ltd., FibroGen International (Hong Kong) Limited and AstraZeneca AB, dated as of July 30, 2013.
10.18†*	License, Development and Commercialization Agreement by and between Registrant and AstraZeneca AB, dated as of July 30, 2013.
10.19†**	License Agreement by and between the Registrant and the University of Miami and its School of Medicine, dated as of May 23, 1997.

Exhibit Number	Description of Document
10.20†**	First Amendment to May 23, 1997 License Agreement by and between the Registrant and University of Miami, effective as of July 29, 1999.
10.21**	Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of July 9, 1998.
10.22**	Amendment No. 1 to Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of June 30, 2001.
10.23†**	Amendment No. 2 to Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of January 28, 2002.
10.24†**	License Agreement by and between the Registrant and the Dana-Farber Cancer Institute, Inc., effective as of March 29, 2006.
10.25**	Amendment No. 1 to License agreement by and between the Registrant and Dana-Farber Cancer Institute, Inc., effective as of February 28, 2006.
10.26**	Amendment No. 2 to License Agreement by and between the Registrant and Dana-Farber Cancer Institute, Inc., effective as of March 14, 2006.
10.27+*	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.28(i)†	Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 29, 2007.
10.28(ii)†	Letter Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of June 26, 2008.
10.28(iii)†	Letter Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of August 18, 2008.
10.28(iv)†	Amendment No. 1 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of May 28, 2009.
10.28(v)†	Amendment No. 3 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 5, 2010.
10.28(vi)†	Amendment No. 4 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of January 24, 2011.
10.28(vii)†	Amendment No. 5 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of April 15, 2011.
10.28(viii)†	Amendment No. 6 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of May 26, 2011.
10.28(ix)†	Amendment No. 7 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of January 1, 2012.
10.28(x)†	Amendment No. 8 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of July 10, 2012.
10.28(xi)†	Amendment No. 9 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 26, 2012.

Exhibit Number	Description of Document
10.28(xii)†	Amendment No. 10 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of June 21, 2013.
10.28(xiii)†	Amendment No. 11 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of July 9, 2013.
10.28(xiv)†	Amendment No. 12 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of August 1, 2013.
10.28(xv)†	Amendment No. 13 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of March 6, 2014.
10.28(xvi)†	Amendment No. 14 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of February 5, 2014.
10.29+**	Offer Letter, by and between the Registrant and Frank Valone, dated as of November 3, 2008.
10.30+**	Offer Letter, by and between the Registrant and K. Peony Yu, dated as of November 21, 2008.
10.31+**	Offer Letter, by and between the Registrant and Pat Cotroneo, dated as of October 23, 2000.
21.1**	Subsidiaries of the Registrant.
23.1*	Consent of PricewaterhouseCoopers LLP.
23.2*	Consent of Cooley LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included in signature pages).

* To be filed by Amendment.
** Previously submitted.
† Confidential Treatment Requested.
\+ Indicates a management contract or compensatory plan.

(b) Financial Statement Schedules.

See index to Consolidated Financial Statements on page F-1. All other schedules have been omitted because they are not required or are not applicable.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the 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 and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Francisco, State of California on the day of , 2014.

FIBROGEN, INC.

By: _____
Name: Thomas B. Neff
Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose individual signature appears below constitutes and appoints Thomas B. Neff and Pat Cotroneo, and each of them, as his true and lawful attorneys-in-fact and agents, each with the full power of substitution and resubstitution and full power to act without the other, for him and in his name, place or stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act of 1933, as amended, and all post-effective amendments thereto, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
_____ **Thomas B. Neff**	Chief Executive Officer and Chairman of the Board *(Principal Executive Officer)*	, 2014
_____ **Pat Cotroneo**	Vice President, Finance, and Chief Financial Officer *(Principal Financial and Accounting Officer)*	, 2014
_____ **Thomas F. Kearns Jr.**	Director	, 2014
_____ **Kalevi Kurkijärvi, Ph.D.**	Director	, 2014
_____ **Miguel Madero**	Director	, 2014
_____ **Rory B. Riggs**	Director	, 2014

Signature	Title	Date
Roberto Pedro Rosenkranz, Ph.D. M.B.A	Director	, 2014
Jorma Routti, Ph.D.	Director	, 2014
James A. Schoeneck	Director	, 2014
Julian N. Stern	Director	, 2014
Toshinari Tamura, Ph.D.	Director	, 2014

EXHIBIT INDEX

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4.3**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of February 20, 1998.
4.4**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of May 12, 2000, as amended in December 2004 and September 2005.
4.5**	Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated as of December 22, 2004, as amended in September 2005.
4.6**	Investor Rights Agreement by and among the Registrant and certain of its warrant holders, dated as of June 3, 1999.
4.7**	Investor Rights Agreement by and among the Registrant and certain of its warrant holders, dated as of February 8, 2000.
4.8**	Warrant to Purchase 67,200 Shares of Common Stock issued to Lease Management Services, Inc., dated as of June 6, 1995; as amended by Amendment to Warrant to Purchase 67,200 Shares of Common Stock by and between the Registrant and Phoenixcor, Inc. (as successor in interest to Lease Management Services, Inc.), dated as of June 5, 2001.
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4.10**	Warrant to Purchase 4,000 Shares of Common Stock issued to Laurence S. Shushan and Magdalena Shushan, Trustees of The Laurence and Magdalena Shushan Family Trust, dated as of June 3, 1999.
4.11**	Warrant to Purchase 180,000 Shares of Common Stock issued to Slough Estates USA, Inc., dated as of June 3, 1999.
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4.14**	Warrant to Purchase 124,605 Shares of Common Stock issued to Slough Estates USA, Inc., dated as of February 8, 2000.
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Exhibit Number	Description of Document
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5.1*	Opinion of Cooley LLP regarding legality.
10.1+**	FibroGen, Inc. Amended and Restated 1994 Stock Plan, and forms of agreement thereunder.
10.2(i)+**	FibroGen, Inc. Amended and Restated 1999 Stock Plan.
10.2(ii)+**	Form of incentive stock option agreement under the FibroGen, Inc. Amended and Restated 1999 Stock Plan.
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10.4+*	FibroGen, Inc. 2014 Equity Incentive Plan, and forms of agreement thereunder, to be in effect upon completion of this offering.
10.5+*	FibroGen, Inc. 2014 Employee Stock Purchase Plan, to be in effect upon completion of this offering.
10.6+*	FibroGen, Inc. 2014 Director Compensation Plan.
10.7+*	FibroGen,Inc. 2014 Employee Compensation and Bonus Plan.
10.8**	Lease Agreement by and between the Registrant and X-4 Dolphin LLC, dated as of September 22, 2006; as amended by First Amendment to Lease by and between the Registrant and X-4 Dolphin LLC, dated as of October 10, 2007; as amended by Second Amendment to Lease by and between the Registrant and X-4 Dolphin LLC, dated as of June 29, 2009; as amended by Third Amendment to Lease by and between the Registrant and Are-San Francisco No. 43, LLC (as successor in interest to X-4 Dolphin LLC), dated as of May 19, 2011; as amended by Fourth Amendment to Lease by and between the Registrant and Are-San Francisco No. 43, LLC, dated as of September 8, 2011.
10.9**	Lease for Premises in Beijing BDA Biomedical Park by and among Beijing FibroGen Medical Technology Development Co., Ltd., Beijing Economic and Technology Investment Development Parent Company and Beijing BDA International Biological Pharmaceutical Investment Management Co., Ltd., effective as of February 1, 2013, as supplemented by the Supplementary Agreement to Lease of Premises in Beijing BDA Biomedical Park by and among Beijing FibroGen Medical Technology Development Co., Ltd., Beijing Economic Technology Investment Development Parent Company and Beijing BDA International Biological Pharmaceutical Investment Management Co., Ltd., dated as of January 30, 2013.
10.10+**	Form of Employment Offer Letter.

Exhibit Number	Description of Document
10.11†	Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of June 1, 2005.
10.12†	Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of April 28, 2006.
10.13†	Amendment to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of August 31, 2006.
10.14	Amendment No. 2 to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of December 1, 2006.
10.15†	Supplement to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., effective as of April 28, 2006.
10.16†	Amendment No. 3 to Anemia License and Collaboration Agreement, by and between the Registrant and Astellas Pharma Inc., dated as of May 10, 2012.
10.17†*	License, Development and Commercialization Agreement (China) by and among FibroGen China Anemia Holdings, Ltd., Beijing FibroGen Medical Technology Development Co., Ltd., FibroGen International (Hong Kong) Limited and AstraZeneca AB, dated as of July 30, 2013.
10.18†*	License, Development and Commercialization Agreement by and between Registrant and AstraZeneca AB, dated as of July 30, 2013.
10.19†**	License Agreement by and between the Registrant and the University of Miami and its School of Medicine, dated as of May 23, 1997.
10.20†**	First Amendment to May 23, 1997 License Agreement by and between the Registrant and University of Miami, effective as of July 29, 1999.
10.21**	Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of July 9, 1998.
10.22**	Amendment No. 1 to Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of June 30, 2001.
10.23†**	Amendment No. 2 to Research and Commercialization Agreement by and among the Registrant, GenPharm International Inc., Medarex, Inc. and FibroPharma, Inc., effective as of January 28, 2002.
10.24†**	License Agreement by and between the Registrant and the Dana-Farber Cancer Institute, Inc., effective as of March 29, 2006.
10.25**	Amendment No. 1 to License agreement by and between the Registrant and Dana-Farber Cancer Institute, Inc., effective as of February 28, 2006.
10.26**	Amendment No. 2 to License Agreement by and between the Registrant and Dana-Farber Cancer Institute, Inc., effective as of March 14, 2006.
10.27+*	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.28(i)†	Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 29, 2007.
10.28(ii)†	Letter Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of June 26, 2008.
10.28(iii)†	Letter Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of August 18, 2008.

Exhibit Number	Description of Document
10.28(iv)†	Amendment No. 1 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of May 28, 2009.
10.28(v)†	Amendment No. 3 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 5, 2010.
10.28(vi)†	Amendment No. 4 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of January 24, 2011.
10.28(vii)†	Amendment No. 5 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of April 15, 2011.
10.28(viii)†	Amendment No. 6 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of May 26, 2011.
10.28(ix)†	Amendment No. 7 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of January 1, 2012.
10.28(x)†	Amendment No. 8 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of July 10, 2012.
10.28(xi)†	Amendment No. 9 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of November 26, 2012.
10.28(xii)†	Amendment No. 10 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of June 21, 2013.
10.28(xiii)†	Amendment No. 11 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of July 9, 2013.
10.28(xiv)†	Amendment No. 12 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of August 1, 2013.
10.28(xv)†	Amendment No. 13 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of March 6, 2014.
10.28(xvi)†	Amendment No. 14 to the Process Development and Clinical Supply Agreement by and between the Registrant and Boehringer Ingelheim Pharma GmbH & Co. KG, effective as of February 5, 2014.
10.29+**	Offer Letter, by and between the Registrant and Frank Valone, dated as of November 3, 2008.
10.30+**	Offer Letter, by and between the Registrant and K. Peony Yu, dated as of November 21, 2008.
10.31+**	Offer Letter, by and between the Registrant and Pat Cotroneo, dated as of October 23, 2000.

Exhibit Number	Description of Document
21.1**	Subsidiaries of the Registrant.
23.1*	Consent of PricewaterhouseCoopers LLP.
23.2*	Consent of Cooley LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included in signature pages).

* To be filed by Amendment.
** Previously submitted.
† Confidential Treatment Requested.
+ Indicates a management contract or compensatory plan.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.11

COLLABORATION AGREEMENT

BY AND BETWEEN

ASTELLAS PHARMA INC.

AND

FIBROGEN, INC.

June 1, 2005

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COLLABORATION AGREEMENT

This COLLABORATION AGREEMENT ("Agreement"), effective as of June 1, 2005 (the "Effective Date"), is made by and between FibroGen, Inc., a Delaware corporation having offices at 225 Gateway Boulevard, South San Francisco, California 94080 ("FG" or "FibroGen"), and Astellas Pharma Inc., a Japanese corporation having offices at 3-11 Nihonbashi-Honcho, 2-Chome, Chuo-ku, Tokyo, 103-8411 Japan ("Astellas").

BACKGROUND

A. FG has a research and development program focused on the development of small molecule prolyl hydroxylase inhibitors which stabilize hypoxia inducible factor ("HIF"), for the treatment of anemia.

B. Astellas desires to collaborate with FG on the development and commercialization of, and license the rights to use as therapeutics, certain small molecule prolyl hydroxylase inhibitors on the terms and conditions set forth below for use in the Astellas Territory (as defined below).

NOW THEREFORE, for and in consideration of the covenants, conditions, and undertakings hereinafter set forth, it is agreed by and between the parties as follows:

ARTICLE 1
DEFINITIONS

1.1 "Actions" shall have the meaning as set forth in Section 14.3 below.

1.2 "Affiliate" shall mean any entity which controls, is controlled by or is under common control with Astellas or FG. For purposes of this definition only, "control" shall mean beneficial ownership (direct or indirect) of at least fifty percent (50%) of the shares of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority).

1.3 "Astellas Indemnitees" shall have the meaning as set forth in Section 17.3 below.

1.4 "Astellas Territory" shall mean the country of Japan.

1.5 "Authorized Designee" shall mean an officer of FG or Astellas, as the case may be, designated by the Chief Executive Officer of the respective corporation, that has been granted full authority to resolve a dispute arising between FG and Astellas as required under Section 2.4 or Section 19.1 hereof.

1.6 "Bridging Strategy" shall mean the decision by Astellas to file an MAA in the Astellas Territory by submitting the data from the Phase III clinical trial of FG or its Affiliate or Sublicensee.

1.7 "Bulk Product" shall mean a Lead Compound supplied by FG to Astellas as a bulk formulated drug (such as in a form, including, but not limited, to a capsule, tablet or caplet formulation) without packaging.

1.8 "Commercialize" shall mean directly or indirectly develop, manufacture, sell, market or distribute.

1.9 "Completion" shall be deemed to occur, with respect to a particular clinical trial for a Lead Compound, upon clinical database lock for such trial.

1.10 "Confidential Information" shall have the meaning as set forth in Section 16.1 below.

1.11 "Control" or "Controlled" shall mean possession of the ability to grant a license or sublicense as provided for herein without violating the terms of an agreement with a third party.

1.12 "Controlling Party" shall have the meaning as set forth in Section 14.3 below.

1.13 "Data" shall have the meaning as set forth in Section 7.1 below.

1.14 "Delivery" or "Delivered" shall mean when Lead Compound is made available by FG to Astellas at the Ex Works location.

1.15 "Development Plan" shall mean the plan for the Development Program in effect from time to time, as established in accordance with Article 3 below.

1.16 "Development Program" shall mean all Astellas activities with respect to the development and commercialization of Lead Compounds for applications within the Field in the Astellas Territory, in accordance with the Development Plan in effect at that time.

1.17 "Enforcement Action" shall have the meaning as set forth in Section 14.4 below.

1.18 "Event" shall have the meaning as set forth in Article 6 below.

1.19 "Expanded Field" shall mean the treatment of any indications in which therapeutic utility is derived from **[*]**, including, without limitation, **[*]**. The Expanded Field shall not include the Field.

1.20 "Expenses" shall have the meaning as set forth in Section 14.3 below.

1.21 "FDA" shall mean the U.S. Food and Drug Administration, or any successor agency.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

1.22 "FG Acquired Patents" shall mean those FG Patents that are in-licensed or otherwise acquired by FG.

1.23 "FG Development Program" shall mean those activities by or on behalf of FG directly related to the development and commercialization of Lead Compounds for applications within the Field in the FG Territory that are directly useful or necessary for Commercialization in the Astellas Territory.

1.24 "FG Indemnitees" shall have the meaning as set forth in Section 17.2 below.

1.25 "FG Technology" shall mean FG Patents and FG Technical Information.

1.26 "FG Patents" shall mean all patents including all reissues, renewals, re-examinations and extensions thereof, and any patent applications therefor, including all divisionals or continuations, in whole or in part, thereof, which claim or otherwise cover the composition, manufacture, sale or use of a Lead Compound and that are Controlled by FG or its Affiliates during the term of this Agreement, subject to Section 14.5.1. For purposes of this definition, a patent or patent application shall be deemed to "cover" a Lead Compound if the manufacture, use or sale of such Lead Compound would, but for the license granted herein, infringe, contributorily infringe or constitute inducement to infringement of such patent or patent application, if issued or granted as pending. All patents and patent applications listed on Exhibit A, as revised from time to time to remove patents and/or patent applications by mutual agreement or to add patents and/or patent applications by FG, shall be within the scope of definition of the FG Patents, provided, however, that in the event FG designates any additional Lead Compounds, FG shall add to the list on Exhibit A patents and patent applications which claim or otherwise cover the composition, or manufacture, sale or use of the additional Lead Compounds within the Field and the Astellas Territory, and upon the cessation of the designation as any compound as Lead Compound and Astellas' cessation of development of such Lead Compound, FG shall remove at its sole discretion the related patent or patent application from Exhibit A.

1.27 "FG Technical Information" shall mean confidential information, tangible and intangible, and materials, including, but not limited to: trade secrets and know how, pharmaceutical, chemical, biological and biochemical compositions; and technical and non-technical data and information, and/or the results of tests, assays, methods and processes; and plans, specifications and/or other documents containing said information and data; in each case that is possessed by FG as of the Effective Date or discovered, developed or Controlled by FG or its Affiliates during the term of this Agreement, to the extent such relates to the development, manufacture, sale or use of a Lead Compound subject to Section 14.5.1, and such information related to a candidate for use as a Lead Compound provided by FG to Astellas in connection with the Lead Compound selection decision consultation process described in Section 4.3.

1.28 "FG Territory" shall mean all areas of the world outside of the Astellas Territory.

1.29 "Field" shall mean the treatment of anemia solely in the Indications, by means of the stabilization of HIF causing the stimulation of erythropoiesis (including an increase in endogenous erythropoietin production) and/or a subsequent increase in hematocrit through modulation of prolyl hydroxylase and/or asparaginyl hydroxylase. For purposes of clarity, FG and Astellas agree and acknowledge that the Field and the Indications exclude **[*]**.

1.30 "First Commercial Sale" shall mean, with respect to each Lead Compound, the first bona fide commercial sale of such Lead Compound to a non-Affiliate third party by or under authority of Astellas or FG, or their Affiliates or Sublicensees, as the case may be, in the FG Territory or the Astellas Territory, respectively.

1.31 "Force Majeure Event" shall mean the occurrence of any event causing a failure to perform where failure to perform is beyond the reasonable control of the non-performing party, as described in Section 20.3.

1.32 "Fully Burdened Costs" with respect to a Lead Compound shall mean all costs to produce, package and distribute the product to Astellas or its carrier at the Ex Works location (in compliance with Section 12.6) and any royalties or other consideration (not reimbursed by Astellas) paid to third parties related to the acquisition or sale of product, with costs to produce and package the product to include the direct material, labor and indirect costs that are incurred by FG or its Affiliate(s) associated with the manufacture, filling, packaging, labeling, preparation of product for shipment and/or other preparation of such Lead Compound, as applicable, including, but not limited to taxes, fees, and customs incurred, as applicable. Costs will be determined in accordance with U.S. Generally Accepted Accounting Principles (U.S. GAAP) and will include but not be limited to the costs of facilities, labor, purchasing, depreciation of equipment, materials, payments to third parties for any necessary contract work related to the manufacture or testing of the product, the validation studies, quality assurance, quality control and other testing, storage, shipping (if requested by Astellas), costs related to distribution and a reasonable allocation of general and administrative overhead. Costs related to distribution include the labor, materials and overhead necessary to prepare and package the final product for shipment to the Ex Works location.

1.33 "Future Third Party Intellectual Property" shall mean any intellectual property rights, including without limitation all patents, trademarks, or copyrights, and any applications therefor, including any applications for registration, issuance, or grant thereof, owned or Controlled by a third party that are necessary for the practice of the license granted hereunder that were not owned or Controlled by FG as of the Effective Date and that do not qualify as Pre-existing Third Party Intellectual Property under Section 1.56.

1.34 "GMP Guidelines" shall mean then-current applicable Good Manufacturing Practices guidelines and regulations of the FDA.

1.35 "**[*]**" shall have the meaning as set forth in Section 1.36 below.

1.36 "**[*]** Percentage" shall be determined, for any Lead Compound, (i) by dividing (a) the **[*]**, which shall be defined as the difference between (x) the **[*]**, and (y) the **[*]**, by (b) the **[*]**; and (ii) multiplying the result of (i) above by 100.

1.37 "HIF" shall mean hypoxia inducible factor.

1.38 "IND" shall mean an Investigational New Drug application, as defined in the U.S. Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or comparable filing in a foreign jurisdiction, in each case with respect to a Lead Compound for use within the Field.

1.39 "Indemnitee" shall have the meaning as set forth in Section 17.4 below.

1.40 "Indemnitor" shall have the meaning as set forth in Section 17.4 below.

1.41 "Indications" shall mean those indications listed on Exhibit B and any other indications to be agreed upon hereafter between FG and Astellas, each of which shall be referred to as an Indication.

1.42 "Initial Development Plan" shall mean the Initial Development Plan as described in Section 3.2.1 hereof.

1.43 "Initiate" or Initiation" shall mean with respect to a particular clinical trial for a Lead Compound, the initial dosing of the first patient in such trial in accordance with the protocol therefor.

1.44 "Inspected Party" and "Inspecting Party" shall have the meanings as set forth in Section 10.5 below.

1.45 "Joint Development Committee" or "JDC" shall have the meaning as set forth in Section 2.1 below.

1.46 "Lead Compound" shall mean any compound Controlled by FG that is designated by FG as a lead compound for clinical development in an Indication in accordance with Section 4.3 for the duration of such designation. Any Lead Compound which receives a Marketing Approval in the Astellas Territory shall remain a Lead Compound for the duration of such Marketing Approval. As of the Effective Date, FG-2216 shall be deemed to be a Lead Compound.

1.47 "Listed Price" shall have the meaning as set forth in Section 9.2.

1.48 "Litigation Agreement" shall have the meaning as set forth in Section 14.4 below.

1.49 "Major Indication" shall have the meaning set forth in Section 11.3.1 below.

1.50 "Marketing Approval" shall mean, with respect to each Lead Compound, approval in the Astellas Territory by the Japanese Ministry of Health, Labour and Welfare, or in the FG Territory by U.S. or European regulatory authorities, as the case may be, to market such Lead Compound for an indication within the Field. It is understood that pricing or reimbursement approval shall constitute a part of the Marketing Approval. In any event, Marketing Approval shall be deemed to have occurred with respect to a Lead Compound no later than the date of the First Commercial Sale of such Lead Compound in the FG Territory or the Astellas Territory as the case may be, by or under authority of FG or Astellas respectively, or their Affiliate or Sublicensee, as the case may be, whether or not formal approval by the relevant health regulatory authority is required for the First Commercial Sale of such Lead Compound.

1.51 "Marketing Approval Application" or "MAA" shall mean, within the FG Territory, a New Drug Application or similar application as required under the U.S. Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder, or such similar filing in Europe, or a comparable filing for Marketing Approval in the Astellas Territory, in each case with respect to a Lead Compound for use within the Field.

1.52 "Net Sales" shall mean the gross amount billed or invoiced by Astellas, its Affiliates and its Sublicensees to unaffiliated third parties for the Lead Compound(s) in bona fide arm's length transaction, less the following deductions:

i) credits or allowances, if any, given or made on account of rejection or return of the Lead Compound(s);

ii) trade and quantity discounts actually allowed and taken in such amounts as are customary in the trade;

iii) duties, sales taxes, excise taxes, insurance and transportation charges actually paid; and

iv) charge back payments or rebates actually paid to wholesalers.

1.53 "Phase I" shall mean human clinical trials, the principal purpose of which is preliminary determination of safety in healthy individuals or patients as required in 21 C.F.R. §312.21, or similar clinical study in a country other than the United States, and for which there are no primary endpoints relating to efficacy included in the protocol.

1.54 "Phase II" shall mean human clinical trials, for which the primary endpoints include a determination of dose ranges and/or a preliminary determination of efficacy in patients with the Indication being studied as required in 21 C.F.R. §312.21, or similar clinical study in a country other than the United States.

1.55 "Phase III" shall mean human clinical trials, the principal purpose of which is to establish safety and efficacy of one or more particular doses in patients with the Indication being studied as required in 21 C.F.R. §312.21, or similar clinical study in a country

other than the United States. For purposes of this Section 1.55, and Sections 1.53 and 1.54 above, a particular trial that (i) is intended to overlap two phases of trials, (ii) combines the elements of two phases of trials, or (iii) is treated by the FDA or comparable foreign agency as two phases of trials, such as a Phase I/II trial or a Phase II/III trial, shall be deemed a trial of the later, as well as the earlier, phase (*i.e.*, a Phase II and a Phase III, respectively).

1.56 "Product Specification" shall mean, with respect to a Bulk Product, the written document describing, the testing procedures and results required to determine compliance with release specifications, including, and quality control testing procedures to be determined, and be amended from time to time, by mutual agreement of both parties. The release specifications of such Product Specifications shall be determined taking into account and shall be designed to meet the shelf life requirements of the Japanese Ministry of Health, Labor and Welfare for the Lead Compound, provided, that the Product Specifications shall not require compliance with such shelf life requirements.

1.57 "Preexisting Third Party Intellectual Property" shall mean any intellectual property rights, including without limitation all patents, trademarks, copyrights, and any applications therefor, including any applications for registration, issuance, or grant thereof, owned or Controlled by a third party that are necessary for the practice of the license granted hereunder and that the existence of which was discoverable or otherwise could have been known on or prior to the Effective Date and were not owned or Controlled by FG as of the Effective Date.

1.58 "Proof of Concept" shall mean for any Indication, a demonstration of correction of anemia in relevant patients in a human clinical study.

1.59 "Prosecution and Interference Activities" shall mean the preparation, filing, prosecution and maintenance of patent applications and patents and any continuing applications thereof, and any re-examinations, reissues, renewals and requests for patent term extensions therefor, and any U.S., international or foreign counterparts of any of the foregoing, together with the conduct of any interference, opposition or other similar proceeding pertaining to patent applications or patents.

1.60 "Protected Field" shall have the meaning as set forth in Section 14.1.

1.61 "Reference Materials" shall have the meaning as set forth in Section 12.12 below.

1.62 "Relevant Standards" shall have the meaning as set forth in Section 12.8 below.

1.63 "Sales Price" shall mean the price per unit obtained by dividing the Net Sales during the relevant calendar quarter by the number of units sold during the same period.

1.64 "Standard Materials" shall have the meaning as set forth in Section 12.12 below.

1.65 "Sublicensee" shall mean a third party to whom FG or Astellas has directly or indirectly granted the right in its respective territory to make, use and sell a Lead Compound or a third party to whom FG or Astellas has directly or indirectly granted the right to distribute a Lead Compound supplied by FG or Astellas (respectively). For purposes of this Agreement, FG and Astellas shall not be deemed Sublicensees of the other.

1.66 "Technical Product Failure" shall mean as a **[*]**, which is not attributed to Astellas' failure to fulfill its obligations hereunder.

1.67 "Third Party Agreements" shall mean collectively those agreements between FG and a third party existing as of the Effective Date, pursuant to which FG obtained rights applicable to the development, manufacture, sale or use of Lead Compounds hereunder (but excluding options or similar agreements to acquire such rights). If, after the Effective Date, FG enters into an agreement to license or acquire rights from a third party with respect to subject matter to be utilized in connection with Lead Compounds in accordance with Section 14.5 below, such agreements shall also be deemed Third Party Agreements for purposes of this Agreement.

1.68 "Third Party Licensor" shall have the meaning as set forth in Section 14.5.1 below.

ARTICLE 2
JOINT DEVELOPMENT COMMITTEE

2.1 Joint Development Committee. Astellas and FG shall establish a joint development committee to oversee, review and coordinate the research and development of Lead Compounds for applications within the Field pursuant to the Development Program ("Joint Development Committee" or "JDC"). From time to time, the JDC may establish subcommittees or project teams to oversee particular projects or activities, and such subcommittees or project teams will be constituted as the JDC agrees (*e.g.*, for oversight of the development or other day-to-day matters).

2.2 Membership. The JDC shall be comprised of an equal number of representatives from each of Astellas and FG, selected by such party. The exact number of such representatives shall be **[*]** for each of Astellas and FG, or such other number as the parties may agree. Subject to the foregoing provisions of this Section 2.2, FG and Astellas may replace its respective JDC representatives at any time, upon prior written notice to the other party.

2.3 JDC Meetings. The JDC shall meet no fewer than **[*]** times each calendar year, or as otherwise agreed by the parties, with the understanding that **[*]** meetings are to be held at mutually agreed locations alternating among Japan, California, Hawaii, or at such other locations as the parties agree, and the other **[*]** meetings are to be held by means of telecommunication, videoconference or correspondence as deemed appropriate. The parties shall conduct team meetings at the same time and location as the JDC meetings. At its meetings, the JDC will, as applicable, (i) formulate and review the Development Program objectives, including approval of all proposed pre-clinical and clinical studies to be performed, (ii) monitor the progress of the Development Program toward those objectives, (iii) review and approve the

Development Plan, pursuant to Section 3.3 of this Agreement, including review, approve and monitor the progress of the clinical and regulatory plans, (iv) resolve issues surrounding the marketing of the Lead Compounds, (v) discuss the selection of Lead Compounds, (vi) coordinate manufacturing issues, including the development of standards, scheduling of batch production, and qualification with regulatory requirements for the Astellas Territory, (vii) resolve issues arising out of the Development Program or this Agreement, and (viii) undertake and/or approve such other matters as are specifically provided for the JDC under this Agreement. One meeting each year will be focused specifically on setting Development Program goals and strategy. Other representatives of FG or Astellas may attend JDC or subcommittee meetings as non-voting observers. Astellas' lead representative shall chair the meetings and shall be responsible for preparing the agenda and minutes for such meetings, and shall provide such minutes to FG in English. Such minutes as approved by the JDC shall constitute the official record of the actions of the JDC. The JDC may also convene or be polled or consulted from time to time by means of telecommunications, videoconferences or correspondence, as deemed necessary or appropriate. Each party shall bear its own personnel, travel and lodging expenses relating to JDC meetings.

2.4 Decisions. Decisions of the JDC shall be made by unanimous agreement of the members present in person or by other means (*e.g.*, teleconference) at any meeting; provided that at least two (2) representatives of each party is present at such meeting. In the event that the JDC is unable to reach unanimous agreement on an issue, the issue shall be referred for resolution in accordance with Article 19 hereof.

ARTICLE 3
DEVELOPMENT PLANS

3.1 General. Subject to Section 3.2 below, Astellas shall prepare and propose to the JDC a detailed Development Plan pursuant to which the Development Program will be performed. The Development Plan shall specify the objectives and work plan activities by Astellas with respect to the Development Program.

3.2 Annual Review

3.2.1 Initial Development Plan. The initial Development Plan is attached hereto as Exhibit C (the "Initial Development Plan"), and shall be fixed for the period from the Effective Date through March 31, 2006, unless otherwise agreed by the JDC.

3.2.2 Other. Beginning upon the date of signing of this Agreement and by December 31 of each year thereafter until expiration or termination of this Agreement, Astellas shall submit to the JDC the proposed plan required under Section 3.1 above for the following fiscal year, including for regulatory activities within the Astellas Territory. The JDC shall review such proposals as soon as possible and shall approve the Development Plan for such following fiscal year, with such changes as the JDC may agree to the plan proposed by Astellas, no later than March 15 of the current fiscal year.

3.3 Periodic Reviews. The JDC shall review the Development Plan on an ongoing basis and may make changes thereto including variances to the Development Plan in effect.

ARTICLE 4
DEVELOPMENT PROGRAM

4.1 Development Program for the Astellas Territory. Astellas shall follow FG's development activities for the Lead Compounds, (i.e., Astellas shall develop, and shall have the right and obligation to develop, only those compounds that FG has designated as Lead Compounds, for the duration of such designation and for which FG or its Sublicensee is pursuing clinical development in the FG Territory), for those Indications being developed by FG or its sublicensee, and such Astellas development shall comply with, without limitation the procedures set forth in Section 11.3.1. In fulfillment thereof, Astellas shall conduct, directly or through third parties, the Development Program for the Astellas Territory, all in accordance with the Development Plan then in effect, and shall be responsible for all costs related to the Astellas Territory. Astellas agrees to keep the JDC informed as to the progress of its activities under the Development Program for Lead Compounds hereunder. FG shall, subject to Section 4.2.2, provide reasonable assistance to Astellas regarding Astellas' performance of its development activities within the scope of the Development Program hereunder and provide updates to Astellas as to the FG Development Program. It is understood and agreed that the Development Program for the Astellas Territory shall include all clinical trials and other development activities necessary to obtain Marketing Approvals for Lead Compounds for the Astellas Territory.

4.2 Global Harmonization

4.2.1 Reporting; Redundant Activities. FG shall provide to Astellas regular reports with respect to the FG Development Program with respect to the Lead Compounds. Such reports may be provided at the JDC meetings provided for in Section 2.3. Recognizing that the Lead Compounds may be developed on a global basis and that regulatory and budget efficiencies can be achieved through the worldwide use of appropriate data and files, the parties will seek to design pre-clinical and clinical development activities included in the Development Plan in a manner to maximize global clinical and regulatory harmonization.

4.2.2 Additional Activities. Without limiting the obligations set forth in 4.2.1, the costs of any non-clinical or clinical developmental work, whether performed by Astellas or FG, to support needs specific to the Astellas Territory and not required to be performed for the FG Territory, or at the request of Astellas, shall be borne by Astellas.

4.3 Selection of Lead Compounds. FG shall consult with Astellas with respect to Lead Compound selection, and shall provide to Astellas information as reasonably necessary to evaluate Lead Compound candidates in connection with the Lead Compound selection process, including without limitation the information relating to patent situations in the Astellas Territory. For the avoidance of doubt, such Lead Compound candidates shall potentially include any and all compounds Controlled by FG during the term hereof for use in the Field. Notwithstanding anything contained in this Agreement, FG shall designate, at its sole discretion but in line with the basic policy that the same Lead Compound shall be Commercialized both in Astellas Territory and FG Territory for the same Indication(s), Lead Compound(s) in accordance with the terms of this Section 4.3, and shall notify the JDC of such designations. At any one time, FG may designate up to two (2) Lead Compounds for Commercialization in any Indication; provided, that in the event that FG designates two (2) Lead

Compounds for Commercialization in an Indication, it shall designate one (1) as the primary Lead Compound and one (1) as the secondary Lead Compound. In the event FG determines to cease development of a primary Lead Compound in an Indication, FG may designate the secondary Lead Compound as the primary Lead Compound for such Indication. In the event, prior to Marketing Approval in the Astellas Territory, FG determines to stop development of a Lead Compound, FG shall notify the JDC, and upon such notification, such compound shall no longer be considered a Lead Compound; provided, however, that Astellas may complete those development activities on-going at the time of such notification for such Lead Compound for a reasonable period of time, unless such notification is based on safety concerns. In the event FG determines to **[*]**, FG shall **[*]** within **[*]** days of such **[*]**. In the event that FG **[*]**, Astellas may, subject to the **[*]**, **[*]**, provided, however, that the **[*]** shall apply upon the **[*]** set forth in such Sections, rather than the **[*]**.

4.4 Regulatory Matters

4.4.1 Regulatory Filing. FG shall be responsible, directly or through third parties, for the preparation, filing and maintenance of all regulatory documents in the FG Territory with respect to the Lead Compound(s), which shall be filed in the name of FG or its designee. Astellas shall be responsible for all preparation, filing and maintenance of all regulatory documents in the Astellas Territory with respect to the Lead Compound(s), which shall be filed in the name of Astellas. Astellas shall select and own the trademark(s) to be used to identify any Lead Compound in the Astellas Territory.

4.4.2 Reporting Adverse Experiences

(a) With respect to adverse drug experiences relating to any Lead Compound, the parties shall promptly report such experiences to the appropriate regulatory authorities in the countries in which such Lead Compound is being developed or commercialized, in accordance with the appropriate laws and regulations of the relevant countries and authorities, and each party shall ensure that its Affiliates and Sublicensees comply with such reporting obligations. In addition, in order that each party may be fully informed of these experiences, each party shall report to the other party all “adverse events” involving such Lead Compound. “Serious adverse events” for all fatal and life-threatening adverse events shall be reported to the designated safety contact person of the other party by e-mail within five (5) calendar days of a party’s and/or its agent’s becoming aware of such an event (a “reporting party”), and all other serious adverse events shall be forwarded to the other party within seven (7) calendar days of the reporting party’s and/or its agent’s becoming aware of such an event. To the extent legally possible, FG and Astellas shall report to the other all serious adverse events with respect to a Lead Compound in the Field at least twenty-four (24) hours prior to reporting the same to a regulatory authority, and shall report adverse events which may constitute a dose limiting toxicity in a reasonably prompt time after the occurrence of such event. The reporting party shall report all non-serious adverse events on a monthly basis; provided that, non-serious adverse event data arising from a clinical trial will be included in the clinical trial report which

shall be prepared and sent to the other party as soon as practicable following completion of the final clinical report.

(b) An “adverse event” is any negative symptom experienced at the time of or after the taking of a medicinal (investigational) product, whether or not considered a medicinal (investigational) product related, including any side effects, injury, toxicity or sensitivity reaction, or significant failure of expected pharmacological action. Also included are instances of symptomatic overdose, abuse or withdrawal reactions.

(c) A “serious adverse event” includes any of the following outcomes: death, a life-threatening event; that is, an adverse event that puts the patient at risk of dying, requires hospitalization, prolongs existing hospitalization or results in persistent or significant incapacity or disability, congenital anomaly/birth defect. Other important medical events that may otherwise jeopardize a patient or may require intervention to prevent one of the statuses of patients listed in the preceding sentence shall also be considered serious.

(d) The parties also agree to develop and implement such other procedures as may be necessary or appropriate to ensure that each party remains in compliance with all reporting requirements imposed by any regulatory authority in the Astellas Territory, and in the FG Territory. Upon the Initiation of Phase III, FG shall implement and be responsible for the maintenance of a complete global safety database. FG will be responsible for preparing, with Astellas’ cooperation set forth below in this Section 4.4.2(d), Periodic Safety Reports for clinical studies requested by European and U.S. authorities, and Periodic Safety Update Reports (PSURs). FG shall send a draft PSUR for review to Astellas in the beginning of week 5 after database lock point. Astellas has one week for review. FG shall provide copies of the final PSURs to Astellas in the same timing as they are submitted to the authorities. Astellas will provide FG with the data needed for making the PSURs. Maintenance of Company Core Safety Information (CCSI) is under the responsibility of FG who will communicate all revisions to Astellas. FG shall prepare the periodic safety reports for clinical studies requested by European and U.S. authorities and provide Astellas with the copy of such reports at the time of submission to the regulatory authorities in the FG Territory. Astellas will provide FG with the data needed for making such periodic safety reports.

(e) Each party shall immediately inform the other party of measures taken in order not to jeopardize public health or hygiene including but not limited to, discontinuation of manufacture, import and marketing, clinical trial suspension, recall and disposal of the Lead Compound or the product or the prescription product, irrespective of whether it is due to regulatory actions or voluntary actions.

(f) Both parties hereby nominate the safety contact persons as follows:

Medical Affairs Department
FibroGen, Inc.
225 Gateway Boulevard
San Francisco, California 94080
Attn: Vice President, Medical Affairs
Tel: 1-650-866-7875
Fax: 1-650-866-7360
E-mail:dyeowell@fibrogen.com

With a copy to:
Chief Executive Officer
FibroGen, Inc.
225 Gateway Boulevard
San Francisco, California 94080
Tel: 1-650-866-7200
Fax: 1-650-866-7201
E-mail:tneff@fibrogen.com
Pharmacovigilance Department, QA, RA, and
Pharmacovigilance Division
Astellas Pharma Inc.
[*]

The safety contact persons for each party hereto may be updated from time to time as necessary upon notice to the other party.

ARTICLE 5
RECORDKEEPING; PUBLICATION

5.1 Reports and Records. Each of Astellas and FG shall use best efforts to maintain (or cause such records to be maintained) records of the Development Program and FG Development Program, respectively, in sufficient detail and in good scientific manner as will properly reflect all work done and results achieved in the performance of the Development Program or FG Development Program, as the case may be. Upon **[*]** days advance notice or such shorter time period as may be required in order to meet any regulatory requirements, each party shall allow the other party to have access to all records, materials and data generated by or on behalf of such party with respect to each Lead Compound for applications within the Field at reasonable times, in a reasonable manner and, upon request, to the extent required under Article 7 hereof.

5.1.1 Retention. Each of Astellas and FG shall retain its records for the minimum period of time required by applicable law in all cases, and for not less than **[*]** following the expiration or termination of this Agreement.

5.1.2 Reports. Not less than **[*]** prior to each JDC meeting under Section 2.3 above, each of Astellas and FG shall provide the JDC with a written report in English; Astellas' report summarizing the progress of the Development Program, including the developmental, clinical and other activities performed by Astellas, its Affiliates and/or Sublicensees with respect to each Lead Compound during the preceding period; and FG's report summarizing the progress of the FG Development Program.

5.1.3 Activities Outside the Field. The parties understand and acknowledge that FG is engaged in other research and development activities directed to prolyl hydroxylase inhibition and/or the stabilization of HIF, and that the focus of this collaboration and the Development Program is directed to the Field. Accordingly, it is understood that, notwithstanding any other provision of this Agreement, the obligations of FG specified herein to make available and disclose to Astellas data, technical information, scientific results and findings and other subject matter is limited in each case to subject matter directed to Lead Compounds within the Field.

5.2 Review of Publications. As soon as is practicable prior to the oral public disclosure, and prior to the submission to any outside person for publication of scientific data resulting from the Development Program, in each case to the extent the contents of the oral disclosure or publication have not been previously disclosed pursuant to this Section 5.2 before such proposed disclosure, FG or Astellas, as the case may be, shall provide to the other party a copy of the publication, or a written summary of any oral disclosure, to be made or submitted, and shall allow the other party at least **[*]**, to determine whether such disclosure or publication contains subject matter for which patent protection should be sought prior to publication or which either party believes should be modified to avoid disclosure of Confidential Information or regulatory or other issues. With respect to publications by investigators or other third parties of scientific data resulting from the Development Program, such disclosures and publications shall also be subject to review by the reviewing party under this Section 5.2.

5.2.1 Publication Rights. Subject to the provisions of Articles 7 and 16, after the expiration of **[*]** from the date of receipt of such disclosure or publication, unless the authoring party has received the written notice specified below, the authoring party shall be free to submit such publication or to orally disclose or publish the disclosed research results in any manner consistent with academic standards.

5.2.2 Disapproval of Publication. Prior to the expiration of the **[*]** period specified in Section 5.2.1 above, the reviewing party may notify in writing the submitting party of its determination that such oral presentation or publication contains Confidential Information of the reviewing party or objectionable material or material that consists of patentable subject matter of the reviewing party for which patent protection should be sought. In such event, and unless otherwise mutually agreed, the submitting party shall withhold publication of its disclosure.

ARTICLE 6
DEVELOPMENT PROGRAM FUNDING

6.1 Payments for Reimbursement; Net Payments. FG hereby acknowledges receipt of U.S. $**[*]** on February 13, 2004, U.S. $**[*]** on January 28, 2005, and U.S. $**[*]** on March 22, 2005 as initial payments for reimbursement of historical research and development expenditures for the Lead Compounds. Astellas agrees to pay to FG the amounts set forth in Section 6.1.1 below. The parties hereto acknowledge that the Development Program hereunder involves a high degree of risk and uncertainty; accordingly, both parties hereto expressly disclaim any implied warranty as to the results of the Development Program.

6.1.1 Reimbursement Payments. As reimbursement and payment for FG's historical research and development expenditures with respect to pre-clinical and clinical development of Lead Compounds, Astellas agrees to make the following non-refundable, non-creditable (except as set forth in Section 14.3 below) reimbursement payments to FG upon the first occurrence of each event specified below (each, an "Event"):

	EVENT	AMOUNT
1.	Upon **[*]**, provided, that U.S. $**[*]** million of such amount shall be paid no later than **[*]** irrespective of whether the **[*]** has occurred.	U.S. $**[*]**
2.	Upon each of **[*]**, for a total of U.S. $**[*]**	U.S. $**[*]**
3.	Upon **[*]** or in the event that Astellas chooses to utilize the Bridging Strategy, the payment shall be made concurrent with the payment required in paragraph 4 of this Section 6.1.1 below.	U.S. $**[*]**
4.	Upon the first **[*]**.	U.S. $**[*]**

6.1.2 Product Approval Payments. As reimbursement and payment for FG's historical and ongoing research and development expenditures with respect to pre-clinical and clinical development of Lead Compounds and as payment for the successful marketing and sales of Lead Compound(s), Astellas agrees to make the following non-refundable, non-creditable (except as set forth in Section 14.3 below) reimbursement payments to FG upon the first occurrence of each Event (other than paragraph 5 of this Section 6.1.2 below) specified below. Notwithstanding the foregoing, in the event that Astellas decides not to pursue Commercialization in **[*]** set forth in paragraph 3 or 4 of this Section 6.1.2, the milestone payment associated with the **[*]** set forth in paragraph 3

shall be due and payable upon the first **[*]** of either **[*]**, and the milestone payment associated with the **[*]** set forth in paragraph 4 shall be due and payable upon the second **[*]** for a **[*]**; and in the event Astellas decides to pursue only **[*]** set forth in paragraph 3 or 4 of this Section 6.1.2, and pursues Commercialization of either of the **[*]**, the milestone payment for associated with the **[*]** for the **[*]** shall be due and payable upon the first **[*]** for a **[*]**; and in the event that Astellas decides to pursue **[*]** set forth in paragraphs 3 and 4 of this Section 6.1.2 and also does not pursue **[*]**, the parties shall a **[*]** for which the milestone payments associated with the **[*]** set forth in paragraph(s) 3 and/or 4 of this Section 6.1.2, as the case may be, shall be due, as negotiated in good faith by the parties hereto.

	EVENT	AMOUNT
1.	Upon the first **[*]** for the **[*]**; provided, that in the event Astellas chooses the Bridging Strategy, such payment shall be increased by an additional U.S. $**[*]** for a total of U.S. $**[*]**	U.S. $**[*]**
2.	Upon the first **[*]** in the Astellas Territory for the **[*]**; provided, that in the event Astellas chooses the Bridging Strategy, such payment shall be increased by an additional U.S. $**[*]** for a total of U.S. $**[*]**.	U.S. $**[*]**
3.	Upon the first **[*]** in the Astellas Territory for the **[*]**; provided, that in the event Astellas chooses the Bridging Strategy, such payment shall be increased by an additional U.S. $**[*]** for a total of U.S. $**[*]**.	U.S. $**[*]**
4.	Upon the first **[*]** in the Astellas Territory for the first indication within **[*]** (see Exhibit B); provided, that in the event Astellas chooses the Bridging Strategy, such payment shall be increased by an additional U.S. $**[*]** for a total of U.S. $**[*]**.	U.S. $**[*]**

5.	Upon **[*]** in the Astellas Territory for each of up to **[*]** indications listed on Exhibit B, including separate indications within **[*]** up to a total of U.S. $**[*]**.	U.S. $**[*]**

6.1.3 Sales Success Payments. As reimbursement and payment for FG's historical and ongoing research and development expenditures with respect to pre-clinical and clinical development of Lead Compounds and as payment for the successful marketing and sales of the Lead Compound(s), Astellas agrees to make the following non-refundable, non-creditable (except as set forth in Section 14.3 below) reimbursement payments to FG upon the first occurrence of the Event specified below.

EVENT	AMOUNT
Upon receipt of **[*]** aggregate annual Net Sales achieved for the first time in the Astellas Territory for all indications and Lead Compounds by Astellas and its Affiliates and Sublicensees.	U.S. **[*]**

If at the occurrence of an Event (except for Event 2) as set forth in Section 6.1.1 above with respect to a particular Lead Compound the payment corresponding to the occurrence of any preceding Event (except for Event 2) (*i.e.*, "previous" as contemplated by the Event number sequence specified above) has not been made, then the corresponding payment(s) for such preceding Event (except for Event 2) shall then be due.

The payments set forth in Sections 6.1.1, 6.1.2 and 6.1.3 hereof shall each be due and payable within **[*]** after occurrence of the corresponding Event. Astellas agrees to promptly notify FG in writing of its achievement of any Event under Sections 6.1.1, 6.1.2 and 6.1.3.

ARTICLE 7
USE OF PRECLINICAL AND CLINICAL DATA

7.1 Exchange. Subject to the provisions of this Article 7 and Article 16 below, the parties shall have access to the underlying preclinical and clinical data (including raw data thereof), analysis, reports, protocols and correspondence (collectively with such filings, "Data"), at reasonable times, upon fifteen (15) days advance notice or such shorter notice as may be required in order to meet any regulatory requirements and (upon request) in English, (it being understood and agreed that Astellas shall provide in English without cost to FG summaries of all final reports and all documents necessary to comply with regulatory and legal requirements, and

shall provide all other documents in English with reasonable costs shared equally between the parties) of the other party in accordance with the following:

(a) FG shall have access to and the right to use for any purpose, any Data developed by or on behalf of Astellas or its Affiliates or Sublicensees in the course of the Development Program with respect to indications within the Field for Lead Compounds. Astellas shall obtain from such Sublicensees access to all Data prepared by or for such Sublicensee with respect to a Lead Compound, with the right to provide such Data and/or access to FG and its Sublicensees, and any sublicense failing to provide such obligation on the part of the Sublicensee shall be voidable at the option of FG.

(b) Astellas shall have access to and the right to use solely for the purpose of this Agreement, any Data developed by or on behalf of FG or its Affiliates or Sublicensees with respect to Lead Compounds in connection with the Field (i) to the extent necessary to support the application to the regulatory authority in the Astellas Territory or to fulfill other Japanese Ministry of Health, Labor and Welfare regulatory requirements, or (ii) if not necessary to support such application or to fulfill such Japanese Ministry of Health, Labor and Welfare regulatory requirements, to the extent FG is permitted subject to FG's third party obligations; provided that FG shall **[*]** negotiate the availability of such Data to Astellas from such Sublicensee, and provided, further, that Astellas agrees not to use or disclose to third parties any such data for purposes outside the Field except as authorized under this Agreement.

7.2 Disclosure. Subject to the provisions of this Section 7.2, FG and Astellas may each provide copies or summaries of Data to its Affiliates and/or its permitted Sublicensees to the extent reasonably necessary for the development and commercialization of Lead Compounds in accordance with this Agreement, or in the case of FG of products other than Lead Compounds. It is understood that the foregoing shall include the right to disclose Data to third parties with whom Astellas or FG are discussing entering into agreements for such permitted purposes, subject to reasonable conditions of confidentiality, provided, that Astellas may not disclose any Data to any third party competitor of FG within the Field worldwide without the prior written consent of FG.

7.3 Regulatory Requirements. Notwithstanding the provisions of Section 7.2, in all agreements with third parties or Affiliates involving the development of Data, FG and Astellas, respectively, shall require that such third parties and Affiliates provide the other party with all such Data, to the extent such Data is required in order for each party to meet its obligations to the other party under Section 4.4.2 above.

7.4 Review of Protocols. Astellas agrees that all final protocol summaries for all clinical trials and GLP toxicology studies to be conducted by or under authority of Astellas will be subject to the review and approval of the JDC, in accordance with the following procedures set forth in this Section 7.4. Astellas shall submit to FG and the JDC the original draft protocol summary in English for any clinical trial or GLP toxicology study it proposes to conduct, and such protocol summary shall be reviewed and approved by the JDC. The protocol summary shall contain all information as may be requested by the JDC. Upon Astellas' completion of the final protocol for the proposed clinical trial or GLP toxicology study, in the

event that such protocol deviates from the original protocol summary, Astellas shall resubmit to FG and the JDC for review and approval a revised, final protocol summary that indicates all changes from the original protocol summary. Notwithstanding the foregoing, FG reserves the right to request and Astellas shall provide any portion of full text of the protocols in English for review by the JDC, which portion is at issue. In the event FG requests such a full text protocol, it shall review and provide comments to the JDC as soon as practicable, and within five (5) business days of receipt.

ARTICLE 8
MARKETING RIGHTS

8.1 Astellas. Astellas shall have the exclusive right to market, sell and distribute the Lead Compounds supplied by FG for use in the Astellas Territory within the Field under the license granted in Article 13. Astellas may exercise its rights under this Section 8.1 through one or more Sublicensees; provided, that any such Sublicensee agrees to terms identical in all material respects to those contained in this Agreement, and, provided, further, that any arrangement between Astellas and an Astellas Sublicensee with respect to a Lead Compound shall be subject to the requirements of Section 13.2.

8.2 FibroGen. FG shall have the exclusive right, including the right to authorize others, to market, sell and distribute the Lead Compounds for any use in the FG Territory. Subject to the restrictions contained in Section 8.3.4 hereof, FG retains the exclusive right, including the right to authorize others, to market, sell and distribute worldwide the Lead Compounds for use outside the Field.

8.3 Covenants

8.3.1 General. It is understood that, with respect to any particular Lead Compound, whether or not the use and sale of such Lead Compound by FG and/or Astellas in any country requires a license under intellectual property rights of the other, neither FG nor Astellas shall market, sell or distribute a Lead Compound anywhere in the world except in accordance with this Agreement, including this Article 8.

8.3.2 Independent Activities by Astellas. During the term of this Agreement, in the event Astellas seeks to Commercialize any molecules for the Field or the Expanded Field, except for actions taken within the Field in the course of the exercise of the license granted under Section 13.1 hereof and expressly authorized under this Agreement, Astellas shall notify FG immediately upon the commencement of any such activities, and provided that **[*]** such activities are and will be in the future conducted completely independently of any of FG Technology and/or any other FG materials, confidential information, intellectual property or other related information provided by or on behalf of FG to Astellas under this Agreement or any other agreement between FG and Astellas relating to the subject matter hereof, Astellas may proceed with such Commercialization, subject at all times to the obligations contained in this Agreement with respect to any intellectual property in connection with or related to such activities and FG's right to terminate this Agreement pursuant to Section 18.2.1 hereof.

8.3.3 Use of FG Technology by Astellas. Astellas shall use the FG Technology only to exercise the rights granted under Section 13.1 of this Agreement and as expressly authorized under the Development Program, and shall not under any circumstances use or apply any FG Technology, including without limitation any FG know-how and/or any other FG materials, confidential information, intellectual property or other related information provided by FG to Astellas under this Agreement or any other agreement between FG and Astellas relating to the subject matter hereof, for any use outside the Field at any time or within the Field after the expiration or termination of this Agreement.

8.3.4 Activities Outside Field by Astellas. Without limiting the foregoing, Astellas agrees that during the term of this Agreement it will not (and will not authorize any third party, including, without limitation, any Affiliates or Sublicensees, to) (i) Commercialize any Lead Compound within the Field in the Astellas Territory, except a Lead Compound that has been designated a Lead Compound by the JDC and that has received Marketing Approval in the Astellas Territory for use in the Field, (ii) Commercialize any Lead Compound for use outside the Field or outside the Astellas Territory, (iii) provide any supplies of any Lead Compound to any third party, including, without limitation, any Affiliates or Sublicensees, which Astellas knows or has reason to know is being marketed, sold or distributed for use outside the Field or outside the Astellas Territory, (iv) conduct or sponsor, or provide any supplies of any Lead Compound for use in, any clinical trial designed to demonstrate that a Lead Compound can be used outside the Field, or (v) seek regulatory approval of, or use labeling for a Lead Compound stating that such Lead Compound is for use outside the Field.

8.3.5 Activities in Astellas Territory by FG During the term of this Agreement, FG shall not Commercialize by itself or through its Sublicensee any Lead Compound or other compound, whether or not designated as a Lead Compound, within the Field in the Astellas Territory, or any Lead Compound outside the Field in the Astellas Territory, provided, however, that FG may develop a Lead Compound or other compound in the Astellas Territory in those Indications for which Astellas has determined not to pursue Commercialization or for which Astellas has lost the right to pursue Commercialization due to failure to meet diligence obligations hereunder; and provided, further, that FG may Commercialize compounds other than Lead Compounds outside the Field in the Astellas Territory, irrespective of whether such compound has the effect of stabilizing HIF causing the stimulation of erythropoiesis (including an increase in endogenous erythropoietin production) and/or a subsequent increase in hematocrit through modulation of prolyl hydroxylase and/or asparaginyl hydroxylase.

ARTICLE 9
TRANSFER PRICING

9.1 Transfer for Non-Commercial Purpose. In exchange for the transfer of any Lead Compound to Astellas for a non-commercial purpose, Astellas shall pay FG the total amount of the Fully Burdened Costs for such Lead Compound as reasonably determined by FG. Lead Compound transferred to Astellas for a non-commercial purpose shall not be used for a commercial purpose.

9.2 Transfer for Commercial Purpose. For any Lead Compound transferred to Astellas to be used for any commercial purpose, in exchange for the transfer of such Lead Compound to Astellas, Astellas shall pay FG the amounts set forth in this Section 9.2. All transfers of Lead Compound for use following Marketing Approval shall be deemed transfers for a commercial purpose, except transfers under Section 9.2(c), and transfers for the purpose of conducting clinical trials, which shall be considered transfers for a non-commercial purpose.

(a) For any quantities of Lead Compound shipped by FG to Astellas prior to the issuance of the national health insurance price as determined by the Japanese Ministry of Health, Labour and Welfare (the "Listed Price"), Astellas shall pay for such quantities at a price equal to **[*]** of the estimate of the Listed Price as determined in good faith by FG and Astellas, subject to adjustment upon the issuance of the actual Listed Price. Upon the issuance of such Listed Price by the Japanese Ministry of Health, Labour and Welfare, Astellas shall pay to FG, or FG shall reimburse Astellas, as the case may be, the amount of any difference between the payment made for such Lead Compound at the estimated Listed Price and the payment required based upon the actual Listed Price.

(b) For all other transfers of Lead Compound, except as set forth in subparagraphs (c) or (d) below, Astellas shall pay for such quantities at a price equal to **[*]** of the Listed Price. In the event that a new Listed Price has been notified to Astellas by the Japanese Ministry of Health, Labour and Welfare before implementation of the new Listed Price, then such new Listed Price shall be used for calculation of the price of Lead Compound to be shipped on and after the later to occur of (i) **[*]** before implementation of the new Listed Price, and (ii) the date upon which Astellas has amended the price of Lead Compound to wholesalers in response to such notification by the Japanese Ministry of Health, Labour and Welfare, even before implementation of the new Listed Price.

(c) With respect to Lead Compound to be distributed as samples to medical providers and for which Astellas shall not receive any payment or other consideration, Astellas shall pay to FG the sum of its Fully Burdened Costs for amounts of Lead Compound shipped to Astellas; provided, however, that the parties shall mutually agree upon the amount of such samples for distribution without consideration in the Astellas Territory.

(d) Upon the later of (i) the initial retail sale of a generic equivalent (as defined by the Japanese Ministry of Health, Labour and Welfare) of such Lead Compound in the Territory, and (ii) and the expiration of the last to expire of the FG Patents with respect to such Lead Compound effectively precluding third parties from selling said generic equivalent, for any quantities shipped by FG to Astellas, Astellas shall pay FG for such quantities **[*]** of the Sales Price; provided, however, that in the event that the payment of the **[*]** of the Sales Price would result in FG's **[*]** Percentage falling below **[*]**, FG shall have the option to initiate a renegotiation of the transfer price upon notice to Astellas, in which case the parties shall use best efforts in good faith to renegotiate reasonable terms for the transfer price; provided, further, that in the event the transfer price is not renegotiated to FG's satisfaction or FG elects not to initiate a renegotiation, FG may elect to terminate its manufacturing obligations by written notice to Astellas, and FG and Astellas shall negotiate reasonable terms for transfer of manufacturing. During such period of renegotiation, FG shall transfer the Lead Compound to Astellas at a price

equal to the greater of **[*]** of the Sales Price and the price resulting if FG's **[*]** Percentage for such Lead Compound is equal to **[*]**.

9.3 Payment. Any payments to be made with respect to the transfer of any Lead Compound in accordance with Section 9.1 or 9.2 above shall be immediately due to FG upon shipment, which shall be paid by Astellas to FG no later than **[*]** of the date of invoice, which invoice FG shall deliver to Astellas upon Delivery of Lead Compound to Astellas pursuant to Section 9.2(a), (b) or (c), and shall be made in U.S. dollars. For transfer of any Lead Compound in accordance with Section 9.1 or 9.2(c) above, FG shall deliver to Astellas, within ten (10) days of receipt of a firm commitment order from Astellas, an invoice for the estimated Fully Burdened Costs of the Lead Compound to be transferred to Astellas. Within **[*]** after the transfer of the Lead Compound to Astellas, FG shall provide a revised final invoice to Astellas that shall indicate the actual Fully Burdened Costs of the Lead Compound. If the actual Fully Burdened Costs are less than the estimated Fully Burdened Costs, FG shall include a reimbursement payment to Astellas for the difference between the initial estimated Fully Burdened Costs and the actual Fully Burdened Costs. If the actual Fully Burdened Costs are greater than the estimated Fully Burdened Costs, Astellas shall pay such difference within **[*]** of receipt of an invoice from FG for such amounts. For payments for the transfer of Lead Compound under Section 9.2(d) hereof, FG's invoice to Astellas shall be calculated based on the current Listed Price as set by the Japanese Ministry of Health, Labour and Welfare. Upon calculation of the Sales Price, Astellas shall submit, for any amounts actually sold, the Sales Price to FG, and FG shall credit Astellas for the difference between the invoice cost, cost calculated based on the Listed Price and the cost calculated based on the Sales Price.

9.4 Reference Materials; Standard Materials. In exchange for the transfer by FG of any Reference Materials or Standard Materials for the purposes of conducting analytical, release, stability and other studies authorized under the Development Program, Astellas shall pay to FG, FG's Fully Burdened Costs of such materials as reasonably determined by FG.

ARTICLE 10
ADDITIONAL PAYMENTS; BOOKS AND RECORDS

10.1 Quarterly Reports. Astellas shall make quarterly reports to FG within sixty (60) days after the end of each calendar quarter (April 1 though June 30, July 1 through September 30, October 1 though December 31, January 1 through March 31), which reports shall include, (a) the Net Sales, unit shipments and other distributions, including samples, by Astellas, and its Affiliates and Sublicensees, in such calendar quarter and (b) such other information as may be reasonably requested by FG to ensure either proper payment by Astellas of amounts required under this Agreement or to calculate payments with respect to FG's Third Party Agreements. Concurrently with making such report, Astellas shall remit payment to FG for any payments due under this Agreement.

10.2 Payment Method. All payments under this Agreement shall be made by bank wire transfer in immediately available funds to an account designated by the payee. All

such payments made by or on behalf of Astellas hereunder shall be made by a Japanese entity. All dollar amounts specified in this Agreement, and, except as specifically authorized under Section 10.3 hereof, all payments made hereunder, are and shall be made in U.S. dollars. Any payments due under this Agreement which are not paid by the date such payments are due under this Agreement shall bear interest to the extent permitted by applicable law at the U.S. prime rate per annum quoted in the "Money Rates" column of The Wall Street Journal (U.S., Western Edition) on the first business day after such payment is due, plus an additional **[*]**, calculated on the number of days such payment is delinquent. This Section 10.2 shall in no way limit any other remedies available to either party.

10.3 Currency Conversion. In the event that the amount of an Astellas payment obligation in U.S. dollars must be determined by the calculation of an underlying amount received by Astellas in Japanese Yen utilizing the U.S. dollar-Japanese Yen exchange rate (i.e., a transfer payment under Section 9.2(a), (b) or (d) hereof), currency conversion from Japanese Yen to U.S. dollars shall be made using the closing exchange rate reported in the Wall Street Journal (U.S. Western Edition) for the date on which the Lead Compound is Delivered to Astellas. If any such payment is not made by the due date, the exchange rate utilized for determination of such payment obligation shall be the exchange rate **[*]** reported in the Wall Street Journal (U.S. Western Edition) during the period from the date of invoice through the due date, not including any additional amounts owed under Section 10.2 hereof.

10.4 Taxes

10.4.1 Generally. Each party shall bear and, except as otherwise expressly provided in this Section 10.4, pay any and all taxes, duties, levies, and other similar charges (and any related interest and penalties), however designated, imposed on that party as a result of the existence or operation of this Agreement. If laws or regulations require that taxes be withheld, the paying party will (i) timely pay the taxes to the proper taxing authority, and (ii) send proof of payment to the other party within **[*]** following that payment.

10.4.2 Certain Payments. Notwithstanding Section 10.4.1, all payments by Astellas required under this Agreement above, including under Section 6.1.1 are expressed as net amounts and shall be made free and clear of, and without reduction for, any withholding taxes, provided, however, that in the event that any withholding taxes are due on the payments Astellas shall make to FG under Sections 6.1.2 and 6.1.3, Astellas shall make such payments directly to the Japanese Tax Authority and shall be entitled to reduce the amount paid to FG by **[*]** of the amount of the withholding taxes paid to Japanese Tax Authority in respect of such payment, unless the amount of such withholding taxes is reduced by a decision of the Japanese tax authority, or is subsequently adjusted downward as result of appeal, in which event the next payment due hereunder, including, without limitation, a transfer payment or a payment upon termination, shall be increased by such amount. Any such taxes which are otherwise imposed on payments to FG shall be the sole responsibility of Astellas. Astellas shall provide FG with official receipts issued by the appropriate taxing authority or such other evidence as is reasonably requested by FG to establish that such taxes have been paid. Astellas and FG shall cooperate to minimize the withholding taxes due on the amounts payable by Astellas to FG hereunder to the extent permissible under law, including, but not limited to,

making appropriate application(s) to the tax authorities within the Astellas Territory. If possible, FG shall use its reasonable efforts to apply for the tax refund from U.S. tax authorities for the withholding taxes paid to the Japanese Tax Authority on the payment U.S. $**[*]** payment made by Astellas to FG on January 13, 2004 as set forth in Section 6.1 when such application for the tax refund becomes possible, and if FG has received any such tax refund, FG shall reimburse to Astellas for the amounts corresponding to the withholding taxes paid in Astellas' accounts as set forth above.

10.5 Records; Inspections. Astellas shall keep, and require its Affiliates and Sublicensees to keep, complete, true and accurate books of accounts and records for the purpose of determining payments due pursuant to this Agreement. Such books and records shall be kept for at least **[*]** following the end of the calendar quarter to which they pertain. FG shall keep, and require its Sublicensee(s) to keep, complete, true and accurate books of accounts and records for the purpose of verifying the accuracy of the **[*]** Percentage and Fully Burdened Costs. Such records will be open for inspection at the principal place of business of each party (the "Inspected Party") during such **[*]** period by an independent auditor chosen by the other party (the "Inspecting Party") and reasonably acceptable to the Inspected Party for the purpose of verifying the amounts payable by Astellas to FG hereunder or the accuracy of the **[*]** Percentage and/or Fully Burdened Costs. Such inspections may be made no more than once each calendar year, at reasonable times and on reasonable notice. Any books of accounts or records shall not be inspected more than once. The independent auditor retained by the Inspecting Party shall be obligated to execute a reasonable confidentiality agreement with the Inspected Party prior to commencing any such inspection, which, among other customary clauses, contains the provisions to the effect that such auditor shall not disclose to the Inspecting Party any information other than as necessary to accomplish the purpose of the inspection. Inspections conducted under this Section 10.5 shall be at the expense of the Inspecting Party. Any underpaid or overcharged amounts that are discovered will be paid by the Inspected Party, and with interest on such underpaid or overcharged amounts at the rate set forth in Section 10.2 above. The parties will endeavor to minimize disruption of the Inspected Party's normal business activities to the extent reasonably practicable.

ARTICLE 11
DUE DILIGENCE

11.1 Astellas' Due Diligence. Astellas shall use its commercially reasonable efforts (i) to conduct any development work undertaken under the Development Program, and any and all clinical trials (including without limitation Phase III) required to obtain, and thereafter to take such other actions as are necessary to obtain, Marketing Approvals for any Lead Compound in the Astellas Territory as soon as practicable, and (ii) to launch each such Lead Compound in the Astellas Territory as soon as practicable after receiving Marketing Approval in the Astellas Territory for such Lead Compound.

11.2 FG's Due Diligence. FG shall use its commercially reasonable efforts to conduct, and to the extent possible taking into account safety and other applicable issues, complete a Phase II clinical trial with FG-2216 or another Lead Compound in the FG Territory.

11.3 Development Diligence

11.3.1 Astellas shall pursue development of Indications according to the following terms: (i) Astellas shall pursue Commercialization in "Treatment of anemia in patients with chronic kidney disease undergoing dialysis" and "Treatment of anemia in patients with chronic kidney disease not undergoing dialysis"; (ii) Astellas shall notify FG within six (6) months of the execution of this Agreement whether it shall pursue Commercialization in **[*]**; (iii) Astellas shall notify FG within six (6) months of the date FG notifies Astellas that it has demonstrated Proof of Concept whether it will pursue Commercialization in **[*]**; (iv) Astellas shall notify FG within six (6) months of the date FG notifies Astellas that it has demonstrated Proof of Concept whether it will pursue Commercialization in **[*]**; and (v) Astellas shall notify FG, upon Marketing Approval for any Lead Compound in each of the following Indications, whether it will pursue Commercialization of such Indication: **[*]**, and any other indications to be added hereafter to the definition of the Indication by mutual agreement; and (vi) if FG is pursuing Commercialization of **[*]**, Astellas shall notify FG after Marketing Approval whether it shall pursue Commercialization of such Indication. Should Astellas inform FG that it does not wish to pursue Commercialization of any Indication, or should Astellas fail to meet the due diligence obligations under Section 11.3.2 for any Indication as set forth in Section 11.3.1(iv) or under Section 11.3.3 for any Indication as set forth in Section 11.3.1(v), such Indication shall no longer be considered an Indication for the purposes of this Agreement, and Astellas shall have no right or shall lose any right with respect to such Indication under this Agreement including, without limitation, the licenses granted under Sections 8.1 and 13.1 hereof. Each Indication for which Astellas is obligated to pursue Commercialization under Section 11.3.1(i) or for which it decides to pursue Commercialization under Sections 11.3.1(ii), (iii) or (iv) shall be a "Major Indication".

11.3.2 In addition to the obligations set forth in Section 11.1 and 11.3, for each Major Indication, until such time as Astellas obtains Marketing Approval in the Astellas Territory for such Major Indication, with respect to each Lead Compound for each Major Indication, Astellas shall:

(a) If required for development of a Lead Compound in an Indication, Initiate Phase I clinical trials within **[*]** after the later of (i) the Effective Date, for Indications for which FG has commenced clinical trials prior to the execution of this Agreement, and (ii) FG's or its Sublicensees Initiation of a Phase I clinical trial for other such Indications.

(b) Initiate Phase II clinical trials within the later of (i) **[*]** after FG's, or its Sublicensee's, Initiation of Phase II, (ii) **[*]** after Astellas' Completion of its Phase I clinical trial(s), (iii) if Astellas' obligations under this Subsection 11.3.2(b) are triggered upon FG's notification of demonstration of Proof of Concept in an Indication, **[*]** after the date Astellas notifies FG that it will pursue Commercialization in such Indication, and (iv) in the event Astellas' obligations under this Section 11.3.2(b) are triggered by the designation of a secondary Lead Compound as a primary Lead Compound, **[*]** after such designation.

(c) Either notify FG of its intent to employ the Bridging Strategy, if applicable, or Initiate Phase III clinical trials within **[*]** of the later of (i) FG's, or its Sublicensee's Initiation of a Phase III clinical trial and (ii) Astellas' Completion of its Phase II clinical trial(s).

11.3.3 For each of the Indications set forth in Section 11.3.1(v), Astellas shall Initiate Phase II clinical studies within **[*]** of its notification to FG that it will pursue Commercialization in such Indication.

11.3.4 Astellas' diligence obligations set forth in Section 11.3.2 shall apply to all Lead Compounds designated by FG, provided, that for each Indication for which such diligence obligations apply, the diligence obligations shall only apply to the primary Lead Compound designated by FG, and for the secondary Lead Compound, Astellas' diligence obligations shall be limited to those set forth in Section 11.3.2(a) until the designation of the secondary Lead Compound as the primary Lead Compound, provided, further, upon such designation, that such diligence obligation shall be expanded to include the requirement that Astellas complete the Phase I clinical studies required to Initiate Phase II clinical studies in the Indication with such secondary Lead Compound.

ARTICLE 12
MANUFACTURING RIGHTS

12.1 Procedures. FG shall have the exclusive right to determine the methods and procedures for the manufacture of all Lead Compounds. If FG intends to make any change in the methods or procedures, including, without limitation, manufacturing process, analyzing process and/or site change for manufacture of the Lead Compounds, FG shall notify Astellas in writing of such intended change; provided, that if in Astellas' reasonable opinion, such change may lead to any amendment to the relevant Marketing Approval or Marketing Approval Application, Astellas shall use best efforts to (i) as soon as possible petition the Japanese Ministry of Health, Labor and Welfare to make the change without an amendment to the Marketing Approval or MAA and shall concurrently prepare an application for amendment to the Marketing Approval or MAA, and (ii) if the Japanese Ministry of Health, Labor and Welfare determines such an amendment is required, shall notify FG and submit the application for amendment immediately following notice of such requirement, and FG shall not make the intended change without a prior written consent from Astellas, such consent not to be unreasonably withheld or delayed, provided, further, that consent shall be deemed granted upon notice that an amendment is not required or approval of an amendment from the Japanese

Ministry of Health, Labor and Welfare. FG shall provide Astellas with all the data and information necessary for Astellas to amend the Marketing Approval or MAA in Astellas Territory and shall continue to supply Astellas with the Lead Compound as manufactured with the manufacturing methods and procedures or at the manufacturing site described in Astellas' (or its Affiliate's or Sublicensee's) then current Marketing Approval or MAA until Astellas will have finished the necessary amendment to the relevant Marketing Approval or MAA or received notice that an amendment is not required.

12.2 FG Right. FG shall have the worldwide exclusive right (itself or through third party vendors) to manufacture (or have manufactured) Lead Compounds. Astellas and its Affiliates and Sublicensees shall not directly or indirectly make, produce or manufacture any Lead Compounds.

12.3 Manufacture and Supply. FG shall have the exclusive right and obligation to supply the Lead Compounds to Astellas and its Affiliates and Sublicensees for all development and commercial purposes, and Astellas and its Affiliates and Sublicensees shall purchase such Lead Compounds exclusively from FG. It is understood that FG may engage subcontractors with respect to the manufacture of such Lead Compounds to fulfill its supply obligations to Astellas hereunder. In all cases, supply by FG of Lead Compounds hereunder shall be Ex Works (Incoterms 2000) the manufacturing facility. Subject to Section 8.3.5 hereof, nothing herein is intended to preclude FG from granting rights to supply or supplying (a) any Lead Compound outside of the Astellas Territory to any third party for use within or outside the Field, or (b) any compound Controlled by FG within the Astellas Territory except for a Lead Compound for the duration of its designation in compliance with the terms and conditions of this Agreement.

12.4 Product Specifications. The Lead Compounds to be supplied by FG hereunder shall meet the Product Specifications. In addition to, but not in limitation of, the foregoing, FG and Astellas agree that upon Marketing Approval for any Lead Compound, FG's obligation to supply Astellas with Lead Compound shall be limited to, and all payment obligations set forth in Section 9.2 shall be based on, the supply of Bulk Product, unless otherwise agreed by the parties. The packaging for the Lead Compound to be distributed commercially by Astellas shall contain a clearly visible acknowledgment that the Lead Compound was manufactured by FG, and shall contain a registered trademark of the FG logo or other trademark approved by FG.

12.5 Orders Forecast

12.5.1 Orders for Non-Commercial Use. In connection with the supply of any Lead Compound for non-commercial use in the Territory, Astellas shall provide FG with a firm purchase order as early as possible prior to its requirements, and in no event less than **[*]** prior to the shipment or other release date(s) requested by Astellas for such Lead Compound. FG shall provide such Lead Compound to Astellas as soon as practicable within such time period, subject, prior to Marketing Approval, to the reasonable lead time requirements of third party contract manufacturers. All forecasts shall be prepared in good faith in order to facilitate FG's manufacture and shipment of the Lead Compound in compliance with this Agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

12.5.2 Forecast and Order for Commercial Use. In connection with the supply of any Lead Compound for commercial use in the Astellas Territory upon FG's request, Astellas and FG shall negotiate in good faith appropriate forecasting and firm purchase order lead times, taking into consideration the reasonable notice requirements of FG and its third party manufacturers. All forecasts shall be prepared in good faith in order to facilitate FG's manufacture and shipment of the Lead Compound in compliance with this Agreement.

12.6 Shipment. Astellas, or FG at Astellas' request if specified in a purchase order by Astellas, shall arrange for shipment of the Lead Compound as specified in each purchase order by Astellas, Ex Works (Incoterms 2000) the manufacturing facility. For purposes of this Agreement, and notwithstanding anything to the contrary contained within the term "Ex Works", it is hereby acknowledged and agreed that title and risk of loss shall transfer to Astellas from receipt by Astellas at the manufacturing facility. Astellas shall bear the costs of such carrier, including the costs of insurance of the shipment, and all customs, duties, sales taxes and other governmental charges related to the importation and sales of the Lead Compound.

12.7 Inspection of Shipment/Right to Reject. Each shipment of Lead Compound from FG to Astellas shall contain such laboratory and quality control certificate as are necessary to show that the Lead Compound is in conformity with the Product Specifications. Astellas shall promptly inspect each shipment. In the event that any portion of the shipment fails to conform to the Product Specifications, Astellas shall notify FG within **[*]** of Astellas' receipt of such shipment. Such notice shall specify the manner in which the Lead Compound fails to meet the Product Specifications. In the absence of such notification, Astellas shall be deemed to have accepted the shipment. FG and Astellas agree to consult with each other to resolve any discrepancy between each other's determinations regarding any possible nonconformity of the Lead Compound. If such consultation does not resolve the discrepancy, the parties agree to nominate a reputable independent laboratory or other independent third party, in each case acceptable to both parties, to carry out tests on representative samples taken from such shipment, and the results of such tests shall be binding on both parties. If the results of such tests demonstrate that the Lead Compound does not meet the Product Specifications, then FG shall pay the costs of such tests; otherwise, Astellas shall pay for the costs of such tests. FG shall, at its expense, promptly replace any Lead Compound to the extent that, in accordance with this Section 12.7, it is determined that it does not conform to the Product Specifications. Unless otherwise instructed by FG, all non-conforming Lead Compound shall be returned to FG at the place of manufacture at FG's direction and at FG's expense. If Astellas detects at any time any defect in the Lead Compound which has not been found through Astellas' inspection, it shall notify FG to that effect within **[*]** of the discovery of such defect, and the procedures set forth above in this Section 12.7 shall be applied to such defective Lead Compound, provided, that FG shall only be responsible to pay for costs of defects that are the result of FG's gross negligence or willful misconduct.

12.8 Inspection of Facilities. Astellas shall have the right, upon reasonable advance notice and during regular business hours, to inspect and audit, either by itself or through its Affiliates or consultants, the facilities (including any facilities of sub-contractors) being used by FG for production of the Lead Compound to assure compliance with applicable laws, rules and regulations, including, without limitation, Japanese regulatory standards and FG quality control procedures ("Relevant Standards"). FG shall also reasonably comply with inspection

requests of the Japanese Ministry of Health, Labor & Welfare. Such inspection and audit shall be conducted at Astellas' sole cost and expense in a manner so as to minimize disruption of FG's, or its subcontractor's or Sublicensee's, business operations. FG shall, within **[*]** after FG's receipt of written notice from Astellas detailing any deficiencies which may be noted in any such audit which relate to the Relevant Standards use good faith efforts to remedy such deficiencies, and submit a plan to the Astellas outlining steps proposed to be taken.

12.9 Recall. In the event that Astellas deems it necessary to recall any Lead Compound from the market, it may do so in its sole discretion, after notification to the FG. The costs and expenses for such recall shall be borne by Astellas unless caused by a failure for which FG is required to indemnify Astellas pursuant to Section 17.3, or by FG's gross negligence or willful misconduct, in which event it shall be borne by FG.

12.10 Warranty. FG represents and warrants that the Lead Compounds to be supplied to Astellas under this Agreement shall conform to the Product Specifications and shall, as appropriate, be manufactured in compliance with GMP Guidelines. Subject to Sections 12.9 and 17.3 hereof, FG's sole obligation and Astellas' sole remedy with respect to Lead Compound which does not
meet the warranty contained herein is limited to replacement of such Lead Compound and reimbursement of Astellas' out of pocket expenses for shipping to FG at the address designated by FG.

12.11 Interruption in Supply. For any particular Lead Compound, in order to minimize any interruptions in supply hereunder, FG and Astellas agree that within **[*]**, FG shall maintain two separate, validated manufacturing sites (which may either be its own manufacturing facilities or facilities of a contract manufacturer) for such Lead Compound.

12.12 Reference and Standard Materials. For any Lead Compound provided to Astellas hereunder, upon Astellas' request and pursuant to Section 9.4 hereof, FG shall provide to Astellas reasonable quantities of reference materials, including analogs, metabolites, impurities, degradates and radio-labeled compounds ("Reference Materials") and standard materials, i.e. defined, highly purified Lead Compound ("Standard Materials") for such Lead Compound for the purposes of conducting analytical, release, stability and other studies as may be authorized by the JDC under the Development Program.

ARTICLE 13
LICENSE GRANTS

13.1 Grant to Astellas. Subject to the terms and conditions of this Agreement including Article 12 above, FG hereby grants to Astellas an exclusive license under the FG Technology to: use, package, sell, have sold, import, market and otherwise distribute the Lead Compounds for use solely in the Field in the Astellas Territory

13.2 Sublicenses. The licenses granted under Section 13.1 above include the right to grant and authorize sublicenses, subject to the requirements of this Agreement and Section 7.2. Notwithstanding the foregoing, Astellas shall not have the right to authorize a Sublicensee to market, sell or distribute Lead Compounds without FG's prior written consent

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(which consent shall not be unreasonably withheld). For the purposes of the foregoing, and without limitation, it shall be deemed reasonable for FG to withhold consent for competitive concerns.

13.3 No Rights Beyond Lead Compounds. Except as expressly provided herein, nothing in this Agreement shall be deemed to grant to Astellas rights in FG Technology other than the rights granted hereunder to the Lead Compounds, or for applications outside the Field or outside the Astellas Territory, or to manufacture Lead Compounds; nor shall any provision of this Agreement be deemed to restrict FG's right to exploit any FG Technology and/or the Lead Compounds outside the Astellas Territory.

13.4 Expanded Field Negotiation. Following the signing of this Agreement, FG agrees to negotiate in good faith with Astellas for a license to develop compounds for the Expanded Field in the Astellas Territory, exclusively for a period of **[*]** following such date, and non-exclusively thereafter until the execution of a license agreement with a third party to develop compounds for the Expanded Field. FG and Astellas hereby agree that FG's obligation to negotiate non-exclusively for the Expanded Field shall not constitute a right of first offer, right of first refusal, right of first negotiation or any obligation to enter into any agreement with Astellas at any time, and the failure of such negotiations to result in an agreement between FG and Astellas with respect to the Expanded Field shall not constitute a breach of this Agreement.

ARTICLE 14
INTELLECTUAL PROPERTY

14.1 Ownership of Inventions. Subject to Section 14.1.1, title to all inventions and other intellectual property made related to (i) the Development Program, (ii) the Lead Compounds, (iii) FG Technology or FG Confidential Information, (iv) the Field, or (v) the Expanded Field (subsections 14.1(i)-(v), collectively, the "Protected Field") shall be owned by or is hereby assigned to FG; provided, however that Astellas shall own inventions of general applicability relating solely to drug delivery systems created exclusively by Astellas under subsection 14.1(i), excluding inventions related to or based on subsections 14.1(ii), (iii), (iv), or (v), and provided, further, that Astellas hereby grants to FG a worldwide, fully paid non-exclusive license with the right to sublicense to practice such inventions with respect to the FG Technology. Astellas agrees to execute any and all assignments and other documents necessary to effectuate the foregoing.

14.1.1 Notwithstanding Section 14.1, in the event that Astellas develops, completely independently from any FG Technology and/or any other FG materials, confidential information, intellectual property or other related information provided by or on behalf of FG to Astellas under this Agreement or any other agreement between FG and Astellas relating to the subject matter hereof, any inventions or intellectual property rights related to the Field or the Expanded Field, **[*]**, Astellas shall own such intellectual property and hereby grants to FG and its Sublicensees a non-exclusive, royalty-free, irrevocable license to such intellectual property for the FG Territory. Astellas agrees to execute any and all assignments and other documents necessary to effectuate the foregoing.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

14.2 Patent Prosecution

14.2.1 FG Inventions. FG shall control all Prosecution and Interference Activities pertaining to FG Patents and patent applications and patents related to its, its Affiliate's or its Sublicensee's inventions in the Protected Field worldwide using counsel of its choice and shall bear the costs of such Prosecution and Interference Activities, provided, however, that; and Astellas shall reimburse to FG, within **[*]** of receipt by Astellas of invoice therefor, any such costs to the extent incurred in connection with or reasonably allocable to the FG Patents registered and/or to be registered in the Astellas Territory and related to the Field and the Lead Compounds, provided, further, that, with respect to patents or patent applications excluding those covering composition of matter claims and all patents listed on Exhibit A hereto as of the Effective Date, Astellas may postpone such reimbursement until the respective FG Patent will have been registered in the Astellas Territory if **[*]**, on condition that once the respective FG Patent has been registered in the Astellas Territory, Astellas shall pay to FG such costs, plus interest to the extent permitted by applicable law at the U.S. prime rate per annum quoted in the "Money Rates" column of The Wall Street Journal (U.S., Western Edition), calculated in each case from the date such costs were incurred, plus an additional **[*]** thereof.

14.2.2 Astellas Inventions. Astellas shall not file for or otherwise seek to obtain (directly or indirectly) patent or other intellectual property protection for inventions that are related to the Protected Field, without the prior written consent of FG, which may be withheld at FG's sole discretion, subject to Section 14.1.1, and provided also that Astellas may file for or otherwise seek to obtain patent protection for inventions related to drug delivery systems as described in Section 14.1. To the extent that FG consents to the filing of any patent application or other intellectual property protection related to the foregoing, such patent application or other intellectual property protection shall be subject to Section 14.1, unless otherwise agreed in writing.

14.2.3 Cooperation. Astellas shall cooperate with and assist FG in connection with Prosecution and Interference Activities and shall use best efforts to consult with FG regarding the prosecution and maintenance of the FG Patents for the FG Territory and the Astellas Territory for those FG Patents for which Astellas or its Affiliates, Sublicensees or investigators are inventors, except solely for inventions (i) of general applicability relating solely to drug delivery systems created by Astellas under subsection 14.1(i), or (ii) created in compliance with Section 14.1.1 as determined solely by FG in good faith.

14.3 Defense of Third Party Infringement Claims. If the development, manufacture, sale or use of any Lead Compound pursuant to this Agreement results in a claim, suit or proceeding (collectively, "Actions") alleging patent infringement against FG or Astellas (or their respective Affiliates or Sublicensees), such party shall promptly notify the other party hereto in writing. The party subject to such Action (for purposes of this Section 14.3, the "Controlling Party") shall have the exclusive right to defend and control the defense of any such Action using counsel of its own choice; provided, however, that if such Action is directed to the subject matter of a patent of the other party (*i.e.*, for Astellas, a FG Patent), such other party may participate in the defense and/or settlement thereof at its own expense with counsel of its choice.

Except as agreed in writing by Astellas and FG, Astellas shall not enter into any settlement relating to a Lead Compound, if such settlement admits the invalidity or unenforceability, or limits any claim, of any patent within the FG Technology. The Controlling Party agrees to keep the other party hereto reasonably informed of all material developments in connection with any such Action. Any cost, liability or expense associated with such action (including amounts paid in settlement) (together, "Expenses") shall be borne by the Controlling Party; provided, that if Astellas is the Controlling Party, and the Action is related to Future Third Party Intellectual Property, with respect to Expenses related solely to such Future Third Party Intellectual Property, it shall be entitled to deduct up to **[*]** of the Expenses incurred on an annual basis from **[*]** in such year under this Agreement, provided, however, that (i) the total amount deducted shall not exceed **[*]** thereunder, and (ii) notwithstanding (i) above, Astellas' right to deduct Expenses incurred shall be further limited such that in no event shall the sum of (a) the Expenses deducted by Astellas under this Section 14.3, and (b) the consideration FG contributes for the acquisition of intellectual property from Third Party Licensors for the Astellas Territory as set forth in Section 14.5, exceed **[*]** hereunder, and, provided further, that if FG is the Controlling Party, it shall be entitled to reimbursement by Astellas of **[*]** of such Expenses, as incurred. Notwithstanding the foregoing, Astellas shall be solely responsible (without right of deduction) for all Expenses related to any Action relating to Preexisting Third Party Intellectual Property.

14.4 Enforcement. Subject to the provisions of this Section 14.4, in the event that FG or Astellas reasonably believes that any FG Technology necessary for the development, manufacture, use or sale of a Lead Compound is infringed or misappropriated by a third party or is subject to a declaratory judgment action arising from such infringement, in each case with respect to the development, manufacture, sale or use of a product within the Field and within the Astellas Territory, Astellas or FG (respectively) shall promptly notify the other party hereto. Promptly after such notice the parties shall meet to discuss the course of action to be taken with respect to an Enforcement Action (as defined below) with respect to such infringement or misappropriation, including the control thereof and sharing of costs and expenses related thereto, for the purposes of entering into a litigation agreement setting forth the same ("Litigation Agreement"). If the parties do not enter such Litigation Agreement, FG shall have the initial right (but not the obligation) to enforce the intellectual property rights with respect to the FG Technology, or defend any declaratory judgment action with respect thereto (such action, for purposes of this Section 14.4, an "Enforcement Action").

14.4.1 Information. Absent a Litigation Agreement, the party initiating or defending any such Enforcement Action within the Field shall keep the other party hereto reasonably informed of the progress of any such Enforcement Action, and such other party shall have the right to participate with counsel of its own choice at its own expense.

14.4.2 Enforcement Costs; Recoveries. Absent a Litigation Agreement, FG shall have the initial right to initiate such an Enforcement Action**,** and shall notify Astellas within a reasonable time whether it elects to exercise such right. In the event that FG elects to initiate or defend such Enforcement Action, FG shall be responsible for **[*]** of the costs and expenses while Astellas shall be responsible for **[*]** of the costs and expenses, and all amounts recovered shall first be applied to reimbursement of each

party's costs and expenses with the remainder to be allocated to FG and Astellas at the ratio of **[*]** and **[*]**. In the event that FG elects not to initiate or defend such Enforcement Action, Astellas shall have the right to initiate or defend such Enforcement Action in its own name, and to the extent permitted under Third Party Agreements, in the name of FG or in the names of both FG and Astellas, in which case, Astellas shall be responsible for **[*]** of the costs and expenses while FG shall be responsible for **[*]** of the costs and expenses, and all amounts recovered shall first be applied to reimbursement of each party's costs and expenses with the remainder to be allocated to Astellas and FG at the ratio of **[*]** and **[*]**.

14.4.3 Cooperation in Enforcement Action. Absent a Litigation Agreement, at the request of the party which has the right to initiate or defend an Enforcement Action, the other party shall reasonably cooperate in the Enforcement Action, such cooperation to include, without limitation, furnishing records, information and testimony, and attending conferences, discovery proceedings, hearings, trials and appeals; provided, that the requesting party shall reimburse to the cooperating party for the out-of-pocket expenses incurred for such cooperation pursuant to the reimbursement regime set forth in Section 14.4.2.

14.5 Third Party Agreements

14.5.1 Future Agreements. It is understood that FG may find it necessary to utilize in connection with a Lead Compound intellectual property that is controlled by a non-Affiliate third party (such party, a "Third Party Licensor"), in addition to or in lieu of the FG Technology existing as of the Effective Date. FG shall have the right to obtain (by purchase, license, or otherwise) rights to such intellectual property with the right to sublicense to Astellas. In the event that FG determines that it must obtain such rights, it shall provide notice and submit a description of such rights to Astellas, and shall discuss with Astellas the need to obtain such rights. Astellas shall inform FG within **[*]** of receipt of such notice whether it believes it is necessary to obtain such rights for the Astellas Territory and wishes to obtain such rights. In the event Astellas determines to obtain such rights, FG shall obtain a worldwide license for the rights under such terms and conditions as are **[*]**, and such intellectual property of the Third Party Licensor shall be deemed to be the part of FG Technology, provided, however, that, notwithstanding anything contained in this Agreement (i) for Preexisting Third Party Intellectual Property, **[*]** shall pay **[*]** of all consideration due in connection with the acquisition of such rights for the Astellas Territory, and (ii) for Future Third Party Intellectual Property, **[*]** shall **[*]** pay **[*]** of all consideration due in connection with the acquisition of such rights for the Astellas Territory, provided, however, notwithstanding FG's obligation to contribute to the consideration due for Future Third Party Intellectual Property under (ii) above, FG's obligation to contribute shall be limited such that in no event shall the sum of (a) the consideration FG contributes for the acquisition of intellectual property from Third Party Licensors for the Astellas Territory, and (b) the Expenses for which Astellas has the right to deduct under Section 14.3 exceed **[*]** hereunder, and Astellas shall be responsible for all consideration related to the acquisition of rights from Third Party Licensors in excess of such amount. In the event Astellas determines not to obtain such rights for the Astellas Territory, FG shall obtain a license for the FG Territory but not the Astellas Territory, and Astellas shall be solely responsible for the defense of any infringement

Action, for all Expenses related to any such Action, and any right of Astellas to deduct Expenses under this Agreement against payments required to be made to FG hereunder shall not apply to any action brought with respect to such rights.

14.5.2 Payment; Reports. If FG is obligated to pay amounts to a Third Party Licensor, FG shall notify Astellas **[*]** in advance of the due date of such payment obligation (or such later date as FG may determine), and Astellas shall reimburse its share of such payments within **[*]** after receipt of notice therefor.

14.5.3 Limitation. To the extent that FG Patents includes any intellectual property licensed under FG's License Agreement with Imigen, Inc. relating to HIF stabilization technology dated as of October 30, 2003, and amended as from time to time of which a redacted copy shall have been provided to Astellas prior to the Effective Date, Astellas shall be considered a sublicensee and be subject to the applicable requirements thereunder.

14.5.4 Compliance with Third Party Agreements. Notwithstanding anything to the contrary contained herein, Astellas agrees to comply with the requirements (upon sublicensees or otherwise) of FG's License Agreement with Imigen, Inc. relating to HIF stabilization technology dated as of October 30, 2003. In addition, Astellas agrees to comply with the requirements (upon sublicensees or otherwise) of any future Third Party Agreements for which Astellas obtains rights through an FG license pursuant to Section 14.5.1 hereof.

ARTICLE 15
REPRESENTATIONS AND WARRANTIES

15.1 FG Warranties. FG warrants and represents to Astellas, as of the execution of this Agreement, that (i) it is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware; (ii) the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of FG; (iii) there is no pending litigation which alleges or any communication alleging that Commercialization of any Lead Compound or any compound Controlled by FG for use in the Field has infringed or misappropriated the intellectual property rights of any Third Party or has been obtained by misappropriating any Third Party's intellectual property right; and (iv) subject to the terms and conditions of the agreements for the FG Acquired Patents, FG has complete title to and ownership of the FG Patents, free and clear from any mortgages, pledges, liens, security interests, conditional and installment sale agreements, encumbrances, charges or claims of any kind.

15.2 Astellas Warranties. Astellas warrants and represents to FG, as of the execution of this Agreement, that (i) it is a corporation duly organized, validly existing and in good standing under the laws of Japan; and (ii) the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of Astellas.

15.3 Disclaimer of Warranties. EXCEPT AS OTHERWISE SET FORTH HEREIN, FG AND ASTELLAS EXPRESSLY DISCLAIM ANY WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

THE DEVELOPMENT PROGRAM, OR THE FG TECHNOLOGY OR LEAD COMPOUNDS, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF FG TECHNOLOGY, PATENTED OR UNPATENTED, AND NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ARTICLE 16
CONFIDENTIALITY

16.1 Confidential Information. Except as expressly provided herein, the parties agree that the receiving party shall not publish or otherwise disclose and shall not use for any purpose other than this Agreement any information furnished to it by the other party hereto pursuant to this Agreement which if disclosed in tangible form is marked "Confidential" or with other similar designation to indicate its confidential or proprietary nature or if disclosed orally is indicated orally to be confidential or proprietary by the party disclosing such information at the time of such disclosure and is confirmed in writing as confidential or proprietary by the disclosing party within a reasonable time after such disclosure (collectively, "Confidential Information"). Notwithstanding the foregoing, Confidential Information shall not include information that, in each case is demonstrated by written documentation:

(a) was already known to the receiving party, other than under an obligation of confidentiality directly or indirectly to the disclosing party at the time of disclosure hereunder;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party hereunder;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving party in breach of this Agreement; or

(d) was subsequently lawfully disclosed to the receiving party by any third party without any confidentiality obligation directly or indirectly to the disclosing party or developed by the receiving party without reference to any information or materials disclosed by the disclosing party.

It is agreed and understood that all matters discussed and presented at the meetings of the JDC shall be considered Confidential Information hereunder, subject to the terms and conditions of this Agreement.

16.2 Permitted Disclosures. Notwithstanding the provisions of Section 16.1 above, each party hereto may disclose the other party's Confidential Information to the extent such disclosure is reasonably necessary to exercise the rights granted to it, or reserved by it, under this Agreement (including, without limitation, entering into and/or performing business or scientific relationships with respect to products outside the Field as permitted hereunder), in filing or prosecuting patent applications, prosecuting or defending litigation, complying with applicable governmental regulations, submitting information to tax or other governmental

authorities (including regulatory authorities), or conducting clinical trials hereunder with respect to Lead Compounds, provided that if a party is required by law to make any such disclosure of the other party's Confidential Information, to the extent it may legally do so, it will give reasonable advance notice to the latter party of such disclosure and, save to the extent inappropriate in the case of patent applications or otherwise, will use its reasonable efforts to secure confidential treatment of such Confidential Information prior to its disclosure (whether through protective orders or otherwise).

16.3 Clinical Data. Except as expressly permitted under Sections 7.2 and 16.2, and for publications or disclosures in accordance with Section 5.2, neither party shall disclose to third parties pre-clinical data, clinical data or regulatory filings, comprising Confidential Information of the other party.

16.4 Press Releases. Except as may already be, or is agreed to be, publicly disclosed, in the event that either party proposes to release a press release with respect to this Agreement or the Development Program, such party shall obtain the prior written consent of the other party, which shall not be unreasonably withheld.

ARTICLE 17
INSURANCE; INDEMNIFICATION

17.1 Insurance. Each party shall secure and maintain in effect during the term of this Agreement and for a period of five (5) years thereafter insurance policy(ies) underwritten by a reputable insurance company and in a form and having limits standard and customary for entities in the biopharmaceutical industry for exposures related to the Lead Compounds. Such insurance shall include general liability, clinical trial liability and products liability coverage with respect to such party's performance of the Development Program and commercialization of Lead Compounds hereunder. Upon request by the other party hereto, certificates of insurance evidencing the coverage required above shall be provided to the other party.

17.2 Indemnification of FG. Astellas shall indemnify each of FG and its Affiliates and the directors, officers, and employees of FG and such Affiliates and the successors and assigns of any of the foregoing (the "FG Indemnitees"), and hold each FG Indemnitee harmless from and against any and all liabilities, damages, settlements, claims, actions, suits, penalties, fines, costs or expenses (including, without limitation, reasonable attorneys' fees and other expenses of litigation) incurred by any FG Indemnitee to the extent not otherwise covered by insurance, arising from or occurring as a result of any claim, action, suit, or other proceeding brought by third parties against a FG Indemnitee arising from or occurring as a result of any development, testing, manufacture, importation, use, offer for sale, sale or other distribution of any Lead Compound by or for the benefit of Astellas or its Affiliates or Sublicensees, distributors or agents (including, without limitation, product liability and infringement claims) except to the extent caused by failure of the Lead Compound supplied by FG to meet the Product Specifications in effect at the time of manufacture, or material deviation by FG or its sub-contractor from GMP Guidelines in manufacturing the Lead Compound, or FG's breach of this Agreement or willful misconduct.

17.3 Indemnification of Astellas. FG shall indemnify each of Astellas and its Affiliates and the directors, officers, and employees of Astellas and such Affiliates and the successors and assigns of any of the foregoing (the "Astellas Indemnitees"), and hold each Astellas Indemnitee harmless from and against any and all liabilities, damages, settlements, claims, actions, suits, penalties, fines, costs or expenses (including, without limitation, reasonable attorneys' fees and other expenses of litigation) incurred by any Astellas Indemnitee to the extent not otherwise covered by insurance, arising from or occurring as a result of any claim, action, suit, or other proceeding brought by third parties against an Astellas Indemnitee to the extent caused by failure of the Lead Compound supplied by FG to meet the Product Specifications in effect at the time of manufacture, or material deviation by FG or its sub-contractor from GMP Guidelines in manufacturing the Lead Compound, except in each case in this Section 17.3 to the extent caused by Astellas' breach of this Agreement or willful misconduct.

17.4 Procedure. A party (for purposes of this Section 17.4, the "Indemnitee") that intends to claim indemnification under any provision of this Agreement shall promptly notify the indemnifying party (the "Indemnitor") in writing of any claim, action, suit, or other proceeding brought by third parties in respect of which the Indemnitee or any of its Affiliates, or their directors, officers, employees, successors or assigns intend to claim such indemnification hereunder. As between the parties hereto the Indemnitor shall have the right to control the defense and settlement of such claim, action, suit, or other proceeding; provided, that the Indemnitee shall have the right to participate in such defense or settlement with counsel of its own choosing at its expense. The Indemnitee shall not make any settlement of any loss, claim, damage, liability or action without the consent of the Indemnitor, to the extent such consent is not withheld unreasonably or delayed. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such Indemnitor of any liability to the Indemnitee under this Article 17 but the omission so to deliver written notice to the Indemnitor shall not relieve the Indemnitor of any liability that it may have to any Indemnitee otherwise than under this Article 17. Without limiting the foregoing, the Indemnitee shall keep the Indemnitor fully informed of the progress of any claim, action, suit, or other proceeding for which it intends to claim indemnification under this Article 17.

ARTICLE 18
TERM AND TERMINATION

18.1 Term. This Agreement shall become effective as of the Effective Date and, shall continue in full force and effect until terminated pursuant to this Article 18.

18.2 Termination for Cause or Technical Product Failure

18.2.1 Material Breaches. FG may forthwith terminate this Agreement in the event Astellas fails to make any payment due under Articles 6, 9 or 14, within **[*]** following receipt of written notice of such default, or materially breaches its obligations under Articles 8 or 14, and fails to cure such breach within **[*]** following receipt of written notice of such default. Astellas may forthwith terminate this Agreement in the

event FG materially breaches its obligations under Article 7 or Article 12, and fails to cure such breach within **[*]** following receipt of written notice of such default. Any termination shall become effective at the end of such **[*]** or **[*]** period unless the defaulting or breaching party (or any other party on its behalf) has cured any such default prior to the expiration of the **[*]** or **[*]** period, as the case may be.

18.2.2 Independent Activities. Notwithstanding anything contained in Section 8.3.2 or Section 14.1.1, in the event that Astellas Commercializes any molecules for the Field or the Expanded Field, except for actions taken within the Field in the course of the exercise of the licenses granted under Sections 8.1 and 13.1 hereof and expressly authorized under this Agreement, even if FG determines that Astellas' activities are completely independent of any FG Technology and/or any other FG materials, confidential information, intellectual property or other related information provided by FG to Astellas under this Agreement or any other agreement between FG and Astellas relating to the subject matter hereof, FG shall have the right at its sole discretion to terminate this Agreement upon **[*]** notice to Astellas.

18.2.3 Technical Product Failure. Astellas may terminate this Agreement upon **[*]** notice to FG upon Technical Product Failure.

18.2.4 Development Diligence Failure. FG may terminate this Agreement upon thirty (30) days notice to Astellas in the event Astellas fails to meet any of its development diligence requirements as set forth in Article 11 hereof, provided, however, that with respect to the development diligence obligations set forth in Section 11.3.2, such termination right on behalf of FG shall be triggered only upon Astellas' failure to meet such development diligence obligations for a Major Indication (except those Major Indications set forth in Section 11.3.1(iv)), and Astellas may terminate this Agreement upon thirty (30) days notice to FG in the event FG fails to meet the development diligence requirement as set forth in Section 11.2 hereof.

18.2.5 Other Material Non-Performance/Misrepresentation. Other than a breach giving rise to a termination right as set forth in Sections 18.2.1 or 18.2.4, or a termination pursuant to a Technical Product Failure as set forth in Section 18.2.3 in the event of (i) a party's breach or default in any other material respect in the performance or observance of any other material term, covenant or provision of this Agreement, or (ii) if any representation by a party contained in this Agreement shall prove to have been incorrect in any material respect when made, resulting in material adverse consequences for the other party, (any such default or material incorrect representation a "Material Non-Performance"), such Material Non-Performance shall be remedied only as provided in Section 18.7.4 below.

18.3 Termination in case of Generic Competition. In the event generic equivalents has captured the **[*]** of the quantity of Lead Compound sold by Astellas during the **[*]** preceding such termination calculated on a annual basis; or in the event, after the entry into the market of generic equivalents, that Astellas' annual sales fall below $**[*]** for all Lead Compounds, Astellas may terminate this Agreement upon **[*]** written notice to FG; provided, that Astellas does not Commercialize any Lead Compound after such termination until the expiration of the last to expire FG Patents applicable to such Lead Compound.

18.4 Negative Advice from Authorities. Astellas may terminate this Agreement upon **[*]** notice to FG in the event Astellas has commenced Phase III clinical studies in those of the following Indications that FG is developing: "Treatment of anemia in patients with chronic kidney disease undergoing dialysis", "Treatment of anemia in patients with chronic kidney disease not undergoing dialysis" and **[*]**, and the Japanese Ministry of Health, Labor & Welfare has provided written notification that it will not approve the Lead Compounds in such Indications or the JDC determines, after the submission by Astellas of Marketing Approval Applications for such Indications, and the receipt of a response or request of the Japanese Ministry of Health, Labor & Welfare that contains development demands that are so onerous that it is not reasonable to continue with Development of the Lead Compounds in such Indications.

18.5 Admission of Invalidity or Unenforceability of FG Patent. Astellas may terminate this Agreement upon **[*]** notice to FG in the event that FG enters into a settlement under Section 14.3 that admits the invalidity or unenforceability of all patents within the FG Technology, including patents covering Lead Compounds.

18.6 Termination upon Notice. Subject to Section 18.7.2, Astellas may terminate this Agreement upon six (6) months notice to FG for any reason or no reason.

18.7 Effect of Termination

18.7.1 Accrued Obligations. Termination of this Agreement for any reason shall not release either party hereto from any liability which, at the time of such termination, has already accrued to the other party or which is attributable to a period prior to such termination nor preclude either party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

18.7.2 Termination. In the event of (a) a termination by Astellas under Section 18.6 during the period from the execution of this Agreement until the last to expire of the FG Patents, or (b) by FG under Section 18.2.1, 18.2.2, 18.2.4 or 18.2.5 hereof, Astellas shall, upon the effective date of such termination, pay to FG (i) a termination fee of $**[*]** U.S. dollars and (ii) any payments to which FG is otherwise entitled to receive hereunder in the period from the date of such termination notice until the **[*]**.

18.7.3 Survival. Articles 1, 5, 14, 16, 17, 18, 19 and 20, and Sections 8.3.3 and 10.5, shall survive any termination of this Agreement, along with FG's rights and Astellas' obligations (but not Astellas' rights or FG's obligations, except to the extent required by the Japanese Ministry of Health, Labor and Welfare) under Section 5.1.1 and Article 7. In addition, the following provisions shall survive termination of this Agreement for any reason: Astellas shall assign or cause to be assigned to FG (or if not so assignable, Astellas shall take all reasonable actions to make available to FG) all regulatory filings and registrations (including MAAs and Marketing Approvals) with respect to the Lead Compounds that have been filed or made by or under authority of Astellas, and the rights in trademark with respect to each Lead Compound as provided for in Section 4.4.1, in each case such assignment (or availability)

shall be made within **[*]** after the notice of termination. From and after the date of a notice of termination, FG shall have no further obligations under this Agreement beyond those obligations that survive termination in such events as specified in this Section 18.7.3.

18.7.4 Material Non-Performance. In the event of any Material Non-Performance by a party, the other party shall, without reasonable delay following discovery of such Material Non-Performance notify the defaulting party in writing, and the parties shall consult with each other in good faith to endeavor to agree upon the most effective means to cure such Material Non-Performance and, if necessary, to effect a remedy in favor of the non-defaulting party for the consequences of such Material Non-Performance by the defaulting party (collectively, the "Resolution"). In the event (i) the parties are unable to agree upon Resolution, or (ii) the defaulting party, in the exercise of reasonable diligence shall have been unable to remedy such Material Non-Performance, then in either such event the remedy of the non-defaulting party with respect to the Material Non-Performance by the defaulting party shall be determined by arbitration pursuant to Section 19.2 hereof, and the arbitrators shall be authorized to fashion such remedy, including equitable relief, which may include termination of this Agreement in whole or in part, as the arbitrators shall determine appropriate, except that termination of this Agreement in whole shall only be the remedy of last resort.

18.7.5 License Upon Termination. In the event of a termination of this Agreement, FG shall have an irrevocable, exclusive, license, with the right to grant and authorize sublicenses, to any trademarks used by Astellas in association with the Lead Compounds hereunder to make, use, sell, import and otherwise exploit products within the Field in the Astellas Territory. Such license shall be royalty-free, provided, however, if such trademark is not a global trademark (i.e. materially different from the trademark used in the FG Territory) and either (i) if Astellas terminates this Agreement under Section 18.2.1 or 18.2.4, or (ii) if this Agreement is terminated in accordance with the procedure as provided for in Section 18.2.5 as a result of FG's Material Non-Performance, in which event FG and Astellas shall negotiate in good faith a reasonable fee for such license.

ARTICLE 19
DISPUTE RESOLUTION

19.1 Disputes. If the parties are unable to resolve any dispute between them regarding the breach, interpretation or enforcement of this Agreement, either party may, by written notice to the other, have such dispute referred to their Authorized Designees, provided that such individuals are not directly involved in the dispute (i.e., the dispute occurs at the JDC, such individuals shall not be members of the JDC), for good faith negotiations. If after **[*]** such executives are unable to resolve the issue, each of Astellas and FG shall have the right to refer the matter to mediation upon notice to the other party, and the parties shall choose a mediator within **[*]** of the receipt of such notice, and shall negotiate in good faith to resolve such matter through the mediator within **[*]** thereafter.

19.2 Full Arbitration. Any dispute, controversy or claim arising out of or relating to the breach, interpretation or enforcement of this Agreement, including disputes relating to termination of this Agreement, shall be settled by binding arbitration in the manner

described in this Section 19.2. The arbitration shall be conducted pursuant to the rules of Arbitration of the International Chamber of Commerce then in effect. Notwithstanding those rules, the following provisions shall apply to the arbitration hereunder:

19.2.1 Arbitrators. The arbitration shall be conducted by a panel of three (3) arbitrators, with one (1) arbitrator chosen by each of FG and Astellas and the third appointed by the other two (2) arbitrators. If the parties are unable to agree upon a single arbitrator, or the third arbitrator in case of a panel of three (3), such third arbitrator (as the case may be) shall be appointed in accordance with the rules of the Arbitration of the International Chamber of Commerce.

19.2.2 Proceedings. Except as otherwise provided herein, the parties shall use their best efforts to complete the arbitration within **[*]** after the appointment of the Panel under Section 19.2.1 above, unless a party can demonstrate to the Panel that the complexity of the issues or other reasons warrant the extension of one or more of the time tables. In such case, the Panel may extend such time table as reasonably required. The Panel shall, in rendering its decision, apply the substantive law of the State of California, without regard to its conflicts of laws provisions, except that the interpretation of and enforcement of this Article 19 shall be governed by the U.S. Federal Arbitration Act. The proceeding shall be conducted in English and shall take place in the city of Vancouver, British Columbia, Canada. The judgment of the Panel shall be binding upon the parties and enforceable in any court of competent jurisdiction.

19.2.3 Interim Relief. Notwithstanding anything in this Article 19 to the contrary, FG and Astellas shall each have the right to apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other similar interim or conservatory relief, as necessary, pending resolution under the above described arbitration procedures. Nothing in the preceding sentence shall be interpreted as limiting the powers of the arbitrators with respect to any dispute subject to arbitration under this Agreement.

ARTICLE 20
MISCELLANEOUS

20.1 Confidential Terms. Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party, except (i) as required by securities or other applicable laws or (ii) to prospective and other investors and such party's accountants, attorneys and other professional advisors, or (iii) to others under reasonable conditions of confidentiality.

20.2 Governing Law. This Agreement and any dispute arising from the performance or breach hereof shall be governed by and construed and enforced in accordance with, the laws of the State of California, without reference to conflicts of laws principles.

20.3 Force Majeure. Nonperformance of any party (except for payment of amounts due hereunder) shall be excused to the extent that performance is rendered impossible by strike, fire, earthquake, flood, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control of the non-

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

performing party. In such event FG or Astellas, as the case may be, shall promptly notify the other party of such inability and of the period for which such inability is anticipated to continue. Without limiting the foregoing, the party subject to such inability shall use reasonable efforts to minimize the duration of any force majeure event.

20.4 No Implied Waivers; Rights Cumulative. No failure on the part of FG or Astellas to exercise and no delay in exercising any right under this Agreement, or provided by statute or at law or in equity or otherwise, shall impair, prejudice or constitute a waiver of any such right, nor shall any partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right.

20.5 Independent Contractors. Nothing contained in this Agreement is intended implicitly, or is to be construed, to constitute FG or Astellas as partners in the legal sense. No party hereto shall have any express or implied right or authority to assume or create any obligations on behalf of or in the name of any other party or to bind any other party to any contract, agreement or undertaking with any third party.

20.6 Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered or sent by registered or certified mail, return receipt requested, postage prepaid; facsimile transmission (receipt verified); or express courier service (signature required), in each case to the respective address specified below, or such other address or fax number as may be specified in writing to the other party hereto:

Astellas:	Astellas Pharma Inc. Attn: Director of Legal Department **[*]**
with copy to:	Astellas Pharma Inc. Attn: Licensing, Corporate Strategy **[*]**
FG:	FibroGen, Inc. Attn: Chief Executive Officer 225 Gateway Boulevard San Francisco, California 94080 Fax: 1-650-866-7202
with a copy to:	FibroGen, Inc. Attn: Legal Department 225 Gateway Boulevard San Francisco, California 94080 Fax: 1-650-866-7343

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

20.7 Assignment. This Agreement shall not be assignable by either party to any third party without the written consent of the other party hereto; except that either party may assign this Agreement without the other party's consent to an entity that acquires substantially all of the business or assets of the assigning party within the Field, in each case whether by merger, transfer of assets, or otherwise. Upon a permitted assignment of this Agreement, all references herein to the assigning party shall be deemed references to the party to whom the Agreement is so assigned.

20.8 Modification. No amendment or modification of any provision of this Agreement shall be effective unless in writing signed by all parties hereto. No provision of this Agreement shall be varied, contradicted or explained by any oral agreement, course of dealing or performance or any other matter not set forth in an agreement in writing and signed by all parties.

20.9 Severability. If any provision hereof should be held invalid, illegal or unenforceable in any jurisdiction, the parties shall negotiate in good faith a valid, legal and enforceable substitute provision that most nearly reflects the original intent of the parties and all other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in order to carry out the intentions of the parties hereto as nearly as may be possible. Such invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of such provision in any other jurisdiction.

20.10 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together, shall constitute one and the same instrument.

20.11 Headings. Headings used herein are for convenience only and shall not in any way affect the construction of or be taken into consideration in interpreting this Agreement.

20.12 Export Laws. Notwithstanding anything to the contrary contained herein, all obligations of FG and Astellas are subject to prior compliance with United States and foreign export regulations and such other United States and foreign laws and regulations as may be applicable, and to obtaining all necessary approvals required by the applicable agencies of the governments of the United States and foreign jurisdictions. FG and Astellas shall cooperate with each other and shall provide assistance to the other as reasonably necessary to obtain any required approvals.

20.13 Language. This Agreement is in the English language only, which language shall be controlling in all respects, and all versions hereof in any other language shall not be binding on the parties hereto. All communications and notices to be made or given pursuant to this Agreement shall be in the English language.

20.14 Entire Agreement. This Agreement (including the Exhibits hereto) constitutes the entire agreement, both written or oral, with respect to the subject matter hereof, and supersedes all prior or contemporaneous understandings or agreements, including the Binding Term Sheet, dated as of February 9, 2004 by and between FG and Astellas, as amended

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on January 25, 2005, whether written or oral, between FG and Astellas with respect to such subject matter.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered in duplicate originals as of the date first above written.

ASTELLAS PHARMA INC.

By: /s/ Toichi Takenaka
Toichi Takenaka
President and Chief Executive Officer

Date: 1.September.05

FIBROGEN, INC.

By: /s/ Thomas B. Neff
Thomas Neff
President and Chief Executive Officer

Date: 23 August 05

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EXHIBIT A
LIST OF PATENTS

[*]

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EXHIBIT B
INDICATIONS

Included indications:

- Treatment of anemia in patients with chronic kidney disease undergoing dialysis
- Treatment of anemia in patients with chronic kidney disease not undergoing dialysis
- **[*]**

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT C
INITIAL DEVELOPMENT PLAN

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.12

FIBROGEN – ASTELLAS

Anemia License and Collaboration Agreement

This Anemia License and Collaboration Agreement ("Agreement") is made and entered into, effective as April 28, 2006 ("Effective Date"), by and between Astellas Pharma Inc., having a principal place of business at 3-11, Nihonbashi-Honcho 2-chome, Chuo-ku, Tokyo 103-8411, Japan ("Astellas") and FibroGen, Inc., having a principal place of business at 225 Gateway Boulevard, South San Francisco, California 94080 U.S.A. ("FibroGen").

Definitions:

1. "Affiliate" shall mean any entity which controls, is controlled by or is under common control with Astellas or FibroGen. For purposes of this definition only, "control" shall mean the beneficial ownership (direct or indirect) of at least fifty percent (50%) of the voting power (or equivalent power) of the subject entity for the election or designation of directors (or, in the case of an entity that is not a corporation, for the election or designation of the corresponding managing authority).

2. "Anemia Indication" shall mean a treatment, for anemia, or intended to increase hemoglobin or hematocrit in a pathological deficiency in the oxygen-carrying component of the blood, measured in unit volume concentrations of hemoglobin, red blood cell volume, or red blood cell number. For the avoidance of doubt, Anemia Indication shall not include **[*]**. Furthermore, FibroGen and Astellas agree and acknowledge that the Anemia Indications shall include, without limitation, the indications listed on Exhibit A hereto.

3. "Authorized Designee" shall mean an officer of FibroGen or Astellas, as the case may be, designated by the Chief Executive Officer of the respective corporation, that has been granted full authority to resolve a dispute arising between FibroGen and Astellas.

4. "Bulk Product" shall mean a Product supplied by FibroGen to Astellas as a bulk formulated and finished drug (such as in a form of, including, but not limited, to a capsule, tablet or caplet formulation) without packaging.

5. "Collaboration" shall mean the Product Commercialization activities undertaken by or for either or both parties under this Agreement.

6. "Commercialize" shall mean directly or indirectly develop, manufacture, sell, market or distribute.

7. "Control" or "Controlled" shall mean possession of the ability to grant a license or sublicense as provided for herein without violating the terms of an agreement with a third party.

8. "Core Indications" are defined as "Treatment of anemia in patients with chronic kidney disease undergoing dialysis", "Treatment of anemia in patients with chronic kidney disease not undergoing dialysis",**[*]**.

9. "Development Program" shall mean the activities to be performed hereunder

with respect to the development of Products for applications within the Field, in accordance with the applicable development plans (as established hereunder) in effect at that time.

10. "Development Termination Date" shall mean **[*]** before the Patent Expiration Date, provided, however, that in no event shall the Development Termination Date occur prior to **[*]**. The Development Termination Date shall be adjusted forward or backward (but in no event earlier than **[*]**) in time as appropriate to account for a change in the Patent Expiration Date and for those extensions provided for under the "Designation of Products" section below.

11. "FDA" shall mean the U.S. Food and Drug Administration, or any successor agency.

12. "Field" shall mean the treatment of Anemia Indications, together with any additional indications, if any, added to the Field in accordance with the provisions in the "License" section of this Agreement, by means of the stabilization of HIF causing the stimulation of erythropoiesis (including an increase in endogenous erythropoietin production) and/or a subsequent increase in hematocrit through modulation of prolyl hydroxylase and/or asparaginyl hydroxylase.

13. "First Commercial Sale" shall mean, with respect to each Product in a given country, the first bona fide commercial sale of such Product in such country to a non-Affiliate third party by or under authority of Astellas, or its Affiliates or Sublicensees, as the case may be, in the Territory.

14. "FibroGen Acquired Patents" shall mean those FibroGen Patents not originally owned by FibroGen that are in-licensed or otherwise acquired by FibroGen.

15. "FibroGen Technology" shall mean FibroGen Patents and FibroGen Technical Information.

16. "FibroGen Patents" shall mean all patents including all reissues, renewals, re-examinations, supplemental protection certificates, and extensions thereof, and any patent applications, including all divisionals, substitutions or continuations, in whole or in part, thereof, which claim or otherwise cover the composition, manufacture, sale or use of a Product and that are owned or Controlled by FibroGen or its Affiliates as of the Effective Date or during the term of this Agreement (for the avoidance doubt, regardless of whether originally invented or created before or after the Effective Date). For purposes of this definition, a patent or patent application shall be deemed to "cover" a Product if the manufacture, use or sale of such Product would, but for the license granted herein, infringe, contributorily infringe or constitute inducement to infringement of such patent or patent application, if issued or granted as pending.

17. "FibroGen Technical Information" shall mean confidential information, tangible and intangible, and materials, including, but not limited to: trade

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secrets and know how; pharmaceutical, chemical, biological and biochemical compositions; technical and non-technical data and information, and/or the results of tests, assays, methods and processes; clinical data and regulatory filings (such as INDs, DMFs and NDAs); and plans, protocols, specifications and/or other documents containing said information and data; in each case that is possessed by FibroGen as of the Effective Date or discovered, developed, owned or Controlled by FibroGen or its Affiliates during the term of this Agreement, to the extent any of the foregoing relates to the development, manufacture, sale, marketing or use of a Product, together with any information, know-how, trade secrets or documents related to a candidate HIF Compound for potential use as a Product provided by FibroGen to Astellas in connection with the Product selection decision and consultation process.

18. "Fully Burdened Cost" with respect to a Product shall mean all costs actually incurred by FibroGen or its Affiliate(s) attributable and fairly allocable to produce, package and distribute the Product to Astellas or its carrier and any royalties or other consideration (not reimbursed by Astellas) paid to third parties for the acquisition or sale of such Product, which costs to produce and package the Product to include the direct material and labor and indirect costs (fairly allocated) that are incurred by FibroGen or its Affiliate(s) associated with the manufacture, filling, packaging, labeling, and preparation of product for shipment and/or other preparation of such Product, as applicable, including, but not limited to taxes, fees, and customs incurred, as applicable. Fully Burdened Costs will be determined in accordance with U.S. Generally Accepted Accounting Principles (U.S. GAAP) and will include but not be limited to the attributable and fairly allocable costs of facilities, labor, purchasing, depreciation of equipment, materials, payments to third parties for any necessary contract work for the manufacture or testing of the Product, quality assurance, quality control and other testing (including validation studies), storage (if requested by Astellas), shipping and costs for distribution, excess capacity costs (it being understood that any excess capacity costs included in the Product transfer price actually paid by FibroGen to a subcontractor or supplier for the purchase of such Products from such subcontractor/supplier is not subject to scrutiny hereunder for being "attributable and fairly allocable" as such excess capacity costs would be if incurred by FibroGen in FibroGen's own manufacturing activities) and a reasonable allocation of general and administrative overhead for the manufacturing operations. Costs for distribution consist of the labor, materials and reasonably allocated overhead necessary to prepare and package the final product for shipment to Astellas.

19. "Future Third Party Intellectual Property" shall mean any intellectual property rights, including without limitation all patents, trademarks, or copyrights, and any applications therefor, including any applications for registration, issuance, or grant thereof, owned or Controlled by a third party that are necessary for the practice of the license granted hereunder that were not owned or Controlled by FibroGen as of the Effective Date and that do not qualify as Pre-existing Third Party Intellectual Property.

20. "Generic" means, with respect to a Product Commercialized by Astellas in a country, a product (other than an actual Product Commercialized by Astellas pursuant to this Agreement — but not excluding that same Product if commercialized by a third party competitor) that (a) contains the same active pharmaceutical ingredient contained in such Product (i.e. the HIF Compound that constitutes such Product, without regard to any other active pharmaceutical ingredients that may or may not also be contained in such product and/or Product), whether in the same or modified formulation, and (b) has the same intended use and therapeutic benefit as such Product (including, without limitation, as evidenced by having been approved for one of the same indications as the Product).

21. "Generic Competition" shall exist during a given calendar quarter with respect to a Product in any country in the Territory if, during such calendar quarter, one or more Generics shall be sold commercially in such country and shall have, in the aggregate, a **[*]** or more market share of the aggregate of Products and Generics (based on data provided by IMS International, or if such data is not available, such other reliable data source as reasonably determined by Astellas and FibroGen) as measured by unit sales.

22. "**[*]** Percentage" shall be determined, for any Product, (i) by dividing (a) the **[*]**, which shall be defined as the difference between (x) the **[*]**, and (y) the **[*]**, by (b) the **[*]**; and (ii) multiplying the result of (i) above by 100.

23. "HIF" shall mean hypoxia inducible factor.

24. "HIF Compound" shall mean any molecule that stabilizes HIF through modulation of prolyl hydroxylase and/or asparaginyl hydroxylase.

25. "IND" shall mean an Investigational New Drug application, as defined in the U.S. Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or comparable filing in a foreign jurisdiction, in each case with respect to a Product for use within the Field.

26. "Indication" shall mean any given indication within the Field.

27. "Initiate" or "Initiation" shall mean with respect to a particular clinical trial for a Product, the initial dosing of the first patient in such trial in accordance with the protocol therefor.

28. "JDCA" shall mean the Japanese Definitive Collaboration Agreement between FibroGen and Astellas effective June 1, 2005.

29. "Marketing Approval" shall mean, with respect to each Product, approval in the Territory by the appropriate regulatory agency to market such Product for an Indication within the Field. It is understood that pricing or reimbursement approval shall constitute a part of the Marketing Approval. For purposes of the Milestone Payments triggered by Marketing Approval set forth below, the First Commercial Sale of a Product (excluding permitted sales for compassionate use — also referred to as named patient supply in Europe — pending diligent efforts to obtain Marketing Approval) shall trigger such

Milestone Payments (if not already triggered by the applicable Marketing Approval itself) solely in the following manner: a First Commercial Sale in an applicable country **[*]** shall trigger the corresponding Marketing Approval-based Milestone Payments, as applicable.

30. "Marketing Approval Application" or "MAA" shall mean, a New Drug Application or similar application as required under the U.S. Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder, or such similar filing in Europe, or a comparable filing for Marketing Approval in the Territory, in each case with respect to a Product for use within the Field.

31. "Net Sales" shall mean the gross amount billed or invoiced by Astellas, its Affiliates, and its Sublicensees to non-Affiliated third parties for the Product(s) in bona fide arm's length transaction, less the following deductions:

    31.1. credits, refunds or allowances, if any, given or made on account of rejection or return of the Product(s) or otherwise in respect of Products sold hereunder;

    31.2. trade, quantity and other discounts, as well as retroactive price adjustments in such amounts as are customary in the trade;

    31.3. compulsory government rebates whether now or hereafter existing;

    31.4. duties, customs, sales taxes, excise taxes, insurance and transportation charges actually paid to the extent included in the gross amount actually billed or invoiced, as appropriate; and

    31.5. charge back payments or rebates actually paid to wholesalers.

    In the event that Astellas, its Affiliates and its Sublicensees bundles sales of Products with sales of other products, or if any Product (a) is a combination product that contains an active pharmaceutical ingredient(s) (i.e., a chemical entity performing an identifiable therapeutic or prophylactic function) in addition to the active pharmaceutical ingredient that is the HIF Compound which constitutes that Product, or (b) is sold in combination with a specialized delivery device, then the parties shall negotiate in good faith an appropriate allocation of any amounts that would affect Net Sales.

    In the event that Astellas or any of its Affiliates appoints an exclusive distributor for a Product in one or more countries in the Territory subject to an obligation to promote and market the Product or perform other comparable activities for such Product in such countries and the distributor buys the Product from Astellas or its Affiliates at a reduced sales price to account for such distributor's costs of promotion or marketing or other comparable activities, the Net Sales of Product to such third party for the purposes of transfer pricing or royalties hereunder shall be adjusted upward to account for such reduction in sales price.

32. "Patent Expiration Date" shall mean the date of expiration (or, if applicable, invalidation) of the last patent in the Territory within the FibroGen Patents

containing a claim (a) which covers the composition of any Product, or (b) for which the entry of a Generic within the Field within the Territory would constitute infringement of such claim (irrespective of any license or sublicense granted under such claim). The JSC shall confirm the Patent Expiration Date (in part to allow for confirmation of the Development Termination Date) within six (6) months of the Effective Date, and shall confirm any changes thereto after the occurrence of an event (such as the designation of new Products or changes with respect to the FibroGen Patents) which would result in such a change.

33. "Phase I" shall mean human clinical trials, the principal purpose of which is preliminary determination of safety in healthy individuals or patients as required in 21 C.F.R. §312.21, or similar clinical study in a country other than the United States, and for which there are no primary endpoints relating to efficacy included in the protocol.

34. "Phase IIb" shall mean human clinical trials, for which the primary endpoints include a determination of dose ranges, if not already determined, and a preliminary determination of efficacy in patients with the Indication being studied as required in 21 C.F.R. §312.21, or similar clinical study in a country other than the United States which design is intended to enable the Initiation of the Phase III or Pivotal clinical trial.

35. "Phase III" or "Pivotal" shall mean human clinical trials, the principal purpose of which is to establish safety and efficacy of one or more particular doses in patients with the Indication being studied in a manner designed to be sufficient to support Marketing Approval for such Indication, as required in 21 C.F.R. §312.21(c), or similar clinical study in a country other than the United States. For purposes of clarity, in the event that a Phase IIb has not already occurred with respect to the Indication being studied, upon the Initiation of a Phase III or Pivotal clinical trial, such clinical trial shall also be considered the Initiation of a Phase IIb clinical trial.

36. "Preexisting Third Party Intellectual Property" shall mean any intellectual property rights, including without limitation all patents, trademarks, copyrights, and any applications therefor, including any applications for registration, issuance, or grant thereof, that are owned or Controlled by a third party and that are necessary for the practice of the license granted hereunder, the existence of which was discoverable or otherwise could have been known on or prior to the Effective Date and were not owned or Controlled by FibroGen as of the Effective Date.

37. "Product" or "Products" shall mean any HIF Compound designated by FibroGen for clinical development in an Anemia Indication in accordance with the terms herein. As of the Effective Date, each of FG-2216 and FG-4592 shall be deemed to be a Product. For the avoidance of doubt, Product shall include the finished form of a pharmaceutical product containing such a HIF Compound described above, whether or not other ingredients (active or otherwise) are contained in such product.

38. "Sublicensee" shall mean a third party to whom FibroGen or Astellas has directly or indirectly granted the right under FibroGen Technology in its respective territory to make, use or sell a Product. For purposes of this Agreement, FibroGen and Astellas shall not be deemed Sublicensees of the other.

39. "Technical Product Failure" shall mean (i) a **[*]** (as hereinafter defined) which is not attributed to Astellas' failure to fulfill its obligations hereunder (including, without limitation, such a **[*]** based upon results from completed or terminated toxicology or other preclinical studies provided, that for FG-2216 only, results generated pursuant to such a toxicology or other preclinical study performed by or on behalf of Astellas and approved by either FibroGen or the JDRC or performed by or on behalf of FibroGen may be considered for purposes of this subsection (i), and, provided, further that the seven preclinical studies identified on Exhibit C which have already been approved by the JDC shall be deemed approved by FibroGen — obtained after the Effective Date, in which case a party may require (upon written request) that the JSC retain an independent expert panel, such experts to be chosen in equal numbers by each of FibroGen and Astellas, to obtain an opinion as to whether such results constitute such a **[*]**, which opinion the JSC shall consider in good faith (and which procedure shall be subject to the timing provisions set forth in the third paragraph of the "Term and Termination" section below), (ii) a statistically significant (**[*]**) increase over placebo in **[*]**, or a statistically significant (**[*]**) increase over placebo and marketed recombinant erythropoietin products in **[*]** Products, (iii) a serious problem in the safety (including, without limitation, such serious problems based upon toxicology or other preclinical results obtained after the Effective Date) of all of the then existing Products not related to manufacture (provided such manufacturing problem may be remedied) occurs which prevents all of the then existing Products from obtaining required clearance for entering or continuing human clinical trials for all of the Core Indications (or which otherwise results in all Products being prevented from entering human clinical trials) for a period of **[*]** after such event occurs in the event no Product has yet received Marketing Approval, (iv) after a Product has obtained Marketing Approval, the Marketing Approvals in **[*]** for all Products on the market in such countries are revoked or suspended for a period of at least **[*]**, or (v) receipt of non-approvable letters from appropriate regulatory authorities for not less than **[*]** indications each. For the avoidance of doubt, results from clinical studies of **[*]** shall not by themselves form the basis of Technical Product Failure unless and until such results appear in studies in other Anemia Indications with the Product or otherwise arise with respect to commercial use of the Product and such other studies or commercial use are sufficient themselves without reference to the results of the **[*]** studies to trigger one of the instances of Technical Product Failure above (it being understood, for the avoidance of doubt, that results from such **[*]** studies shall not constitute grounds for either party to institute the expert panel procedure for the JSC described in (i) above).

40. "Territory" shall mean the countries listed in Exhibit B.

41. "Third Party Agreements" shall mean collectively those agreements between FibroGen and a third party existing as of the Effective Date, pursuant to which FibroGen obtained rights applicable to the development, manufacture, sale or use of Products hereunder (but excluding options or similar agreements to acquire such rights). If, after the Effective Date, FibroGen enters into an agreement to license or acquire rights from a third party with respect to Products or subject matter to be utilized in connection with Products, such agreements shall also be deemed Third Party Agreements for purposes of this Agreement.

42. "Valid Claim" shall mean a claim of an issued and unexpired patent within the FibroGen Patents, which claim has not been revoked or held invalid or unenforceable by a court or other government agency of competent jurisdiction from which no appeal can be or has been taken within the time period for doing so and has not been held or admitted to be invalid or unenforceable through re-examination or disclaimer, reissue, opposition procedure, nullity suit or otherwise.

License: FibroGen hereby grants an exclusive license to Astellas in the Field, with the right to sublicense to its Affiliates or third parties, under all FibroGen Technology to Commercialize (including to make, have made, use, sell, have sold, offer to sell and import) Products in the Territory.

Neither party shall Commercialize (directly or indirectly), nor license or authorize third parties or Affiliates to Commercialize FG-2216, FG-4592 or any other Products in the Territory for indications outside of the Field (or knowingly sell or supply any such Products to a third party or Affiliate for such purpose), during the term of the Agreement. However, in the event that FibroGen proposes to develop any Product for any indication outside of the Field it shall notify Astellas thereof, designating such indication (a "Designated Indication") in writing. Upon such designation, Astellas shall have the right to include in this exclusive license for the applicable Product solely for the proposed indication, and in the event it determines to exercise such right, such Designated Indication shall (without payment of any additional upfront fees, milestones or other consideration except for those payments already provided for hereunder) be added to the Field (and included in the license to Astellas hereunder) solely with respect to the applicable Product(s) and solely for so long as such compound is a Product and is being Commercialized for such Designated Indication (i.e., none of (a), (b) and (c) below have occurred), after which time period the Designated Indication shall be immediately removed from the Field for such Product (for the avoidance of doubt, Astellas shall have no rights hereunder with respect to the Designated Indication except with respect to each applicable Product for which FibroGen originally proposed or developed such Designated Indication, and all rights to such Designated Indication for a given Product shall terminate upon (a) the permanent cessation (excluding, for example, suspension, termination or completion pending further review, consideration or development planning) of all clinical studies by both parties with respect to such Product for such Indication prior to Marketing

Approval in such Indication, (b) the termination of all Marketing Approvals for such Indication without either party intending or considering to restore or replace any such Marketing Approval, or (c) the decision of the JSC to permanently cease all Commercialization of such Product in such Indication). If Astellas chooses to join development for such Designated Indication, such Designated Indication shall be treated as a Joint Indication in accordance with the provisions therefor below, and Astellas shall be responsible for 50% of development costs for such Designated Indication in accordance with the Transatlantic Clinical Development Plan and other provisions governing pursuit of Joint Indications herein, otherwise any subsequent joining of development for such Designated Indication by Astellas shall be subject to the rules governing adoption of a previously independently-pursued Indication as provided below. In the event the addition of a Designated Indication raises issues that require amendment of the terms of this Agreement with respect to such Designated Indication, the parties shall confer in good faith regarding the adoption of any such amendment. For the avoidance of doubt, FibroGen shall have no right to, and shall not, Commercialize (directly or indirectly, by license, supply of Product or otherwise) any Product for a Designated Indication in the Territory during the term of this Agreement.

Except for Astellas' Commercialization of Products in accordance with the other terms and conditions of this Agreement (directly and/or through Affiliates and permitted Sublicensees), neither party shall Commercialize (directly or indirectly), nor license or authorize third parties or Affiliates to Commercialize any HIF Compound (whether or not a Product), within the Field, in the Territory (or knowingly sell or supply HIF Compounds to a third party or Affiliate for such purpose) during the term of the Agreement (which for the avoidance of doubt does not prohibit Astellas nor FibroGen from conducting research nor FibroGen from Commercializing HIF Compounds other than Products in the Territory for any use outside the Field, subject to its obligations with respect to Products hereunder). Astellas agrees that during the term of this Agreement (i) it will not (and will not authorize any third party to) Commercialize any Product for use outside the Field or outside the Territory, (ii) it will not (and will not authorize any third party to) provide any supplies of any Product to any third party which Astellas knows or has reason to know (including because Astellas has been provided notice by FibroGen thereof) is being marketed, sold or distributed for use outside the Territory, (iii) it will use commercially reasonable efforts (which level of efforts shall not take into account any financial gain of Astellas from sales of such Products outside the Field) to not (and will not authorize any third party to) provide any supplies of Product to any third party which Astellas knows or has reason to know (including because Astellas has been provided notice by FibroGen thereof) is being marketed, sold or distributed outside the Field, (iv) with respect to any third party (including without limitation any Affiliates, Sublicensees, distributors) marketing or distributing Product in the Territory pursuant to an agreement with Astellas, it will enforce the terms of any such agreements in the event such entity distributes such Product outside the Territory to prevent such ex-Territory distribution, (v) it will not (and will not authorize any third party to) conduct or sponsor, or knowingly provide any supplies of any Product for use in, any clinical trial designed to demonstrate that a Product can be used outside the

Field, or (vi) it will not (and will not authorize any third party to) seek regulatory approval of, or label, a Product for use outside the Field. Astellas further agrees that for a period of **[*]** following the termination of this Agreement by Astellas other than For Cause, it will not Commercialize (directly or indirectly), nor license or authorize third parties or Affiliates to Commercialize any HIF Compound (whether or not a Product), in the Territory (or knowingly sell or supply HIF Compounds to a third party or Affiliate for such purpose) (which, for the avoidance of doubt, does not prohibit Astellas from conducting research).

The Milestone Payments and the transfer or royalty payments to be made under "Cost of Supply; Transfer Price Payments" section have substantial present value to FibroGen. Consequently, if, (a) during the term of this Agreement, Astellas performs any Commercialization activities outside this Collaboration with respect to any HIF Compound for use as a therapeutic, Astellas shall notify FibroGen immediately in writing, and even if Astellas establishes **[*]** that such activities are completely independent of FibroGen and its technology and information (including, without limitation, FibroGen Technology), FibroGen shall have the right to terminate the Agreement following notice to Astellas if Astellas has not cured within **[*]** (subject to reasonable extensions solely as required to comply with applicable laws and regulations for cure activities that cannot be completed in such time period without violation of such laws and regulations including, without limitation, regulatory requirements concerning transfer or winding-down of clinical trials) any such activities, including, **[*]**, and (b) in the event that Astellas acquires an entity or all or substantially all of the assets of an entity or is acquired by or merges with an entity and such entity is Commercializing any HIF Compound for use as a therapeutic, Astellas shall notify FibroGen immediately of such acquisition and whether it shall (i) divest itself of such HIF Compound(s), in which event it shall have **[*]** from the date of such acquisition in which to divest itself of such HIF Compound or (ii) cure the Commercialization of any such HIF Compound, within **[*]** from the date of such acquisition, subject to such reasonable extensions solely as required to comply with applicable laws and regulations for cure activities that cannot be completed in such time period without violation of such laws and regulations including, without limitation, regulatory requirements concerning transfer or winding-down of clinical trials) such activities (as described above), and in the event that Astellas fails to meet the timelines for divestiture or cure under (i) and (ii), respectively, of this section FibroGen shall have the right to terminate this Agreement upon notice to Astellas (for the avoidance of doubt, in the case of an event under (b) which Astellas cures by either (i) or (ii), **[*]**). Astellas will not use and apply any of FibroGen's proprietary know-how provided to Astellas by or on behalf of FibroGen under this Agreement or any other Agreement relating to the subject matter hereof and related to HIF Compounds, the Field, HIF, except as part of the Collaboration (including, for the avoidance of doubt, in performing its obligations or exercising the rights granted to Astellas hereunder) for the avoidance of doubt, during the term of this Agreement or at any time after the expiration or termination of this Agreement.

Right of Negotiation: During the term of this Agreement, prior to FibroGen licensing rights to any

Products in the Field in countries outside the Territory (except for North America (i.e., the US, Canada and Mexico) and Japan) (and, for the avoidance of doubt, with respect to a given country only prior to the execution of a license for such rights in such country), FibroGen shall notify Astellas in writing of its intent to license and Astellas shall have **[*]** to negotiate a license for such rights (during which time FibroGen and Astellas shall make appropriate personnel available for discussions about such a license); provided, however, that if FibroGen fails to execute a license with respect to such countries for the applicable Product or Products within **[*]** after the end of any such sixty day period, the foregoing negotiation right shall again apply with respect to the applicable countries and FibroGen must provide notice for a new **[*]** negotiation period as provided above before licensing such territories for the applicable Product or Products. For the avoidance of doubt, the right of negotiation provided for in this paragraph shall apply to any acquirer or permitted assignee of FibroGen, but shall not apply to any FibroGen sublicensee under this Agreement with respect to a given country so sublicensed, provided the foregoing negotiation rights were afforded to Astellas prior to the grant of such sublicense for such country.

Right to Sublicense: Astellas' right to sublicense to third parties, as provided in the first paragraph of the License Section of this Agreement, is **[** * **]**, provided that **[** * **]**. It shall not be **[** * **]** for a sublicense to any person that **[** * **]**. In the event that Astellas enters into such a sublicense with a third party (which, for the avoidance of doubt, excludes Affiliates, provided that, for the avoidance of doubt, the obligations of Astellas with respect to any activities performed under this Agreement by any Affiliates shall apply to such Affiliates), such sublicense shall (i) obligate any such third party to notify Astellas immediately if (a) such sublicensee initiates a Phase II clinical trial or otherwise engages in Commercialization activities from and after such point of initiation of a Phase II clinical trial) with human therapeutics for the treatment of an Anemia Indication, or (b) the sublicensee is acquired by, merged with, or otherwise comes under control of or common control with any entity that is Commercializing (from and after such point of initiation of a Phase II clinical trial) with a human therapeutic for the treatment of an Anemia Indication, and (ii) provide Astellas the right to terminate the sublicense if such an event described in (i) above occurs. Upon receipt of any such notice from an Astellas sublicensee, or absent such notice, upon becoming aware of any of the events described in (i) (a) or (b) above, Astellas shall exercise its right to terminate the sublicense unless the JSC approves otherwise.

For avoidance of doubt, nothing in this Agreement is intended to preclude FibroGen from licensing, assigning or otherwise transferring rights to any Products in North America and in such case, FibroGen may delegate any obligations set forth herein to such sublicensee or transferee as appropriate; provided, however, for the avoidance of doubt, no such sublicense, transfer or delegation shall release or limit FibroGen's obligations to Astellas under the terms and conditions of this Agreement.

Upon execution of this Agreement, FibroGen shall provide DFCI appropriate notice of Astellas' grant of sublicenses to (i) its Affiliates hereunder and (ii) future permitted sublicensee upon consent by FibroGen to grant such sublicense.

Designation of Products: In addition to FG-2216 and FG-4592, a HIF Compound shall become a Product hereunder when any such HIF Compound owned or Controlled by FibroGen is so designated by FibroGen (by notice to Astellas as described below) prior to the Final Development Termination Date. FibroGen shall provide notice to Astellas of any such designation, identifying the HIF Compound subject thereto.

FibroGen shall consult with Astellas with respect to HIF Compounds in research and development by FibroGen that show promise for Anemia Indications and shall provide to Astellas information (other than structures) as reasonably necessary to evaluate such HIF Compounds in connection with the designation process (and generally in response to reasonable, periodic requests from Astellas and for providing periodic status reporting to the JSC), including without limitation the information relating to patent situations in the Territory. Without imposing any obligation on the part of FibroGen to identify or generate any additional HIF Compounds, FibroGen shall make good faith and diligent efforts to present potential Products that it reasonably believes offer substantial clinical benefit over then-current Products from such HIF Compounds owned or Controlled by FibroGen to the JSC for review, provided that FibroGen shall present results from any Phase II clinical trial conducted in the Field with a potential Product to the JSC for review. If Astellas, through the JSC, commits to a Development Program (as described in the development sections below) for Commercialization of such HIF Compounds, then FibroGen shall designate such HIF Compounds as Products. For the avoidance of doubt, a given HIF Compound shall be deemed designated as a Product (and written notice thereof provided to Astellas) once FibroGen (directly or indirectly, including by a licensee) Initiates a Phase III clinical trial with such HIF Compound in patients for an Anemia Indication prior to the Final Development Termination Date. Once designated as a Product(s), a given compound shall remain a Product until (a) the permanent cessation (excluding, for example, suspension, termination or completion pending further review, consideration, development planning or regulatory discussions) of all clinical studies by both parties with respect to such Product for all Indications prior to Marketing Approval, (b) the termination of all Marketing Approvals for such Product without either party intending or considering to restore or replace at least one such Marketing Approval or obtain a new Marketing Approval, or (c) the decision of the JSC to permanently cease all Commercialization of such Product for all Indications (provided such cessation of development is not due to the compound having already received Marketing Approval or otherwise being commercially successful), and upon the occurrence of any such event, said HIF Compound shall no longer be a Product hereunder and all rights granted to Astellas by FibroGen hereunder to such HIF Compound shall revert to FibroGen. For the avoidance of doubt, when a given HIF Compound (including FG-2216 and FG-4592) becomes a Product, such designated Product shall include all salts, esters, complexes, chelates, crystalline and amorphous morphic forms, pegylated forms, enantiomers (excluding regioisomers), prodrugs, solvates, metabolites and catabolites of the active pharmaceutical ingredient that is the HIF Compound of such Product, except to the extent any of the foregoing has a different basic chemical structure than the active pharmaceutical ingredient that is the HIF Compound of such Product.

During the **[*]** period beginning on the date that is **[*]**, (each such period, a "Look-in Period") Astellas shall be given the opportunity to review and to perform due diligence on the HIF Compounds currently being researched and developed by FibroGen for the purposes of determining whether it shall continue, after such Development Termination Date, development under the Agreement of additional Products other than those Products already designated under this Agreement. In the event the **[*]** is accelerated (due to **[*]** or similar causes), such that Astellas does not get the benefit of such a **[*]** look period at such time, such **[*]** shall be extended to the extent required to allow for such a **[*]** period.

During any aforementioned Look-in Period, FibroGen shall provide such information, consultation and assistance (excluding disclosure of actual compound structures) as reasonably requested by Astellas to allow Astellas to conduct diligence on all eligible HIF Compounds of FibroGen that show some promise for Anemia Indications and to determine if Astellas desires to continue with Commercialization of additional Products other than those Products already designated under this Agreement under the Collaboration. Astellas shall indicate in writing, prior to such Development Termination Date, whether it wishes to extend this Agreement beyond the current (at that time) term and fund further pre-clinical and clinical development (as more fully described below) for Commercialization of additional potential Products other than those Products already designated under this Agreement under the Collaboration after the Development Termination Date. If Astellas so notifies FibroGen in writing prior to such Development Termination Date of its intent to extend the Agreement: (a) the term of the Agreement shall be extended for a minimum of ten (10) years from the then applicable Development Termination Date and the Development Termination Date itself shall be reset for a minimum of five (5) years after the then applicable Development Termination Date, with both such dates otherwise subject to extension (e.g., depending on the Patent Expiration Date) as provided for under the terms of this Agreement; (b) Astellas shall commit to participating in the Development Program for any new Product designated by FibroGen hereunder during the term of this Agreement (including the Core Indications as set forth below), in accordance with the terms hereof (including by Astellas funding fifty percent (50%) of the Transatlantic Clinical Development Plan (as defined below) therefore); and (c) Astellas shall fund fifty percent (50%) of any preclinical development work of any newly designated Products conducted in accordance with a JSC approved preclinical development plan following Product designation by FibroGen, provided that all Indications for which a Product has received Marketing Approval in the Territory or shall receive Marketing Approval in the Territory in the **[*]** following such Development Termination Date shall be the only Core Indications for purposes of this Agreement with respect to Products designated after such Development Termination Date.

Governance: The parties shall form a Joint Steering Committee (JSC) that will oversee and coordinate all activities of the Collaboration and manage two subcommittees:

A. the Joint Development and Regulatory Committee (JDRC), and

B. the Joint Commercialization Committee (JCC).

Each Subcommittee is co-chaired by one representative from each party and responsible for planning and implementation of actions and activities to support the Products.

Joint Steering Committee: A Joint Steering Committee (JSC) shall be formed with an equal number of representatives from FibroGen and Astellas (which such number shall initially be set at **[*]** for each party, unless and until the parties agree upon a different number). The JSC shall have as its overall purpose the responsibility of overseeing and reviewing (i) development, registration, marketing, manufacturing, and sale of the Product in the Territory for the Core and Joint Indications, (ii) the status and implementation of the Transatlantic Clinical Development Plan, and (iii) coordination issues in worldwide Commercialization of Products marketed both within and outside the Territory. The JSC shall also be responsible for resolving any disputes that cannot be decided at the subcommittee level. The JSC shall meet at least **[*]** times per year (**[*]** of which may be by teleconference), unless the parties agree otherwise. Actions to be taken by the JSC (as well as the JDRC and JCC) pursuant to the terms of this Agreement shall be taken only following the unanimous vote of the members of the JSC (or such other committee as the case may be). The JSC shall attempt to have all decisions approved by all members of the JSC. Except as otherwise set forth herein, disputes that cannot be resolved by the JSC shall be resolved via the Dispute Resolution process outlined below.

Joint Development and Regulatory Committee: A Joint Development and Regulatory Committee (JDRC) shall be formed with an equal number of representatives from FibroGen and Astellas (to be set by the JSC or as otherwise agreed by the parties). The JDRC shall have as its overall purpose the responsibility of achieving the necessary Marketing Approvals for Products in the Territory through a transatlantic Development Program. Disputes arising at the JDRC level shall be elevated to the JSC for resolution.

Joint Commercialization Committee: A Joint Commercialization Committee (JCC) shall be formed with an equal number of representatives from FibroGen and Astellas. The JCC shall have as its overall purpose the responsibility of coordinating the launch of the Product(s) in the Territory including trademarking, however, Astellas shall lead and retain control over marketing and commercialization in the Territory. Disputes arising at the JCC level shall be elevated to the JSC for resolution.

Development: During the term of the Agreement, Astellas shall use commercially reasonable efforts to develop Products in the Territory and FibroGen shall use commercially reasonable efforts to develop Products in North America, in each case for the Core Indications and all other indications for which it agrees to pursue development hereunder. During the term of this Agreement, Astellas will use commercially reasonable efforts to sell, market and distribute the Products for Indications for which such Products have received Marketing Approval. Notwithstanding the foregoing, in the event that Astellas Commercializes any product that **[*]** for an Anemia Indication outside of this Agreement (a “Competing Product”), commercially reasonable efforts shall be determined without consideration of the fact that it is (i.e. as if it were not) Commercializing any such Competing Product.

FibroGen and Astellas will coordinate through the JSC and the JDRC a development strategy for North America and the Territory and will conduct those studies and pursue such clinical trials and regulatory filings that are necessary and sufficient for Marketing Approval of the Products therein (the "Transatlantic Clinical Development Plan"). The JDRC shall periodically review and update the Transatlantic Clinical Development Plan as appropriate, provided that in any event all changes and updates to the Transatlantic Clinical Development Plan shall require approval by the JSC. Astellas shall be responsible for handling regulatory filings and approvals in the Territory and shall hold and own all filings, approvals and registrations for the Products in the Territory, which shall be assigned to FibroGen upon the termination of this Agreement (excluding expiration or termination by Astellas for FibroGen's breach). The parties shall regularly exchange information and status updates with respect to their activities conducted and results obtained under the Transatlantic Development Plan (including by providing periodic status updates to the JDRC) and shall provide such assistance as is reasonably requested by the other party in its performance of the Transatlantic Development Plan.

Either party may decide whether or not to pursue Indications outside of the Core Indications at any time in the Development Program. If either party decides to pursue development of such an additional Indication(s), it shall notify the other party so that the parties can create and execute a joint development plan in accordance with the provisions herein (e.g., incorporation into the Transatlantic Clinical Development Plan as well as, if applicable, local Product development plans for activities specific to a party's respective territory) for such Indication (a "Joint Indication"). If, however, either party decides not to pursue such non-Core Indication which the other party is pursuing, such Indication shall not be a Joint Indication and the other party may pursue such Indication independently; provided, however, that if the declining party later decides to join in the development of any such other Indications outside of the Core Indications it shall be considered a Joint Indication and such joining party must work with the existing developing party to develop a new plan hereunder that is based on, and is designed to work with (and not interrupt), the existing developing party's development plan and timelines for its respective territory, and such joining party shall reimburse the developing party for **[*]** of any development costs incurred previously by such developing party for that Indication from the Effective Date.

Reporting of adverse experiences under this Agreement shall be governed by the terms and conditions of Section 4.4.2 of the JDCA (as reasonably applied to this Agreement — e.g., "Lead Compound" therein shall refer to "Product" for purposes of this Agreement), provided that Astellas shall have responsibilities regarding PSURs in the Territory, such documents to be subject to final approval by the JDRC and further provided that non-serious adverse events are reported from Astellas to FibroGen and from FibroGen to Astellas, on a quarterly basis, as determined by both parties at the JDRC for the respective compound. Notwithstanding the foregoing, the parties shall meet and agree upon a

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

pharmacovigilence agreement that shall comply with applicable laws and regulations and shall include by way of example, but not limitation, (i) establishment and maintenance of a global safety database in accordance with mutually agreed specifications, terms and conditions, which will provide each party with access thereto in order to fulfill their respective reporting duties and obligations, and (ii) review and approval of PSURs in North America and the Territory by the JDRC to the extent compatible with applicable laws and regulations.

Subject to the confidentiality obligations hereunder, each party shall provide the other party access to, and, where practical, copies of, preclinical and clinical data (including raw data thereof), analyses, reports, protocols and correspondence, as well as all regulatory filings and approvals, in such party's possession with respect to the Products at reasonable times and upon reasonable request by the other party. The other party shall have the right to use and the right to reference such information and materials, and the associated regulatory filings and approvals, for the purpose of the other party's Commercialization activities for the Products hereunder (including for the purpose of including and referencing the same in its regulatory filings for Products in its respective territory). Each party shall reasonably cooperate with the other, including by executing such documents, as may be necessary to evidence or implement the foregoing rights of reference with respect to regulatory filings.

For the avoidance of doubt notwithstanding anything to the contrary in this Agreement, neither party shall be obligated hereunder (a) to develop (or fund development of) a Product for a non-Core Indication, unless the parties have otherwise agreed to develop a Product for such an Indication, e.g., without limitation, a Designated Indication or a Joint Indication, nor (b) to develop (or fund development of) more than two Products at any one time (plus, if applicable, potentially a pre-clinical development program for a third Product following Astellas' decision to extend the Collaboration after a Development Termination Date) unless FibroGen designates a Product based upon Astellas' commitment, through the JSC, to Commercialize such Product hereunder in accordance with the "Designation of Product" Section, it being understood and agreed that such limitations on the number of Products a party is obligated to develop shall exclude for the purposes of such calculation Products for which Marketing Approval has been received. Either party may decline to pursue development of any Product in excess of the two or three Products limits specified above, provided that if the declining party later decides to join in the development of any such other Product, such joining party shall work with the existing developing party to develop a new plan hereunder that is based on, and is designed to work with (and not interrupt), the existing developing party's development plan and timelines for its respective territory, and such joining party shall reimburse the developing party for **[** * **]** of any development costs incurred previously by such developing party for that Product from the Effective Date to the extent not already shared.

Development Plan: Astellas and FibroGen each agrees to pursue Marketing Approval of the Core Indications and Joint Indications in the Territory and North America, respectively, on a concurrent basis. Astellas and FibroGen will develop and agree to the initial

Transatlantic Clinical Development Plan for such concurrent development within 6 months of the signing of the Agreement and until then, the parties shall cooperate on a reasonable transition of Product development to the Collaboration based on FibroGen's existing clinical development plan as coordinated through the JDRC. For avoidance of doubt, FibroGen's current or planned clinical studies with FG-2216 for **[*]** in Phase II, treatment of anemia in patients with chronic kidney disease not undergoing dialysis in Phase IIb, treatment of anemia in patients with chronic kidney disease undergoing dialysis in Phase Ib/IIa, treatment of anemia in patients with chronic kidney disease undergoing dialysis in Phase IIb, and treatment of **[*]** in Phase II, and FG-4592 in Phase IIa as set forth in Exhibit D attached hereto shall be included in the initial Transatlantic Clinical Development Plan unless later modified by the JDRC.

Each party shall have the right to designate two (2) Priority Indications (which designation can be adjusted on an annual basis by no more than one changed Indication per year), so long as any such indication is not then approved for treatment with recombinant erythropoietin in the respective Territory. In the event that the parties cannot agree on a matter relating to a Priority Indication whether designated by FibroGen or Astellas (following appropriate efforts to resolve such matters in the JDRC and JSC) resulting in a significant delay (e.g. **[*]**) from the timeline in the Transatlantic Clinical Development Plan, either party shall have the right to pursue the affected Priority Indication in its respective territory without involvement of the JSC, the JDRC and the other party; provided, however, that in such event (a) each such party shall fund its own development costs for such Indication, (b) in the event that a party desires to use the other party's data (or references to regulatory filings) for obtaining approval for such Indication in its own territory, such party shall reimburse the other party for **[*]** of any development costs incurred previously by such other party to generate such data and make such filings for such Indication (excluding any portion of such costs that were already subject to sharing before the foregoing was triggered).

FibroGen and Astellas agree to use commercially reasonable efforts to pursue development of **[*]** on an expedited approval basis in North America and the EU, unless mutually agreed by the parties. Results from clinical studies of **[*]** shall not form the basis of the termination of this Agreement.

In the event that either party is acquired by, or grants a license to develop and market a Product for a Core Indication to another company that manufactures and markets recombinant erythropoietin (whether at the time of the acquisition or license grant, or thereafter), and thereafter, a significant delay (e.g. 3 months) occurs on a Core Indication (or the relevant Core Indication in case of said grant of license) beyond the timeline set forth in the Transatlantic Clinical Development Plan in effect at the time of the acquisition, at the time of said grant of license, as applicable, as a result of a failure of the parties to agree within the JDRC or JSC or a failure of cooperation by the acquired party or its successor, the licensor party or its licensee, as applicable, in accordance with the terms of this Agreement, then the other party shall have the right to pursue such Core Indication in its respective territory without involvement of the JSC, the JDRC or the other party, or its successor; provided, however, that in such event (a) each such party shall fund its

own development costs for such Core Indication, and (b) in the event that a party desires to use the other party's data (or references to regulatory filings) for obtaining approval for such Indication in its own territory, such party shall reimburse the other party for **[*]** of any development costs incurred previously by such other party to generate such data and make such filings for such Core Indication (excluding any portion of such costs that were already subject to sharing before the foregoing was triggered).

Development Costs: All costs and expenses (including reasonable FTE costs and the Fully Burdened Cost of clinical supplies of the Product) incurred by either party for the Transatlantic Clinical Development Plan after the Effective Date shall be reported, adjusted and reconciled between them on a quarterly basis so that FibroGen and Astellas are to share such costs and expenses equally. For avoidance of doubt, the foregoing costs and expenses are exclusive of those relating to Japan, which are governed by the terms of the JDCA. Any costs and expenses to be reimbursed under this Agreement shall be limited to amounts reasonably incurred and fairly allocated to development activities hereunder and shall be consistent with the Transatlantic Clinical Development Plan, or other plan approved by the JSC or JDRC and with the cost principles of mitigating the total cost of the Development Program as much as possible by adequately allocating the work among FibroGen, Astellas and their respective contractors, the specifics of which will be agreed upon hereafter between the parties. At least two (2) months before the beginning of each calendar year, the JDRC shall prepare a detailed annual budget for the calendar year covering the development activities of each party specified the Transatlantic Clinical Development Plan based upon the cost principles of this paragraph for review and approval by the JSC. The JDRC shall review the annual budget at least quarterly and propose any necessary amendments, such amendments shall be subject to review and approval by the JSC. In the event that a party expects to exceed the annual budget by more than **[*]** in any given quarter or by more than **[*]** for a given year, the party shall promptly notify the JDRC and the JDRC shall determine whether amendment of the annual budget is reasonably required and, if so, propose an amendment of the budget, which shall be subject to the review and approval of the JSC. In the event that a party exceeds the annual budget (with any JSC approved amendment thereto) by more than **[*]** in any given quarter or **[*]** for the annual budget, the party shall not be in breach of this agreement as a result of exceeding the budget; provided, however, that the party shall not be entitled cost sharing with the other party in accordance with the Section "Development Costs" for that portion of its costs and expenses in excess of the annual budget for that quarter plus **[*]** or that year plus **[*]**, as applicable, except that development costs incurred in conducting the Transatlantic Clinical Development Plan in excess of **[*]** for the quarter or **[*]** for the year, as applicable, of the amounts so budgeted shall also be reimbursed if both Parties approve the excess Development Expenses (either before or after they are incurred), and each party shall determine in good faith whether such development costs were reasonably incurred in the performance of the Transatlantic Clinical Development Plan. Within six (6) months of the Effective Date, the JSC shall establish a procedure for controlling and monitoring the budget to ensure that all clinical trials approved in the Transatlantic Clinical Development Plan shall have appropriately allocated and approved budgets in a timely manner.

Astellas and FibroGen shall conduct all clinical and regulatory development activities specifically required in the Territory and North America, respectively, if any (i.e., to the extent not included in the Transatlantic Clinical Development Plan) at each of their own respective cost and expense in accordance with a local development plan to be approved by the JSC and JDRC (provided that the budget and costs therefore shall not be subject to JSC or JDRC approval).

FibroGen and Astellas will negotiate in the Transatlantic Clinical Development Plan the reasonable allocation of the costs for the Core Indications incurred from the Effective Date until the date such plan takes effect, for the currently open clinical trials in the Territory.

Manufacturing & Supply: Each of FibroGen and Astellas may manufacture (which shall include have manufactured by third parties for purposes of this Agreement) Product for development, use and sale in the Territory. In the event that FibroGen manufactures, FibroGen shall provide Astellas with Product in the form of Bulk Product (as described in the JDCA) and FibroGen shall be obligated to maintain two separate, validated manufacturing sites within **[*]**.

The parties agree that FibroGen shall manufacture and supply all of both parties' requirements for Product for non-commercial and commercial use for so long as Astellas desires FibroGen to do so, provided, however, that during such period of time as FibroGen is manufacturing and supplying all Product on behalf of Astellas, Astellas shall not grant to any Sublicensee or other third party (which, for the avoidance of doubt, excludes Affiliates) any right to make or have made any Product. Prior to completion of the first Phase III clinical trials for the Products, the parties shall negotiate and enter into a commercial supply agreement with respect to the commercial supply of Products to Astellas by FibroGen, consistent with the terms and conditions hereof and otherwise containing customary terms and conditions.

In connection with the supply of any Product for non-commercial use: (a) for supplies needed for the Transatlantic Clinical Development Plan, FibroGen shall provide such supplies in accordance therewith or, if not so specified, as necessary for the conduct of such trials on the timelines specified in such Transatlantic Clinical Development Plan, (b) for supplies needed to conduct trials specific to the Territory and not part of the Transatlantic Clinical Development Plan, Astellas shall provide FibroGen with a firm purchase order reasonably prior to its requirements as mutually agreed by the parties. FibroGen shall provide such Product to Astellas as soon as practicable within such time period, subject to the reasonable lead time requirements of third party contract manufacturers. All forecasts shall be prepared in good faith in order to facilitate FibroGen's manufacture and shipment of the Product in compliance with this Agreement. All Products supplied by FibroGen to Astellas hereunder (whether for commercial or non-commercial use) shall be manufactured in compliance with applicable laws and regulatory requirements, including cGMP and ICH, and Marketing Approvals therefor, and in accordance with the terms and conditions of Section 12.4 through 12.12 of the JDCA (as reasonably applied to this Agreement, including that shipment shall be Ex-Works (Incoterms 2000)) and shall conform to the specifications therefore.

In connection with the supply of any Product for commercial use in the Territory upon FibroGen's request, Astellas and FibroGen shall negotiate in good faith for inclusion in the commercial supply agreement appropriate forecasting and firm purchase order lead times, taking into consideration the reasonable notice requirements of FibroGen and its third party manufacturers. All forecasts shall be prepared in good faith in order to facilitate FibroGen's manufacture and shipment of the Product in compliance with this Agreement.

In the event that Astellas determines to manufacture, whether directly or through Affiliates or third parties, Product for the Territory, Astellas shall provide FibroGen with not less than **[*]** notice, or such other notice as reasonably required to comply with FibroGen's obligations to third party manufacturers (for the avoidance of doubt, manufacture by Astellas' Affiliates or other third parties at the direction of Astellas or its Affiliates in breach of this sentence shall be deemed Astellas' breach); provided, however, that in the case of FibroGen's material failure to supply Astellas' reasonably forecasted commercial requirements under the terms and conditions contained in the supply agreement, Astellas may initiate the process of taking over manufacturing its own requirements immediately upon reasonable notice to FibroGen with a reasonable opportunity to cure. In the event that Astellas determines to manufacture Products for the Territory hereunder, FibroGen shall provide to Astellas such information (including know-how, processes, procedures, formulas and protocols), consultation and assistance as is reasonably necessary for Astellas and/or its contract manufacturer to set and implement manufacturing operations for the Product and to manufacture Products for the Territory (at Astellas' expense unless resulting from FibroGen's material and uncured breach of its manufacture and supply obligations hereunder or under the supply agreement, provided, that, a force majeure event shall not be considered a material breach of the obligation to supply under this Agreement or the supply agreement).

Cost of Supply; Transfer Price Payments:

For Products to be used for a non-commercial purpose in the Territory (as described below), (a) FibroGen's Fully Burdened Cost therefore shall be divided equally between the parties to the extent such supplies are for use in conducting the Transatlantic Clinical Development Plan, and (b) Astellas will pay FibroGen's Fully Burdened Cost of such Products to the extent (i) such supplies are for use by Astellas other than as part of the Transatlantic Clinical Development Plan or (ii) such supplies are for use as promotional samples to be disseminated by Astellas.

For Products to be used for a commercial purpose in the Territory (as described below), if FibroGen manufactures Product, Astellas will pay to FibroGen a transfer price based upon a good faith estimation as agreed by the parties equal to **[*]** of Net Sales on Net Sales up to $**[*]** US dollars per year in the Territory, and **[*]** on Net Sales above $**[*]** US dollars per year in the Territory, such price to be set at the beginning of each calendar year for the upcoming year, with a reconciliation of such transfer price paid for Products to conform to the actual Net Sales on a quarterly basis for such Products (with a corresponding payment or

credit adjustment made between the parties so that Astellas will have paid the -amounts based on actual Net Sales for such Products, rather than the estimated transfer price, after applying such reconciliation). If Astellas manufactures Products, Astellas will pay to FibroGen **[*]** of its Net Sales on Net Sales up to $**[*]** US dollars per year in the Territory, and **[*]** on Net Sales above $**[*]** US dollars per year in the Territory with respect to such Products, to be paid and calculated on a quarterly basis. In the event that both FibroGen and Astellas manufacture, calculation of Net Sales within the Territory shall be aggregated for the purposes of calculation of the $**[*]** annual threshold. In the event that FibroGen materially fails to manufacture and supply Astellas' requirements for Products for the Territory under the commercial supply agreement (following reasonable opportunities to cure such failure in accordance with such supply agreement), and Astellas determines to manufacture Product for the Territory, Astellas shall be entitled to reduce the foregoing payments to FibroGen by the amount of its fully burdened manufacturing costs of Products (so that it is incurring the same aggregate amount with respect to Product supply and sale that it would have incurred if FibroGen was manufacturing such Product). The foregoing transfer price and royalty rates shall be reduced from **[*]** down to **[*]**, on a country-by-country and Product-by-Product basis upon the first to occur of (a) the onset of Generic Competition with respect to a particular Product in a particular country, or (b) the expiration (or invalidation, revocation or unenforceability, as the case may be) of the last Valid Claim within the FibroGen Patents in a particular country that cover the particular Product in such country (provided that, with respect to countries in which there are no such Valid Claims to begin with, **[*]**, (ii) the onset of Generic Competition in such country as per (a) above, or (iii) expiration (or invalidation, revocation or unenforceability, as the case may be) of the last Valid Claim within the FibroGen Patents that cover the particular Product **[*]**.

In the event that FibroGen is manufacturing Product and the weighted average percentage of payment amount for supply of the FibroGen-manufactured Products per unit (across the entire Territory) drops below **[*]** as provided above due to Generic Competition or patent expiry, FibroGen shall have the following **[*]** protection: if the **[*]** Percentage on the Products for FibroGen fall below **[*]** after the entry of Generic Competition, FibroGen shall have the right to renegotiate the manufacturing and supply payment terms, or terminate the supply obligations. If FibroGen elects to terminate (or the parties fail to reach new terms following negotiation as per below), Astellas shall have the right to manufacture the product under the terms and conditions to be then agreed upon between FibroGen and Astellas, and FibroGen shall upon request continue to provide Product for a reasonable time to facilitate technology transfer for the manufacturing process. If FibroGen elects to renegotiate, FibroGen and Astellas shall use best efforts in good faith to renegotiate reasonable terms.

All transfers of Products for use following Marketing Approval shall be deemed transfers for a commercial purpose, except transfers for the purpose of conducting clinical trials, which shall be considered transfers for a non-commercial purpose. All transfers of Products for use as samples shall be at the Fully Burdened Cost of such Products such price to be set at the beginning of each calendar year for the upcoming year.

Upfront and Milestone Payments to FibroGen: In return for the foregoing rights Astellas shall pay FibroGen the following installments (except for (i), within thirty (30) days of the occurrence of the applicable event below):

i) $40 million US dollars within fourteen (14) business days in Japan of execution of this Agreement, $40 million US dollars within fourteen (14) business days in Japan of the earlier of the execution of the Detailed Commercialization Agreement (as defined below) or the conversion of the Agreement into the final operative Agreement, $70 million US dollars on January 31, 2007, $70 million US dollars on January 31, 2008, and $80 million US on January 31, 2009 (collectively, the "Upfront Payments");

ii) $40 million US dollars upon Initiation of the first Phase IIb clinical trial (provided such trial is included within the Transatlantic Clinical Development Plan) for a first Product in any of the Core Indications (except for **[*]**) in any country in the EU or the US;

iii) $**[*]** US dollars upon Initiation of the first Phase IIb clinical trial (provided such trial is included within the Transatlantic Clinical Development Plan) for a second Product in any of the Core Indications (except for **[*]**) in any country in the EU or the US;

iv) $50 million US dollars upon the Initiation of the first Phase III or Pivotal clinical trial (provided such trial is included within the Transatlantic Clinical Development Plan) in any of the Core Indications (except for **[*]**) in any country in the EU or the US);

v) $**[*]** US dollars upon filing of the first Marketing Approval Application for any Product for any of the Core Indications (except for **[*]**) in any country in the EU; and

vi) $**[*]** US dollars upon filing of the second Marketing Approval Application for any Product for any of the Core Indications (except for **[*]**) in any country in the EU.

Each of the payments to be made under (ii) – (vi) above and under the "Milestone Payments to FibroGen for Approval Success" section below shall be a "Milestone Payment" for the purposes of this Agreement.

Milestone Payments to FibroGen for Approval Success: Astellas shall pay FibroGen $**[*]** US dollars upon granting of each of the first three Marketing Approvals in the Core Indications (except for **[*]**) in the EU (for a total aggregate amount of $**[*]** US dollars).

Astellas shall pay FibroGen $**[*]** US dollars upon the first Marketing Approvals in a Core Indication (except for **[*]**) in **[*]**.

Net Payments: All Upfront Payments and Milestone Payments made by Astellas to FibroGen set forth herein are net amounts and shall be made free and clear of, and without any reduction for, withholding taxes or similar deductions, except as may be required under applicable law. In the event Astellas is required to withhold taxes or make

similar deductions from any Upfront Payments to FibroGen hereunder, Astellas shall **[*]** such payment to FibroGen by **[*]** so that after such withholding or deduction is made, FibroGen will have received **[*]**; provided, however, that with respect to both Upfront Payments and Milestone Payments (a) in the event that a change in applicable tax laws after the Effective Date requires that such a withholding or deduction be made (despite efforts to minimize them consistent with applicable law as provided below) that would not have been required prior to such change in law, the parties shall **[*]** the cost of such withholding or deduction (so that the amount of increase in payment above shall **[*]** of the applicable withholding or deduction), and (b) should FibroGen be able, within the maximum period allowable by applicable law, to utilize as a tax credit or tax deduction any amounts withheld or deducted by Astellas as provided above, FibroGen shall promptly notify Astellas of the amount of such tax credit or other tax benefit within **[*]** after such amount can first be calculated and, at the time of such notice, refund the amount of such credit (or amount of tax saved with respect to such deduction) to Astellas to the extent any payment to be made hereunder is increased on account of and up to the amount of such withholding or deduction. For the avoidance of doubt, Astellas shall not be required to increase or make additional payments to FibroGen in the event withholding or deduction is required with respect to any royalty or transfer payments to FibroGen hereunder (and to the extent so required Astellas may deduct or withhold from such payments thereby reducing the amount paid to FibroGen). The parties shall reasonably cooperate and take such reasonable actions (solely to the extent consistent with applicable law), including by executing such documents, providing such information and changing the method of payment, as may be reasonably required to minimize or obtain exemption from any such deduction or withholding from amounts payable hereunder and to enable the applicable party to claim tax credits and/or tax deductions with respect thereto.

Reporting and Audit Rights: Each party shall provide the other party with quarterly reports setting forth costs and expenses incurred by the party which are subject to sharing or reimbursement hereunder (or which are otherwise relevant to payments to be made hereunder, such as FibroGen's Fully Burdened Cost of Products) during such quarter and, in the case of Astellas, setting forth the Net Sales of Products in such quarter (broken down by country and by Product) within **[*]** of the end of such quarter.

Each party shall keep complete and accurate books, records and accounts as required to verify costs and expenses to be reimbursed or shared hereunder and as otherwise necessary to verify the amount and accuracy of payments required to be made hereunder for a period of **[*]** following the end of the calendar quarter to which they pertain. Each party shall have the right, on at least **[*]** advance written notice and not more than once in any twelve (12) month period, to have an independent accounting firm that is reasonably acceptable to the other party (the "Auditor") examine such books, records and accounts of the other party during the other party's normal business hours solely to verify the accuracy of the amount of payments made or required to be made by the other party hereunder, provided that in no event shall a party be entitled to audit a given period of such books, records and accounts of the other party more than once. The Auditor shall execute a

confidentiality agreement with the audited party in a form reasonably acceptable to audited party that prohibits the Auditor from disclosing or using information obtained in connection with the examination (other than the disclosure to the auditing party of the amount of any underpayment or overpayment). Any such examination shall be at the auditing party's expense; provided, however, that if such audit reveals an underpayment (or overcharge, as the case may be) by the audited party of more than **[*]** during the audited period, the audited party shall pay all reasonable costs of the audit.

Intellectual Property Rights: FibroGen shall own all intellectual property rights developed by either party under the Collaboration related to the Products, the Field and/or stabilization of HIF, excluding intellectual property created exclusively by Astellas (or its contractors, licensees, Affiliates and similar third parties other than FibroGen itself), (i) relating solely to drug delivery systems (unless such delivery systems are derived from FibroGen Technology or confidential information of FibroGen obtained by Astellas from FibroGen (excluding in, each case, FibroGen Technical Information that would qualify under one or more of the exceptions in 16.1(a), (b) or (d) in the JDCA)), or (ii) which is or corresponds to other generally applicable technologies, unless such generally applicable technologies are derived from FibroGen Technology or confidential information of FibroGen obtained by Astellas from FibroGen (excluding in, each case, FibroGen Technical Information that would qualify under one or more of the exceptions in 16.1(a), (b) or (d) in the JDCA), (i.e. such technology can be directed towards at least one product or indication outside the HIF Compounds, Field or HIF and could be similarly used with or applied to other products or indications that are not (and do not contain) any HIF Compound, the Field or HIF — such as generally applicable clinical trial technologies or generally applicable manufacturing technologies — and such technology (and corresponding intellectual property) does not completely comprise, cover, or prevent or block the use or exploitation of any HIF Compound, the Field or HIF, or the modulation or stabilization thereof), which intellectual property to such delivery systems in (i) above and other generally applicable technologies in (ii) above (collectively, "General Applicable Technology") shall be owned by Astellas but will be licensed back (with the right to sublicense) to FibroGen solely for use with Products (outside the Territory and Japan) within the Field and under Collaboration during the term of this Agreement and thereafter to the extent necessary to Commercialize HIF Compounds, on a fully paid, free of charge, irrevocable basis. Astellas agrees to execute any and all assignments and other documents, if any, if and to the extent necessary, to effectuate the foregoing and the assignment of all other rights contemplated under this Agreement.

In the event that Astellas develops, during the term of the Agreement, completely independently (as determined **[*]**) from any FibroGen Technology and/or any other FibroGen proprietary materials, confidential information, intellectual property or other related information relating to HIF Compounds, the Field or HIF, or the stabilization or modulation thereof (excluding, in each case, any of the foregoing FibroGen Technical Information that would qualify under one or more of the exceptions in 16.1(a), (b) or (d) in the JDCA) provided by or on behalf of

FibroGen to Astellas under this Agreement or any other agreement between FibroGen and Astellas relating to the subject matter hereof, any inventions or intellectual property rights which comprise, cover, or prevent or block the use or exploitation of, any HIF Compounds, the Field or HIF (or the modulation thereof), Astellas shall own such intellectual property and hereby grants to FibroGen and its Sublicensees a non-exclusive, royalty-free, fully paid irrevocable license to such intellectual property during the term of this Agreement and thereafter (provided, that to the extent any intellectual property qualifies as Generally Applicable Technology, the license granted shall be limited to the extent necessary to Commercialize HIF Compounds), on a fully-paid, free-of-charge, irrevocable basis.

For the avoidance of doubt, to the extent that Section 14.2.2 of the JDCA would prevent Astellas from pursuing patent protection for any Generally Applicable Technology created solely under this Agreement, so long as Astellas is not prohibited from pursuing such patent protection under this Agreement, that Astellas is entitled to own, Section 14.2.2 of the JDCA shall be deemed amended by the parties to allow Astellas to prepare, file, prosecute and maintain such patents, provided, that, for the avoidance of doubt, the foregoing sentence shall not in any way limit FibroGen's rights under this Agreement.

FibroGen shall control all patent-related efforts, including filing, prosecution, maintenance, and defense of patent rights owned or Controlled by FibroGen (subject to Astellas' rights to enforce patents and participate in suits by third parties alleging infringement in the Territory as provided below). FibroGen and Astellas will split equally all costs incurred after the Effective Date in filing, prosecution, and maintenance of the FibroGen Patents which cover the Products, and in defending interference and opposition proceedings to which such FibroGen Patents may be subject, in all such cases in the Territory and North America. FibroGen shall reasonably consult with Astellas regarding the filing, maintenance, prosecution and defense of the FibroGen Patents.

Astellas will have the right to enforce applicable FibroGen patents against third party infringers within the Territory in the event FibroGen fails to enforce such rights, under terms and conditions that are otherwise consistent with Section 14.4 of the JDCA (as reasonably applied to the this Agreement and the Territory), except that, if FibroGen is the party bringing the suit to enforce the intellectual property rights, Astellas shall be responsible for **[*]** of the costs and expenses of such litigation and shall receive **[*]** any proceeds (with FibroGen being responsible for, and entitled to, **[*]** of such expenses and proceeds respectively), and if Astellas is the party bringing the suit to enforce the intellectual property rights, Astellas shall be responsible for **[*]** of the costs and expenses of such litigation and shall receive **[*]** of any proceeds (with FibroGen being responsible for, and entitled to, **[*]** of such expenses and proceeds respectively).

Future Third Party Agreements regarding intellectual property controlled by a non-Affiliate third party shall be governed by terms and conditions consistent with Section 14.5 of the JDCA (as reasonably applied to this Agreement). Furthermore, Astellas shall have the right to propose to FibroGen obtaining rights to third party

intellectual property with the right to sublicense to Astellas and FibroGen shall in good faith determine whether such intellectual property is necessary to Commercialize any Product hereunder. If FibroGen agrees to license such intellectual property, it shall be governed by Section 14.5 (as applied to this Agreement); however, if FibroGen refuses to license such intellectual property and a license thereto is required to Commercialize Products in the Territory without infringing such intellectual property, Astellas may enter into such license itself and, to the extent such license includes Future Third Party Intellectual Property and the use of a Product in the Field in the Territory would constitute infringement of applicable claims contained in the patents and patent applications, if issued, that are the subject of the license, Astellas may deduct from any payment due to FibroGen hereunder **[*]** of the costs therefor with respect to Products in the Territory not to exceed **[*]** of the total annual amounts due FibroGen hereunder, provided that in no event shall the sum of (a) the consideration FibroGen contributes or Astellas deducts for the acquisition of intellectual property from third parties for the Territory in this paragraph and (b) the costs, liabilities and expenses that Astellas has the right to deduct under the last paragraph of this Intellectual Property Rights Section exceed **[*]** hereunder. FibroGen shall use reasonable efforts to provide Astellas with relevant terms of any third party licenses that FibroGen is negotiating pursuant to this paragraph prior to execution of such license for review and comment. Astellas shall have the right to see the relevant final terms of any third party license entered into by FibroGen that apply or relate to the rights granted to Astellas hereunder (including all terms that Astellas is obligated to comply with hereunder), and to reject the sublicense of rights thereunder if it so chooses, before becoming responsible for any costs, expenses, payments or other obligations with respect thereto, provided, that Astellas shall not be entitled to deduct consideration with respect to Future Third Party Intellectual Property under any license thereto entered into by itself in excess of the consideration that it would have been entitled to deduct had FibroGen obtained a license for the Territory on the terms presented to Astellas or on the terms finally agreed to, at FibroGen's discretion. Nothing herein shall otherwise limit Astellas' right to enter into third party license agreements at its own expense. For the avoidance of doubt, third party licensing costs that are not specific to a territory (e.g., up fronts and milestones) shall be fairly allocated between the Territory (and Japan) and North America with respect to the parties respective obligations therefore. Notwithstanding anything to the contrary contained herein, Astellas agrees to comply with the applicable requirements provided to Astellas prior to its acceptance thereof (imposed upon sublicensees or other third parties such as distributors) of FibroGen's License Agreement with DFCI. In addition, Astellas agrees to comply with the applicable requirements (imposed upon sublicensees or other applicable third parties similarly situated to Astellas with respect to such agreements) of any future Third Party Agreements for which Astellas obtains rights through a FibroGen license pursuant this Agreement, and to obligate any of its Affiliates granted sublicenses hereunder, sublicensees or other third parties to comply with any such requirements and to enforce the compliance with such obligations upon such sublicensees or other third parties, provided that FibroGen has provided Astellas with copies of the provisions in such future Third Party Agreements that impose and set forth such requirements prior to Astellas' acceptance thereof.

FibroGen shall be solely responsible for all payments due to any third party licensors of FibroGen (including DFCI) in effect as of the Effective Date (as well as any amended or successor agreements thereto to the extent covering the same or similar licensed subject matter) without any obligation of Astellas to reimburse or share the cost thereof. FibroGen shall comply with its obligations under any third party license agreement for which rights are licensed to Astellas hereunder and shall not amend any such agreements in a manner that restricts, reduces or limits the rights granted to Astellas hereunder. If FibroGen is obligated to pay amounts to a Third Party Licensor (as defined under the JDCA, as reasonably applied to this Agreement), FibroGen shall notify Astellas [*] in advance of the due date of such payment obligation (or such later date as FibroGen may determine), and Astellas shall reimburse its share of such payments within [*] after receipt of notice therefor.

Third party claims or infringement actions against Astellas or FibroGen that the manufacture, development, sale or use of any Product in the Territory pursuant to this Agreement infringes a patent controlled by such third party shall be governed by terms and conditions consistent with Section 14.3 of the JDCA (as reasonably applied to this Agreement; provided that, subject to the FibroGen's right to participate as set out in Section 14.3 of the JDCA as reasonably applied to this Agreement, Astellas shall have the right, without limitation, to take any action it deems necessary to resolve any such claim or infringement action to which it is a party, provided, however, that neither party shall enter into any settlement that admits the invalidity or unenforceability, or limits any claims, of any patent of the other party (for the avoidance of doubt, all FibroGen Technology, including without limitation all claims and patents, licensed to Astellas hereunder shall be sole property of FibroGen for purposes of this paragraph), without the prior written consent of the other party, and provided further that if Astellas is subject to an infringement action or otherwise named as a party with respect to any claims or infringement actions regarding the manufacture, development, importation, sale or use of any Product in the Territory, irrespective of whether FibroGen is subject to such infringement action or otherwise named as a party with respect to such claims, Astellas shall be the Controlling Party thereof and bear all costs, liability and expense associated with such claims or infringement action (subject to the [*] deduction with respect to Future Third Party Intellectual Property described below, applying Section 14.3 of the JDCA), provided, that FibroGen shall participate in the defense and/or settlement thereof at its own expense with counsel of its choice as provided for in Section 14.3 of the JDCA. For the avoidance of doubt, FibroGen shall be fully responsible for any cost, liability and expenses of any Action or other infringement action regarding the Products outside the Territory and Japan, and, notwithstanding anything to the contrary in this Agreement, FibroGen shall have the right, without limitation, to take any action regarding FibroGen Technology it deems necessary to resolve any claim or infringement action, irrespective of whether it may affect the Territory or Japan.

For the avoidance of doubt, with respect to Preexisting Third Party Intellectual

Property, Astellas shall be responsible for and pay 100% of all consideration due in connection with the acquisition or defense of infringement of such rights for the Territory and with respect to Future Third Party Intellectual Property, Astellas shall have the right to deduct up to **[*]** of any cost, liability and expenses for the Territory in accordance with Section 14.3 of the JDCA (as reasonably applied to this Agreement).

Trademark: Astellas and FibroGen will make commercially reasonable efforts to develop a worldwide trademark approved by the JCC and owned by FibroGen and exclusively licensed to Astellas in the Territory (without additional consideration) for the duration of the term of the Agreement (and thereafter as set forth in the "Effect of Termination and Expiration" section below). Costs for the filing, registration, prosecution and maintenance of the worldwide trademark will be split equally by the parties. If a worldwide trademark cannot be developed, or if localized trademarks have compelling marketing or regulatory advantages within the Territory, Astellas will develop at its own expense and own any trademark(s) for the Territory. If in the case of termination (but not expiration) except for the Technical Product Failure, Astellas will assign the Product trademark(s) to FibroGen with the sole consideration to be reimbursement of the actual costs incurred in filing, registration, prosecution and maintenance of the trademark (provided, however, that in the event this Agreement is terminated for material breach or non-performance by FibroGen, the parties shall negotiate reasonable consideration for the assignment of such trademark).

Term and Termination: This Agreement shall become effective on the Effective Date, and, unless earlier terminated as provided herein, shall continue in full force and effect until the later of (i) the onset of Generic Competition with respect to all Products in the entire Territory (considered in the aggregate, i.e., after the total sales of all Generics is **[*]** of the sales of all Products and all Generics combined, even if total sales of a Generic with respect to the corresponding Product is less than **[*]** of their combined sales), and (ii) the Patent Expiration Date.

Astellas may terminate this Agreement if (i) there has occurred Technical Product Failure, or (ii) if FibroGen materially breaches the Agreement consistent with the terms of Section 18.2.1, 18.2.4, or 18.2.5 as governed by the terms of 18.7.4 of the JDCA (in each case as reasonably applied to this Agreement including cross-references to the applicable provisions herein as opposed to the cross-referenced Sections of the JDCA and Astellas having the corresponding rights to terminate for FibroGen's act or omission under Sections 18.2.4 of the JDCA that FibroGen has for Astellas' act or omission under those sections) or if FibroGen has materially breached (a) its non-compete obligations hereunder, (b) the Section on "Intellectual Property Rights," or (c) its payment obligations under Development Costs, provided, that for the avoidance of doubt, Astellas may not terminate the Agreement for breach by FibroGen in the event that FibroGen disputes such breach in good faith until an arbitral decision in accordance with the Section "Dispute Resolution" is made holding that FibroGen is in breach (the triggers under (i) and (ii) being "For Cause"), or (iii) otherwise without cause. Such termination of this Agreement shall take effect, immediately upon the receipt by FibroGen of notice from Astellas that it shall terminate due to the occurrence of

Technical Product Failure (subject to the provisions regarding timing of termination in the event of a dispute below), immediately upon expiry of such cure period in case of (ii), and six (6) months after notice to FibroGen in case of (iii).

In the event of termination prior to February 1, 2009, by Astellas for any reason, or termination by FibroGen as provided for hereunder, Astellas will pay FibroGen any as yet unpaid Upfront Payments; provided, however, that if this Agreement is terminated by Astellas for Technical Product Failure within nine (9) months of the Effective Date, Astellas shall pay to FibroGen a total of **$[*]** of Upfront Payments after subtracting for any previously paid Upfront Payments (but no other termination fees) prior to such date of termination, and if this Agreement is terminated by Astellas for Technical Product Failure between nine (9) months and eighteen (18) months of the Effective Date, Astellas shall pay to FibroGen a total of **$[** * **]** of Upfront Payments after subtracting for any previously paid Upfront Payments (but no other termination fees) prior to such date of termination, and if this Agreement is terminated by Astellas for Technical Product Failure beyond eighteen (18) months after the Effective Date, Astellas shall pay to FibroGen a total of **$[** * **]** of Upfront Payments after subtracting for any previously paid Upfront Payments (but no other termination fees) prior to such date of termination. In the case where an adverse event or testing results occur which leads to Technical Product Failure and termination as determined by the JSC as described in subclause (i) of the Technical Product Failure Definition above, the effective date of termination for purposes of the foregoing clause regarding relief from Upfront Payments, if applicable, shall be the date Astellas provides written notice to the JSC that it intends to terminate the Agreement due to Technical Product Failure and irrevocably commits that the Astellas members of the JSC will vote for termination of the Agreement rather than, for the avoidance of doubt, the date of any such event or results or the date the JSC ultimately determines that a Technical Product Failure occurs (or the date when a dispute with respect thereto is ultimately resolved under dispute resolution hereunder), and in such a case of such written notice, the JSC shall convene within a reasonable period of time to consider the question of whether a Technical Product Failure has occurred or not. In the case where an adverse event or trial results occur which lead to Technical Product Failure and termination as described in subclause (iii) of the Technical Product Failure Definition above, the effective date of termination for purposes of the foregoing clause regarding relief from Upfront Payments, if applicable, shall be the date Astellas provides written notice to the JSC that it intends to terminate the Agreement due to such an event or trial results (for the avoidance of doubt, Astellas may provide such notice based upon the lack of clearance to conduct the applicable clinical trials, and would not have to wait until the end of the **[*]** period for which such lack of clearance must persist for Technical Product Failure to occur under (iii)) and irrevocably commits that the Astellas members of the JSC will vote for termination of the Agreement, rather than the date, for the avoidance of doubt, that a event or trial results occur (or the date when a dispute with respect thereto is ultimately resolved under dispute resolution hereunder).

Notwithstanding the receipt of any notice of intention to terminate due to

Technical Product Failure, this Agreement and the obligations hereunder shall continue until the actual termination of this Agreement, and in the event that this agreement terminates due to such Technical Product Failure and Astellas has made any Upfront Payment(s) between the date of such notice and the date of termination, FibroGen shall **[*]**.

In the event of a termination by Astellas other than For Cause:

(i) from the Effective Date until January 31, 2009, in addition to and without limitation of any payments obligations under this Agreement, Astellas will pay FibroGen a $**[*]** termination fee;

(ii) from February 1, 2009 until Marketing Approval in three (3) Core Indications, Astellas will pay FibroGen the greater of (x) a $**[*]** termination fee, and (y) **[*]**; and

(iii) after Marketing Approval in three (3) Core Indications until expiration of the Agreement, Astellas shall pay to FibroGen the lesser of (x) a $**[*]** termination fee, and (y) **[*]**; provided that the amount of the payment under this (iii) shall be no less than $**[*]**.

In the event of a termination by Astellas For Cause, Astellas shall have no further payment obligations other than specifically described above. All payments due upon termination shall be paid within **[*]** of such termination.

FibroGen may terminate the Agreement in the case of certain material breaches by Astellas consistent with the terms of Sections 18.2.1, 18.2.4, or 18.2.5 as governed by the terms of 18.7.4 of the JDCA (in each case as reasonably applied to this Agreement including cross-references to the applicable provisions herein as opposed to the cross-referenced Sections of the JDCA). For the avoidance of doubt, subject to FibroGen's right to terminate upon notice following Astellas' failure to cure as set forth in the License section above, FibroGen may not terminate the Agreement for breach by Astellas in the event that Astellas disputes such breach in good faith until an arbitral decision in accordance with the Section "Dispute Resolution" is made holding that Astellas is in breach.

Effect of Termination and Expiration: In the event of expiration of this Agreement (as opposed to early termination other than as per mutual agreement), all licenses granted to Astellas hereunder (including trademark license if Astellas uses the worldwide trademark of FibroGen) shall survive and become fully paid-up and royalty-free and Astellas shall be able to continue Commercialization of Products in the Territory in the Field at its own discretion. Upon such expiration, Astellas shall not owe any royalties, milestones or other payments to FibroGen with respect to subsequent Commercialization of Products; provided, however, that all products supplied to Astellas by FibroGen shall be compensated at a price set at the point where **[*]**. FibroGen shall continue to manufacture and supply Astellas' requirements of Products after expiration (under the terms of this Agreement and the commercial supply agreement, except for the foregoing stated transfer price) for a period of up to **[*]**, during which time the parties shall arrange for a transition of manufacturing to Astellas or its designee in accordance with the provisions governing manufacturing technology transfer above.

Without limiting the foregoing, the following provisions shall survive expiration or any termination of this Agreement: Definitions (to the extent required to interpret surviving provisions), Reporting and Audit Rights (until the parties are no longer required to keep such books, records and accounts), Term and Termination, Indemnification, Intellectual Property Rights (to the extent such Intellectual Property Rights terms on their face or would when reasonably applied extend beyond expiration or termination of this Agreement (e.g., without limitation, infringement with respect to activities conducted during the term of the Agreement, restrictions on Astellas' right to use FibroGen know-how) and to the extent regarding ownership of intellectual property that was developed, invented, created or protected during the term of this Agreement), Confidentiality, Dispute Resolution (to the extent required to resolve disputes ongoing as of termination or expiration or required to resolve disputes regarding surviving provisions), Limitation of Liability, and each party's obligation to provide the other party with (a) data (including raw data) analyses, reports, protocols and correspondence under development during the term of the Agreement and (b) data created during, or results from, activities performed during the Agreement, following such expiration or termination. In addition, during the period from notice of any termination until such termination, and following such a termination of this Agreement, Astellas shall have the obligation to comply with regulatory requirements to provide FibroGen with all data reasonably necessary for FibroGen to continue to supply existing patients and to meet its legal obligations based on Astellas' Commercialization activities including the list of entities to whom Astellas and its Affiliates sell Product; provided that FibroGen shall maintain such data confidential in accordance with the Section "Confidentiality" hereunder and shall only use such data in Commercialization of Products in the Territory.

To the extent provided therein the following provisions shall survive termination of this Agreement: Trademark (regarding assignment of the trademark), Development (regarding Astellas' obligation to transfer Marketing Approvals) and the final sentence of License.

From and after the date of a notice of termination, FibroGen and Astellas shall have no further obligations under this Agreement beyond those obligations that expressly survive termination in such events as specified herein.

Representations and Warranties: FibroGen warrants and represents to Astellas, as of the Effective Date, that (i) it is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware; (ii) the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of FibroGen and will not violate or conflict with any agreement or other instrument to which it is a party; (iii) there is no pending litigation which alleges or any communication alleging that Commercialization of FG-2216 or FG-4592 or any compound Controlled by FibroGen for use in the Field has infringed or misappropriated the intellectual property rights of any third party or has been obtained by misappropriating any third party's intellectual property right; (iv) subject to the terms and conditions of the agreements for the FibroGen Acquired

Patents, FibroGen has complete title to and ownership of the FibroGen Patents, free and clear from any mortgages, pledges, liens, security interests, conditional and installment sale agreements, encumbrances, charges or claims of any kind; (v) FibroGen has the right to grant the licenses granted to Astellas hereunder; (vi) the only agreement under which FibroGen has in-licensed FibroGen Technology (including FibroGen Acquired Patents) from a third party is the DFCI Agreement and FibroGen has obtained all necessary consents thereunder to grant Astellas the rights therein to be conveyed hereunder including, without limitation, the consent of DFCI for FibroGen to grant the sublicense granted to Astellas hereunder and for Astellas to further sublicense such rights to its Affiliates; (vii) all such in-license agreements are in full force and effect, and FibroGen is not in breach of any such agreement and has not received any notice of breach; and (viii) FibroGen has not knowingly breached its duty of candor (including, without limitation, it obligation under 37 C.F.R. 56) to the USPTO, or any foreign equivalent thereof to the applicable foreign patent office, in preparing, filing, prosecuting, or maintaining any FibroGen Patent.

Astellas warrants and represents to FibroGen, as of the Effective Date, that (i) it is a corporation duly organized, validly existing and in good standing under the laws of Japan; (ii) the execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of Astellas.

EXCEPT AS SET FORTH IN THIS AGREEMENT, FIBROGEN AND ASTELLAS MAKE NO, AND EXPRESSLY DISCLAIM ANY, WARRANTIES OR REPRESENTATIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE DEVELOPMENT PROGRAM OR CONCERNING THE SUBJECT MATTER OF THIS AGREEMENT, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, VALIDITY OF FIBROGEN TECHNOLOGY, PATENTED OR UNPATENTED, AND NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

Indemnification: Astellas shall indemnify each of FibroGen and its Affiliates and the directors, officers, and employees of FibroGen and such Affiliates and the successors and assigns of any of the foregoing (the “FibroGen Indemnitees”), and hold each FibroGen Indemnitee harmless from and against any and all liabilities, damages, settlements, claims, actions, suits, penalties, fines, costs or expenses (including, without limitation, reasonable attorney’s fees and other expenses of litigation) to the extent not otherwise paid for by insurance, incurred by any FibroGen Indemnitee arising from or occurring as a result of any claim, action, suit, or other proceeding brought by third parties against a FibroGen Indemnitee arising from or occurring as a result of any development or testing (except for the avoidance of doubt, by or jointly with FibroGen), manufacture (if applicable), importation, use, offer for sale, sale or other distribution of any Product with respect to all of the foregoing, solely to the extent such manufacture, importation, use, offer for sale, sale or other distribution activities occur in the Territory by or for the sole benefit of Astellas or its Affiliates or Sublicensees, distributors or agents (excluding FibroGen to the extent any of the foregoing could be deemed to include FibroGen)

(including, without limitation, product liability and infringement claims subject to the section on "Intellectual Property Rights" above) except, in all cases above, to the extent caused by failure of the Product supplied by FibroGen to meet the Product Specifications in effect at the time of manufacture, or material deviation by FibroGen or its subcontractor from cGMP (or ICH) guidelines in manufacturing the Product, or FibroGen's breach of this Agreement, or willful misconduct.

FibroGen shall indemnify each of Astellas and its Affiliates and the directors, officers, and employees of Astellas and such Affiliates and the successors and assigns of any of the foregoing (the "Astellas Indemnitees"), and hold each Astellas Indemnitee harmless from and against any and all liabilities, damages, settlements, claims, actions, suits, penalties, fines, costs or expenses (including, without limitation, reasonable attorney's fees and other expenses of litigation) to the extent not otherwise paid for by insurance, incurred by any Astellas Indemnitee arising from or occurring as a result of any claim, action, suit, or other proceeding brought by third parties against a Astellas Indemnitee (i) arising from or occurring as a result of any development or testing (except for the avoidance of doubt, by or jointly with Astellas), manufacture (excluding manufacture for Astellas), importation (excluding importation into the Territory), use, offer for sale, sale or other distribution of any Product with respect to all of the foregoing, solely to the extent such manufacture, importation, use, offer for sale, sale or other distribution activities occur outside the Territory and Japan by or for the sole benefit of FibroGen or its Affiliates or Sublicensees, distributors or agents (excluding Astellas to the extent any of the foregoing could be deemed to include Astellas) (including, without limitation, product liability and infringement claims subject to the section on "Intellectual Property Rights" above) and (ii) to the extent caused by any failure of the Product supplied by FibroGen to meet the Product Specifications in effect at the time of manufacture, or material deviation by FibroGen or its subcontractor from cGMP (or ICH) guidelines in manufacturing the Product, except, in all cases above, to the extent caused by Astellas' breach of this Agreement, or willful misconduct.

Claims for indemnification under this Agreement shall be governed by terms and conditions consistent with the procedures set forth in Section 17.4 of the JDCA (as reasonably applied to this Agreement).

Confidentiality: Disclosures of confidential information under this Agreement shall be governed by terms and conditions consistent with Section 16 of the JDCA (as reasonably applied to this Agreement) provided that Confidential Information (as that term is defined in the JDCA) under this Agreement shall also be deemed Confidential Information under the JDCA and vice-versa thereby allowing the parties to use and disclose Confidential information exchanged under one agreement for the purpose of the other agreement in accordance with Section 16 of the JDCA.

Except with the prior written consent of the other party, each party agrees not to disclose the terms of this Agreement except as such party believes is reasonably necessary to comply with securities laws or other applicable laws (subject to the provisions below), or to investors, accountants, attorneys or other advisors, or

other consultants or representatives under reasonable obligations of confidentiality. If a party desires to make a public announcement regarding the terms of this Agreement, such party shall submit any such press release or public disclosure to the other party for review and comment, and the receiving party shall promptly review such public disclosure within **[*]** of receipt to determine whether to provide or withhold consent thereto (provided that, without relieving any party of the obligation to submit any such disclosure to the other party for review and comment (to the extent practicable under the circumstances and legally allowed), no consent shall be required with respect to legal obligations to disclose). If the receiving party does not respond within such **[*]** period, the press release or public disclosure shall be deemed approved. In addition, if a public disclosure is required by law, including without limitation in a filing with the Securities and Exchange Commission, the disclosing party shall provide copies of the disclosure reasonably in advance of such filing or other disclosure for the nondisclosing party's prior review and comment, and consent may not be unreasonably withheld (provided that no consent shall be required with respect to legal obligations to disclose). Upon execution of this Agreement, the parties shall agree to a redacted version of this Agreement to be used for any and all submissions permitted under this Section unless otherwise agreed by the parties in writing or required to comply with law (in which case the parties shall cooperate to work to limit such disclosure as may be allowed by law).

FibroGen and Astellas shall jointly agree on any proposed press release or other public disclosure prior to issuance regarding this Collaboration between the parties. The parties agree to immediately undertake the issuance of a mutually agreed press release upon execution of this Agreement and, as applicable, upon execution of the Detailed Commercialization Agreement or this Agreement becoming the final operative agreement relating to the Collaboration. Notwithstanding any of the foregoing to the contrary, neither party shall require consent to publicly disclose information that has already been consented to by the other party in a previous disclosure (or which is otherwise publicly known without the fault of the disclosing party).fmil

Subject to the International Committee of Medical Journal Editors ("ICMJE") Uniform Requirements for Manuscripts Submitted to Biomedical Journals and applicable legal requirements, the JDRC (with approval of the JSC) will determine the overall strategy for publishing and presenting results of studies pertaining to the Products and the JDRC or JSC shall approve all publications in the Territory or North America prior to publication. Publication of results shall be governed by terms and conditions consistent with Section 5.2 of the JDCA (as reasonably applied to this Agreement). Publication cannot include any information that the JSC has determined to be a trade secret.

Dispute Resolution: Any dispute between the parties under this Agreement that cannot be resolved by the JSC may, at the written request of either party, be referred to an Authorized Designee of each party who has the authority to resolve such dispute; except that the Authorized Designee shall not be directly involved in the dispute. Such representatives of both parties shall meet within twenty-one (21) days of such request to resolve such disputes. In case the representatives fail to resolve the

dispute within thirty (30) days of the original request, all disputes shall be settled exclusively by arbitration in accordance with the rules of Arbitration of the International Chamber of Commerce. The place of arbitration shall be Vancouver, B.C., Canada. The arbitration proceedings shall be conducted in English. The decision shall be final and binding upon both parties. Judgment upon the award may be entered in any court having jurisdiction thereof. The parties shall be entitled to obtain injunctive relief from the courts where appropriate, pending the outcome of any arbitration hereunder. This Agreement shall be governed by the laws of California, without reference to conflict of laws principles.

Legal Effect: This Agreement shall constitute the operative agreement between FibroGen and Astellas and shall be in full force and effect as of its execution by the parties. The parties shall make best efforts to enter into a more detailed collaboration agreement reflecting more fully the terms and conditions of this Agreement (the "Detailed Commercialization Agreement") within ninety (90) days of the execution of this Agreement unless mutually extended. If the parties do not enter into a Detailed Commercialization Agreement in such period, then this Agreement shall become the final operative agreement governing the relationship between the parties.

Limitation of Liability: IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, PUNITIVE OR SPECIAL DAMAGES OF THE OTHER PARTY ARISING OUT OF OR RELATED TO THIS AGREEMENT, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This Agreement constitutes the entire understanding between the parties with respect to the subject matter hereof. No modification or waiver of this Agreement will be effective unless in writing and signed by both parties hereto. If any provision of this Agreement should be held invalid or unenforceable, the remaining provisions will be unaffected and will remain in full force and effect, to the extent consistent with the intent of the parties as evidenced by this Agreement as a whole. Titles and headings are for convenience only and are not to be used for interpreting this Agreement. This Agreement is governed by the laws of the State of California, excluding application of, or reference to, its conflicts of laws principles. This Agreement may not be assigned, in whole or in part, except (a) in connection with the merger, acquisition or sale of a party or of the business of such party to which this Agreement relates or (b) with the prior written consent of the other party. Subject to the foregoing, this Agreement shall inure to the benefit of and bind parties and their respective successors and permitted assigns. The relationship of the parties under this Agreement is that of independent contractors, and nothing contained in this Agreement shall be construed to (a) give either party the power to direct or control the day-to-day activities, expressly including marketing activities, of the other, (b) constitute the parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking, or (c) allow either party to have any right or authority, express or implied, to assume or create any obligation of any kind, or to make any representation or warranty, on behalf of the other party or to bind the other party in any respect whatsoever. This Agreement may be executed in one or more counterparts, including, without limitation, by facsimile or electronic transmission counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument. All notices and other communications hereunder will be deemed to have been duly given only if delivered personally, by facsimile with confirmation of receipt, by mail (first class, postage prepaid), or by overnight delivery using a globally-recognized carrier, to the parties at the addresses

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

provided in the first paragraph of this Agreement or to such other address as the addressee shall have last furnished in writing in accord with this provision to the addressor. All notices shall be deemed effective upon receipt by the addressee. Astellas may perform its obligations and exercise its rights hereunder by or through one or more of its Affiliates or one or more contractors or subcontractors (subject to limitations on sublicensing herein) or otherwise avail its Affiliates of Astellas' benefits hereunder, provided that Astellas shall remain subject to all of its obligations hereunder and the terms and conditions of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized representatives as set forth below.

FIBROGEN	ASTELLAS
By: /s/ Thomas B. Neff	By: /s/ Toichi Takenaka
Name: Thomas B. Neff	Name: Toichi Takenaka, Ph.D.
Title: President & CEO	Title: President & CEO

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EXHIBIT A
INDICATIONS

Included Indications:

- Treatment of anemia in patients with chronic kidney disease undergoing dialysis
- Treatment of anemia in patients with chronic kidney disease not undergoing dialysis
- [*]

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EXHIBIT B
TERRITORY

- Albania
- Andorra
- Armenia
- Austria
- Azerbaijan
- Belarus
- Belgium
- Bosnia & Herzegovina
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Georgia
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Kazakhstan
- Kyrgyzstan
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Macedonia
- Malta
- Moldova
- Monaco
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- San Marino
- Serbia and Montenegro (Yugoslavia)
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Tajikistan
- Turkey
- Turkmenistan
- Ukraine
- United Kingdom
- Uzbekistan
- Vatican City
- Bahrain
- Egypt
- Iran
- Iraq
- Israel
- Jordan
- Kuwait
- Lebanon
- Oman
- Qatar
- Saudi Arabia
- Syria
- United Arab Emirates
- Yemen
- South Africa

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EXHIBIT C
JDCA Preclinical Trials

Test Name	Current Status	Timing
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

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EXHIBIT D
FibroGen's Current and Planned Clinical Studies

FibroGen's current or planned clinical studies with FG-2216 include:

Study	Protocol	Status
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

FibroGen's current or planned clinical studies with FG-4592 include:

Study	Protocol	Status
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

NOTE: It is expected that sufficient time exists for newly formed JDRC and JSC to have input into the design and execution of the clinical studies for FG-2216 and FG-4592 listed above in the shaded boxes.

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Exhibit 10.13

Amendment to Anemia License and Collaboration Agreement

This Amendment (the "Amendment") to the Anemia License and Collaboration Agreement dated as of April 28, 2006, by and between Astellas Pharma Inc. and FibroGen, Inc. (the "Agreement") shall be effective as of August 31, 2006.

The Parties, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, agree as follows:

(1) Item i) of the Section of the Agreement entitled "Upfront and Milestone Payments to FibroGen" (hereinafter the "Upfront Section") shall be amended in its entirety to read as follows: "$40 million US dollars within fourteen (14) business days in Japan of execution of this Agreement, $20 million US dollars within fourteen (14) business day in Japan of issuance by FibroGen to Astellas of an invoice after the execution of this Amendment, $20 million US dollars within fourteen (14) business days in Japan of the earlier of the execution of the Detailed Commercialization Agreement (as defined below) or the conversion of the Agreement into the final operative Agreement, $70 million US dollars on January 31, 2007, $70 million dollars on January 31,2008, and $80 million US dollars on January 31,2009 (collectively, the "Upfront Payments");"

(2) Item ii) of the Upfront Section shall be amended in its entirety to read as follows: "$20 million US dollars upon submission by FibroGen to Astellas of written notice that the first Phase IIb clinical trial (provided such trial is included within Exhibit D attached hereto) has been Initiated for a first Product in any of the Core Indications (except for [*]) in any country in the EU or the US;"

(3) A new Item iii) of the Upfront Section shall be added as follows: "$20 million US dollars upon Initiation after the execution of this Amendment of the next Phase IIb clinical trial (provided such trial is included within the Transatlantic Clinical Development Plan, contained in Exhibit D attached hereto, or is otherwise agreed by the Parties, and such trial is for a different Core Indication than the Core Indication studied under the Phase IIb clinical trail in item ii) above) for the same Product that triggered the milestone payment under ii) above in any of the Core Indications (except for [*]) in any country in the EU or the US;"

(4) The current Items iii) through vi) of the Upfront Section shall be renumbered as Items iv) through vii), respectively, and the paragraph immediately below new Item vii) shall be amended in its entirety to read as follows: "Each of the payments to be made under (ii)–(vii) above and under the "Milestone Payments to FibroGen for Approval Success" section below shall be a "Milestone Payment" for the purposes of this Agreement."

(5) The Section of the Agreement entitled "Legal Effect" shall be amended in its entirety to read as follows: "This Agreement shall constitute the operative agreement between FibroGen and Astellas and shall be in full force and effect as of its execution by the parties. The parties shall make best efforts to enter into a more detailed collaboration agreement reflecting more fully the terms and conditions of this Agreement (the "Detailed Commercialization Agreement") by December 1, 2006. If the parties do not enter into a Detailed Commercialization Agreement by such date, then this Agreement shall become the final operative agreement governing the relationship between the parties."

(6) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment to Anemia License and Collaboration Agreement as of the date first set forth above.

FIBROGEN, INC.

By: /s/ William Hodder
William Hodder
Vice President, Business Development

ASTELLAS PHARMA INC.

By: /s/ Masaki Doi
Masaki Doi
Vice President, Business Development

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.14

Amendment No. 2 to Anemia License and Collaboration Agreement

This Amendment No 2. (the "Amendment") to the Anemia License and Collaboration Agreement dated as of April 28, 2006, as amended on August 31, 2006, by and between Astellas Pharma Inc. and FibroGen, Inc. (the "Agreement") shall be effective as of December 1, 2006.

The Parties, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, agree as follows:

(1) Item i) of the Section of the Agreement entitled "Upfront and Milestone Payments to FibroGen" (hereinafter the "Upfront Section") shall be amended in its entirety to read as follows: "$40 million US dollars within fourteen (14) business days in Japan of execution of this Agreement, $20 million US dollars on September 15, 2006, $20 million US dollars on or prior to December 28, 2006, $50 million US dollars on January 31, 2007, $20 million US dollars within fourteen (14) business days in Japan of the earlier of the execution of the Detailed Commercialization Agreement (as defined below) or the conversion of the Agreement into the final operative Agreement, $70 million US dollars on January 31, 2008, and $80 million US dollars on January 31, 2009 (collectively, the "Upfront Payments");"

(2) The Section of the Agreement entitled "Legal Effect" shall be amended in its entirety to read as follows: "This Agreement shall constitute the operative agreement between FibroGen and Astellas and shall be in full force and effect as of its execution by the parties. The parties shall make best efforts to enter into a more detailed collaboration agreement reflecting more fully the terms and conditions of this Agreement (the "Detailed Commercialization Agreement") by March 31, 2007. If the parties do not enter into a Detailed Commercialization Agreement by such date, then this Agreement shall become the final operative agreement governing the relationship between the parties."

(3) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment to Anemia License and Collaboration Agreement as of the date first set forth above.

FIBROGEN, INC.

By: */s/ William Hodder*
William Hodder
Vice President, Business Development

ASTELLAS PHARMA INC.

By: */s/ Masaki Doi*
Masaki Doi, Ph.D.
Vice President, Business Development

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.15

Supplement to Anemia License and Collaboration Agreement

This Supplement (this "Supplement") to the Anemia License and Collaboration Agreement dated as of April 28, 2006, as amended, by and between Astellas Pharma Inc. and FibroGen, Inc. (the "Agreement") is dated as of November 12, 2009, and shall be effective as of April 28, 2006. Astellas and FibroGen are each referred to herein by name or, individually, as a "Party" or, collectively, as the "Parties." All capitalized terms not otherwise defined in this Supplement have the same meanings as set forth in the Agreement.

Whereas, the Development Costs section of the Agreement provides that reasonable FTE costs shall be included in the costs shared under the Agreement, and the Parties have been in discussions to clarify the cost structure governing development activities for which costs are shared under the Agreement;

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree, for the purposes of clarification, as follows:

(1) The Parties agree that the rate for reasonable FTE costs for which each Party will charge the other for eligible activities performed by employees of such Party and its Affiliates and for which costs are shared under the Agreement shall be calculated on an hourly basis for the hours actually worked (the "Hourly Rate"). The Hourly Rate shall be, for the period commencing on the Effective Date of the Agreement and ending December 31, 2007, $[*] per hour; for the period from January 1, 2008 to December 31,2008, the FTE Rate shall be $[*] per hour; for the period from January 1, 2009 to December 31, 2009, the FTE Rate shall be $[*] per hour; and thereafter, the FTE Rate shall be adjusted annually as of January 1, beginning on January 1, 2010, in accordance with the average annual percentage [*] for the preceding year, calculated from the [*] of [*] and [*] for the [*] for such annual period, except as otherwise mutually agreed by the Parties. For the purposes of clarity, the [*] shall be [*], and the [*] for the [*] shall be [*]; and the current [*] for these [*] are located on Exhibit A hereto, as may be amended from time to time. The intent of the Hourly Rate is to represent a fully loaded rate that includes, but is not limited to, the following general expense categories: salaries and wages (including bonuses, moving expenses, and payroll taxes), benefits provided (including health benefits, defined contribution, defined benefit plans, vacations, etc.), direct employee costs (including recruitment costs, internal and external training costs, computer charges, automobile leases, subscriptions and reference materials, telephone, fax, cellular phone, and copy machines and related costs), and allocation of other overhead costs (including rent, insurance, and utilities).

(2) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Supplement to Anemia License and Collaboration Agreement as of the date first set forth above.

FIBROGEN, INC.

By: /s/ William Hodder
William Hodder
Vice President, Business Development

ASTELLAS PHARMA INC.

By: /s/ C. Yokota
Chihiro Yokota, R.Ph.
Vice President, Licensing & Alliances

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT A

[*]

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Confidential

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.16

AMENDMENT NO. 3 TO ANEMIA LICENSE AND COLLABORATION AGREEMENT

This Amendment No. 3 (the "**Amendment**") to the Anemia License and Collaboration Agreement dated as of April 28, 2006, by and between Astellas Pharma Inc. ("**Astellas**") and FibroGen, Inc. ("**FibroGen**"), as amended on August 31, 2006 and December 10, 2006 (the "**Agreement**") is dated as of May 10, 2012 (the "**Third Amendment Effective Date**"). All capitalized terms not otherwise defined in this Amendment have the same meanings as set forth in the Agreement.

WHEREAS, the Parties have entered into the Agreement, which provides that all costs and expenses (including, without limitation, reasonable FTE costs and the Fully Burdened Cost of clinical supplies of the Product) incurred by either party for the Transatlantic Clinical Development Plan after the Effective Date shall be reported, adjusted and reconciled between them on a quarterly basis so that FibroGen and Astellas are to share such costs and expenses equally;

WHEREAS, the Parties intend to conduct multiple Phase 3 studies within the Transatlantic Clinical Development Plan under the Agreement, including two (2) or more Phase 3 renal anemia studies in patients not on dialysis or in patients on dialysis treatment; and

WHEREAS, the Parties would like to amend the cost sharing arrangement under the Agreement with respect to certain activities performed in the conduct of the Phase 3 renal anemia studies to be conducted under the Agreement under a "payment in kind" schema, such that each Party shall bear solely the cost of such activities for the study for which it is the Sponsor (as defined below), and such costs shall not be subject to the cost sharing provisions of the Agreement;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Notwithstanding the provisions of the Agreement entitled "**Development Costs**" that outlines certain development costs that are to be shared by the Parties, solely with respect to the studies listed on Exhibit A hereto (any such study sponsored by Astellas, an "**Astellas Study**"; and any such study sponsored by FibroGen, a "**FibroGen Study**"; each such Study, a "**PIK Study**"; and the Party sponsoring such study, respectively, the "**Sponsor**") all Development costs and expenses incurred for an Astellas Study or FibroGen Study, as the case may be, on and after the Third Amendment Effective Date, including, without limitation, those incurred in connection with the following activities performed in the conduct of the study, including internal employee costs or out-of-pocket costs, whether incurred directly by the Sponsor or on the Sponsor's behalf by any third party (including, for the avoidance of doubt, the Party that is not the Sponsor of the Study upon express request of the Sponsor Party), shall be borne solely by the Sponsor (the "**PIK Activities**"):

— **[*]**

(2) For the avoidance of doubt, notwithstanding Paragraph (1) above, all Development costs and expenses incurred in connection with the following activities performed in the conduct of the study, including internal employee costs or out-of-pocket costs, whether incurred directly by the Sponsor or on the Sponsor's behalf by any third party, shall be subject to the cost-sharing provisions of the Agreement:

— **[*]**

(3) The Parties agree and acknowledge that notwithstanding anything to the contrary in this Amendment, the conduct of all activities discussed in this Amendment shall remain subject to compliance with the terms and conditions of the Agreement, and remain subject to JSC approval as set forth in the Agreement, irrespective of whether the costs relate to PIK Activities, except that JSC approval is not required with respect to the budget for the Development costs and expenses set forth in Paragraph (1) above.

(4) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect. All capitalized terms not defined herein shall have the meaning as set forth in the Agreement.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 3 to Anemia License and Collaboration Agreement as of the Third Amendment Effective Date.

FIBROGEN, INC.

By: /s/ Thomas B. Neff
Thomas B. Neff, CEO

ASTELLAS PHARMA INC.

By: /s/ C. Yokota
Chihiro Yokota, R.Ph.
Corporate Executive
Vice President, Licensing & Alliances

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT A: ONGOING OR PLANNED PIK STUDIES

	Sponsor	Study Code	Study description
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(i)

PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

This Process Development and Clinical Supply Agreement ("Definitive Agreement") is made

by and among

FIBROGEN, Inc.
225 Gateway Boulevard
South San Francisco, CA 94080
USA

(hereinafter called "FibroGen"),

and

Boehringer Ingelheim Pharma GmbH & Co. KG
Birkendorfer Straße 65
88397 Biberach an der Riss
Germany

(hereinafter called "BI Pharma")

(hereinafter BI Pharma and FibroGen each shall also be called "Party" and collectively "Parties" as the case may be).

EFFECTIVE DATE: 29 November 2007

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Preamble

WHEREAS, FibroGen is a company engaged in the design and development of innovative drugs; and

WHEREAS, BI Pharma has know-how and expertise to develop production processes for biopharmaceuticals towards **[*]** scale volumes and within international regulatory requirements; and

WHEREAS, Parties have previously entered into a Confidentiality Agreement and an Authorization to Proceed, each as defined below; and

WHEREAS, FibroGen wishes to have BI Pharma, and BI Pharma has agreed to, develop a **[*]** production cell line and a **[*]** production process for the production of FibroGen's Product with the aim under this Definitive Agreement to produce material for preclinical and clinical testing; and

WHEREAS, FibroGen is willing to, following such preclinical and clinical testing, provide BI Pharma hereunder with an option regarding **[*]** manufacture of the Product.

NOW THEREFORE and in consideration of the mutual covenants set forth in this Definitive Agreement, BI Pharma and FibroGen hereby agree as follows:

1. Definitions

1.1 "Acceptance Criteria"

shall mean the (preliminary or final, as the case may be) Specifications of the Product for clinical use set forth in Appendix 9, accompanied by a Confirmation of Compliance and Certificate of Analysis, and review and approval by FibroGen of the respective executed Batch Records (as defined in the Quality Agreement).

1.2 "Authorization to Proceed" or "ATP"

shall mean the Authorization to Proceed which covered initial development work on the Product entered into between the Parties on the 12th July 2006 and amended by Amendments effective as of September 14, 2006, November 14, 2006 and February 15, 2007, and a Letter Agreement as of May 25, 2007, the Additional Letter Agreement as of June 15, 2007, the Second Additional Letter Agreement of June 29, 2007, the Third Additional Letter Agreement of July 23, 2007, and the Fourth Additional Letter Agreement of August 29, 2007, each attached to this Definitive Agreement as Appendix 8.

1.3 "Batch"

shall mean Product from one fermentation run using the Process.

1.4 "BI Pharma Contribution"

shall mean the **[*]** provided by BI Pharma and which comprise a portion of the Product **[*]**, as set forth on Appendix 11 hereto.

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1.5 "Product [*]"

shall mean the **[*]**.

1.6 "BI Pharma Confidential Information and Know-How"

shall mean all existing or future confidential technical or other information relating to (a) the Biberach Facility, (b) BI Pharma Technology, (c) the Process, (d) the BI Pharma Contribution, (e) BI Pharma Improvements, (f) BI Pharma Information as defined in the CDA, and/or (g) know-how for the development and manufacture of biopharmaceuticals generally, in each case (a)-(g) whether patented or not patented, including, without limitation, trade secrets, know-how, processes, concepts, experimental methods and results and business and scientific plans that are disclosed or supplied to FibroGen or used in connection with the Project.

1.7 "BI Pharma Intellectual Property"

shall have the meaning set forth in Section 9.2.2.

1.8 "BI Pharma Technology"

shall mean the Technology developed or obtained by or on behalf of BI Pharma (i) prior to May 18, 2006 or (ii) independent of the ATP or this Definitive Agreement and activities conducted thereunder and hereunder without the use of the of FibroGen Information (as defined in the CDA) or the Materials, including without limitation, the BI Pharma proprietary technology known as **[*]** and the Process.

1.9 "Biberach Facility"

shall mean the biotech buildings at the Biberach, Germany, site of BI Pharma.

1.10 "Certificate of Analysis"

shall mean, with respect to a Batch, that complete and accurate document setting forth the measured and observable characteristics of each Batch as required by the Acceptance Criteria, as dated, executed and provided to FibroGen by BI Pharma.

1.11 "Confirmation of Compliance"

shall mean BI Pharma's complete and accurate certificate, executed and delivered to FibroGen in connection with each Batch of Product, confirming that such Batch of Product was manufactured according to cGMPs, the Process and applicable laws at the place of manufacturing, and setting forth any deviations therefrom and the results of final investigations thereof including a summary of environmental monitoring limit excursions for aseptic filling if applicable.

1.12 "cGMPs"

shall mean current Good Manufacturing Practice regulations as codified in:
The Rules Governing Medicinal products supplied in the European Union: Volume 4 — Medicinal products supplied for Human and Veterinary Use: Good Manufacturing Practice, as amended from time to time; the United States Code of Federal Regulations, title 21, parts 210, 211, 600 and 610, as amended from time to time; and the International Committee on Harmonisation and other comparable guidelines, directives or standards required by governmental authorities in the United States and the European Union.

1.13 "Confidentiality Agreement" or "CDA"

shall mean the Confidentiality Agreement between the Parties entered into on August 4, 2004 and amended on May 15, 2006.

1.14 "CTGF"

shall mean the protein known as Connective Tissue Growth Factor.

1.15 "Deliverables"

shall have the meaning specified in Section 2.3 hereof.

1.16 "Effective Date"

shall mean the date of commencement of this Definitive Agreement as mentioned on the cover page above.

1.17 "Exclusivity Period"

shall have the meaning specified in Section 6.1 hereof.

1.18 "FibroGen Confidential Information and Know-How"

shall mean all existing or future confidential technical or other information relating to (a) the Materials, (b) plasmids for the Product (c) FibroGen Information as defined in the CDA, (d) the FibroGen Technology, and/or (e) know-how for the development and manufacture of biopharmaceuticals, in each case (a) — (e), whether patented or not patented, and including, without limitation, all know-how, trade secrets, inventions, patent applications, processes, concepts, experimental methods, and results and any other information concerning FibroGen 's financial situation, business plans, and its research and product designs, that are disclosed or supplied to BI Pharma in connection with the Project, or used on behalf of FibroGen by BI Pharma pursuant to this Definitive Agreement.

1.19 "FibroGen Contribution"

shall mean the **[*]** provided by FibroGen and used in creation of the Product **[*]**, as set forth on Appendix 12.

1.20 "FibroGen Intellectual Property"

shall have the meaning specified in Section 9.2.1 hereof.

1.21 "FibroGen Technology"

shall mean (i) the Materials, including the FibroGen Contribution, (ii) the Product, and any modifications, derivatives, or fragments thereof, and (iii) the Technology of FibroGen developed or obtained by or on behalf of FibroGen (x) prior to the Effective Date or (y) independent of and without the use of BI Pharma Confidential Information and Know-How.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

1.22 “Improvements”

shall mean all Technology, discoveries and inventions, and all modifications, derivatives and improvements thereto or new uses thereof (whether or not protectable under patent, trademark, copyright or similar laws) that are discovered, developed or reduced to practice by BI Pharma in the performance of this Definitive Agreement or the ATP.

1.23 “Knowledge”

shall mean that which a Party **[*]**.

1.24 “Manufacturing Titer”

shall mean the yield of Product obtained from a particular manufacturing run after purification, expressed in grams of Product per liter of media used in such manufacturing run.

1.25 “Materials”

shall mean cDNA encoding a human antibody directed to CTGF and currently designated by FibroGen as FG-3019, cell lines, constructs, reagents, antibodies and/or other materials as laid down in detail in Appendix 1, as amended from time to time, and any know-how or data relating directly thereto and provided with such cDNA to BI Pharma by or on behalf of FibroGen.

1.26 “Other Improvements”

shall have the meaning set forth in Section 9.2.3.

1.27 “Process”

shall mean all the steps involved in the BI Pharma in-part proprietary and in-part non-proprietary manufacturing process using the Product **[*]** to produce the Product, including, without limitation, the manufacture, testing and packaging thereof.

1.28 “Process Description”

shall mean a controlled document, approved by authorized technical and quality representatives of both Parties, that documents the general outline of the Process. It includes all relevant Process parameters to be met and equipment and raw materials to be used.

1.29 “Product”

shall mean the human monoclonal antibody directed at CTGF, expressed from the FibroGen Contribution provided to BI Pharma and formulated either as bulk drug substance or in final dosage form as drug product, as the context requires.

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1.30 "Project"

shall mean the activities set forth on the Project Plans attached in Appendix 2, as may be amended from time to time, including without limitation the cell line development program and process development program for the Product.

1.31 "Project Fee"

shall have the meaning specified in Section 3.1 hereof.

1.32 "Project Manager"

shall have the meaning specified in Section 2.1.1 hereof.

1.33 "Project Team"

shall have the meaning specified in Section 2.1.2 hereof and at the Effective Date shall consist of the persons listed in Appendix 3.

1.34 "QAA"

shall mean the Quality (Assurance) Agreement entered into between the Parties simultaneously with this Agreement and attached hereto as Appendix 6.

1.35 "Specification(s)"

shall mean all the tests, analytical methods and acceptance criteria and/or limits, and the results thereof, as applicable, agreed by the Parties, within which the Product has to conform to be considered acceptable by FibroGen, attached hereto as Appendix 9. The Parties are in agreement, that in the first instance they will agree on **[*]**, which shall be fixed to final Specifications **[*]** in accordance with Section 2.4.

1.36 "Steering Committee"

shall have the meaning specified in Section 2.1.3 hereof.

1.37 "Technology"

shall mean all cDNA, cell lines, cell banks, master cell banks, constructs, reagents, antibodies and/or other tangible materials, methods, techniques, processes, trade secrets, copyrights, know-how, data, documentation, regulatory submissions, specifications and other intellectual property of any kind (whether or not protectable under patent, trademark, copyright or similar laws).

2. Cooperation between the Parties in the Course of the Project

2.1 Personnel

2.1.1. Designation of Project Manager

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Upon commencement of this Definitive Agreement BI Pharma and FibroGen will each appoint a Project Manager who will coordinate and supervise the Project including communication of all instructions and information concerning the Project to the other Party. The Project Manager will serve as contact person for the other Party. Each Project Manager will be available on an agreed **[*]** basis for consultation at prearranged times during the course of the Project. Project Managers shall be copied on all correspondence by other Project Team members and all correspondence between the Parties. In the absence of the Project Manager, a substitute shall be appointed. Additional modes or methods of communication and decision making may be implemented with the mutual written consent of each Party. Each Party will use reasonable efforts to provide the other Party with **[*]** prior written notice of any change in such Party's Project Manager.

2.1.2. Project Team

The Parties shall establish a Project Team consisting of the necessary disciplines and their respective Project Manager to (a) ensure the progress of the Project, (b) coordinate the performance of the Project, and (c) facilitate communication among the Parties. Each Project Team member shall have knowledge and ongoing familiarity with the Project and will possess the authority to make decisions on matters likely to be raised in the Project Team. Notwithstanding Section 2.1 each Party shall have the right to substitute its members of the Project Team as needed from time to time by giving written notice to the other Party due time in advance.

The Project Team shall meet in person or by means of a video conference or teleconference on a periodic basis (a) as agreed by the Project Managers within **[*]** after written request for such meeting by either Party, or (b) as specified in the Project Plan (Appendix 2).

The Project Team shall oversee the Project. Prior to each meeting of the Project Team the Parties will distribute to each other written copies of all materials, data and information arising out of the conduct of their activities hereunder.

Each Party shall bear its own costs associated with such meetings and communications. It is the right of each Party to call for a Project Team meeting according to the covenants of this Section 2.1 upon written request at any time. In such case the meeting will be held at the other Party's offices (or by means of videoconference or teleconference upon suggestion of the requesting Party) at a time mutually agreed to by both Project Managers if not otherwise agreed between the Parties.

The requesting Party shall prepare minutes of the meeting which shall be circulated promptly following the meeting.

The current members of the Project Team and the Project Managers are set forth in Appendix 3 attached hereto.

2.1.3. Steering Committee

The Parties shall form a Steering Committee, to which each Party will appoint **[*]** executive employees, including the Project Managers, all of whom shall be familiar with the Project. The Steering Committee shall have general oversight and review of the activities of the Project Team and shall resolve any issues referred to the Steering Committee by the Project Team.

The Steering Committee shall meet within **[*]** after receipt of a written request by one Party to the other Party. The request shall describe the matter in dispute and the solution which the requesting Party proposes to be decided.

The Steering Committee will take action by unanimous consent of the Parties, with the representatives of each Party collectively having a single vote, or by a written resolution signed by all of the representatives. If the Steering Committee is unable to reach unanimous consent on a particular matter, then the matter will be referred to the chief executive officers of the Parties, who will use good faith efforts to resolve such matter.

The members of the Steering Committee and the names of the respective chief executive officers of the Parties are set forth in Appendix 3 attached hereto.

2.2 Conduct of the Project and BI Pharma's Work and Tasks

The Parties shall engage in the Project upon the terms and conditions set forth in this Definitive Agreement. In the course of this Definitive Agreement the Parties shall perform the Project as laid down and detailed in Appendix 2 (Project Plan including Project Timeline). Upon mutual agreement by the Parties, additional manufacturing runs may be performed by BI Pharma under work plans added as amendments to Appendix 2.

Each Party shall fully and reasonably cooperate with the other Party to provide appropriate information and assistance to the other Party in connection with the Project, responding in a reasonable and timely manner with respect to all reasonable requests for information and approval. Neither Party shall be liable for any delays in its performance of the Project to the extent caused solely by the other Party's failure to provide in a reasonably timely manner any information or approval reasonably requested by the other Party.

BI Pharma shall assign a sufficient number of professionally qualified personnel to perform the Project and shall perform its tasks under this Definitive Agreement according to the generally acceptable professional and then current industry standards and subject to terms and conditions as set forth herein, at all times in compliance in all material respects with all requirements of applicable laws and regulations. BI Pharma will **[*]** to achieve the estimated timelines as laid down in Appendix 2. Changes to the Project Plan including the Project Timeline, if any, shall require the written consent of both Parties.

2.3 Deliverables

BI Pharma will deliver the Deliverables laid down in detail in the Project Plan within the timelines laid down in the Project Plan (Appendix 2) to FibroGen. Following the completion of the activities required under the Project, BI Pharma will provide to FibroGen then available Product and a summary containing manufacturing and analytical testing, including without limitation, the information and the results of the respective development phase according to the workscope as further described in the Project Plan (Appendix 2).

2.4 Project is Experimental in Nature

As the Product has never been produced at **[*]**, FibroGen acknowledges that the Project is experimental in nature and that no favorable or useful result **[*]** can be assured by BI Pharma. However, after **[*]** (**[*]**), the Parties shall in good faith agree on a revision (if necessary) to the preliminary specifications that shall then be the Specifications for subsequent runs in subsequent campaigns that shall form a basis for rejection or acceptance of the Product

produced in any additional runs at **[*]** under the provisions of Section 4.1, and, provided that the Process and the Product **[*]** have not been materially changed, the Project shall no longer be considered experimental in nature and the obligation to meet Specification shall apply to all future runs at **[*]**.

2.5 Additional Work

In case that the Parties agree on additional work for the benefit of the Project, BI Pharma shall perform such additional work to sustain the progress of the Project on conditions in terms of money, time and scope to be subject to mutual written agreement of the Parties hereto and defined in an amendment to the Project Plan.

2.6 FibroGen Confidential Information and Know-How and Material

To the extent not already transferred by FibroGen under the Authorization to Proceed, FibroGen shall transfer the Materials to BI Pharma subject to the terms of this Section 2.6, and BI Pharma shall use such Materials solely to conduct the Project in accordance with the Project Plan, this Definitive Agreement, or as otherwise may be agreed to by the Parties in writing. The Materials will not be used by BI Pharma in connection with any diagnosis, treatment or any activity in humans or for any use not directly related to the Project. BI Pharma's use of the Materials will be in compliance with all applicable federal, state and local laws and regulations in Germany. BI Pharma accepts the Materials with the knowledge that they are experimental. The Materials may not be transferred or otherwise made available, in whole or in part, by BI Pharma to any other individual, entity or institution, including institutions and entities affiliated or under contract with BI Pharma without the prior written consent of FibroGen, which may be withheld by FibroGen for any reason. Such consent is **[*]** on a **[*]** as further discussed, agreed and documented in the Project Team.

The Materials are the property of FibroGen. It is agreed that the transfer of the Material hereunder shall be a bailment and shall not constitute a sale of Material or a grant, option or license of any patent or other rights except to allow BI Pharma to perform the Project. FibroGen shall retain and have all right, title and interest in and to the Materials.

Any Improvements that arise from any unauthorized use of FibroGen Confidential Information and Know-How (i.e. that are not specifically authorized under this Agreement) shall be owned by and are hereby assigned to FibroGen.

FibroGen will inform BI Pharma in a timely manner about any safety issues of which FibroGen becomes aware relating to the handling of the Materials and the Product (including but not limited to the FibroGen Contribution), after the date of the execution of this Definitive Agreement.

BI Pharma shall at all times take reasonable measures to protect the Materials from loss or damage and in no event measures less than employed by BI Pharma in the protection of its own proprietary materials, and shall promptly notify FibroGen if at any time it believes any Materials have been damaged, lost or stolen. BI Pharma will ensure that the Materials remain free and clear of any liens or encumbrances.

THE MATERIALS HAVE BEEN GIVEN TO BI PHARMA **[*]** AND ARE PROVIDED "AS IS" WITH NO WARRANTIES EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

FibroGen and BI Pharma hereby acknowledge and agree that FibroGen is providing FibroGen Confidential Information and Know-How to BI Pharma for its use by BI Pharma on behalf of and for the benefit of FibroGen for the purposes of this Definitive Agreement, and BI Pharma will make use thereof solely for such purposes and FibroGen hereby consents to such use.

2.7 General policy regarding BI Pharma Confidential Information and Know-How

A general policy regarding BI Pharma Confidential Information and Know-How is laid down in Appendix 5. In the event of any inconsistency between Appendix 5 and this Definitive Agreement, this Definitive Agreement shall prevail.

3. Project Fee and Payments

3.1 Project Fee

As consideration for BI Pharma's performance of the Project, FibroGen shall pay BI Pharma the fees set forth in the payment schedule in Appendix 2 (the "Project Fee"). BI Pharma's **[*]** for its performance of the Project, including without limitation, **[*]** in the Project Fees. BI Pharma will inform FibroGen and seek its consent in advance of including any raw materials in the Process that will cause extraordinary costs.

3.2 Invoicing and Payment

BI Pharma shall invoice FibroGen for Project Fees and for Product intended for clinical use according to the Payment Schedule in Appendix 2.

FibroGen shall make payment of all undisputed invoiced amounts net **[*]** from the date of receipt of BI Pharma's invoice. If FibroGen fails to make timely payment when due under this Definitive Agreement, interest shall accrue at a fixed annual rate equal to **[*]** in The Wall Street Journal on the day that payment was due. All payments due under this Definitive Agreement shall be paid in Euros by wire transfer or by such other means agreed to in writing by the Parties. FibroGen will provide at least **[*]** advance notice to BI Pharma of each wire transfer to the bank account as BI Pharma shall designate in writing.

4. Delivery Terms of Product for Clinical Use

4.1 General

BI Pharma shall (a) deliver to FibroGen or, (b) at the request of FibroGen, store Product on a "bill and hold" basis for further processing, the agreed amounts of the Product produced according to the Project Plan in accordance with agreed upon schedules, at the prices set forth in Appendix 2. Delivery of all Product by BI Pharma shall be made **[*]** (Incoterms 2000). Material that is requested to be stored shall be held by BI Pharma for further processing and BI Pharma shall **[*]** for Product held for further processing upon acceptance of the Product by FibroGen, on the terms and conditions as set forth in Appendix 13. BI Pharma shall package and arrange for shipment of Product to the delivery address specified by FibroGen, all in accordance with the instructions of FibroGen, provided that FibroGen **[*]** of Product in accordance with **[*]**. Each shipment will include a Certificate of Analysis, a Confirmation of Compliance and such other documentation as reasonably required to meet all applicable statutory and regulatory requirements. Delivery of Product shall be subject to quality and other provisions affixed as Appendix 6 to this Definitive Agreement. The Parties shall cooperate reasonably to obtain all customs licenses or permits necessary to ship Product (the evaluation of which customs licenses or permits required shall be **[*]**), and no shipment shall be made until such licenses or permits, if any, have been obtained

FibroGen shall diligently examine Product delivered under this Definitive Agreement as soon as practicable after receipt. Notice of all claims arising out of (i) damage to or total or partial loss of Product or such other item in transit shall be given in writing to BI Pharma and the carrier or (ii) non-delivery shall be given in writing to BI Pharma within **[*]** after the date of BI Pharma's dispatch notice. FibroGen shall make damaged Product available for inspection and shall comply with the requirements of any insurance policy covering Product. BI Pharma shall offer FibroGen all reasonable assistance, **[*]**, in pursuing any claims arising out of the transportation of Product.

Except as otherwise provided herein and as set forth in Section 2.4, FibroGen shall have **[*]** from the date of delivery of Product in order to evaluate Product and accept or reject such delivery; provided that FibroGen shall only be permitted to reject Product if (a) BI Pharma fails to deliver a Certificate of Analysis and a Confirmation of Compliance, (b) the Product does not meet the Acceptance Criteria or (c) the Product, if intended for human use, was not manufactured in accordance with cGMPs and applicable laws at the place of manufacturing.

FibroGen will have no obligation to accept any Product that does not meet the foregoing requirements. If FibroGen determines after reviewing the relevant documentation and performing reasonable testing that any Batch does not meet such requirements, or if Product is determined by BI Pharma to be unsuitable for release, then the Parties will mutually agree, as promptly as reasonably possible, whether (a) to produce a new Batch at BI Pharma's cost and expense, including the costs of materials used in the manufacture of such Batch, or (b) to rework or reprocess the Batch, at BI Pharma's cost and expense, so that the Batch can be deemed to have been manufactured in compliance with cGMP and the agreed Process Description, and to conform to the Acceptance Criteria, or (c) BI Pharma shall credit in full the fees and expenses paid by FibroGen for such Batch, including the costs of materials used in the manufacture of such Batch or, if there are no further orders of Product or such credit exceeds the amount to be paid by FibroGen for any future orders, refund all uncredited or excess amounts to FibroGen. If the remedy set forth in either (a) or (b) is agreed to be performed by BI Pharma, then BI Pharma shall start the applicable work as soon as reasonably practicable, such that the next available manufacturing slot shall be used by BI Pharma to produce Product, with the goal to resupply within **[*]** from time of rejection by FibroGen. For the avoidance of doubt, if drug product is not accepted by FibroGen as provided above, then BI Pharma's obligations set forth above shall apply both to the drug product and the bulk drug substance contained therein.

Notwithstanding the foregoing, the Parties agree that BI Pharma will perform a minimum of **[*]** runs in the initial campaign for production of the Product at the **[*]** scale, as outlined in the Project Plan. FibroGen shall accept or reject the Product for (i) the **[*]** runs according to the procedures and requirements set forth in this Section 4.1, and (ii) the **[*]** or — if applicable — subsequent runs according to the procedures and requirements set forth in this Section 4.1, provided, however, that with respect to any such **[*]** and — if applicable — subsequent runs, FibroGen shall only be responsible to accept and pay for the Product produced in the event that such Product meets the Acceptance Criteria and is qualified for use by regulatory authorities in **[*]** for use by FibroGen in clinical studies.

In the event FibroGen rejects Product for failure to meet Acceptance Criteria, BI Pharma shall have the right to sample and retest the Product, which shall be done as soon as practicable. In the event of a discrepancy between FibroGen's and BI Pharma's test results such that one Party's results fall within the Acceptance Criteria and the other Party's test results fall outside

the Acceptance Criteria, or there exists a dispute over whether such failure is due (in whole or in part) to acts or omissions of FibroGen or any third party after Delivery, the Parties shall cause a testing laboratory agreeable to both Parties to perform comparative tests and/or analyses on samples of the alleged defective Product. The testing laboratory's results shall be in writing and shall be final and binding save for manifest error on the face of its report. Unless otherwise agreed to by the Parties in writing, the costs associated with such testing and review shall be borne by the Party against whom the testing laboratory rules. The testing laboratory shall be required to enter into written undertakings of confidentiality no less burdensome than set forth or referred to by this Definitive Agreement.

4.2 Access to Facility

Upon reasonable notice FibroGen and its duly authorized representatives (which will consist of at least one quality representative and one technical representative) will — upon BI Pharma's agreement regarding timing and specific manufacturing areas, which shall not be unreasonably withheld — have reasonable access to BI Pharma's facilities used to manufacture Product, during operating hours and during active manufacturing of Product, to inspect the facility and manufacturing process to ascertain compliance by BI Pharma with the requirements of cGMP, the Acceptance Criteria and applicable German law in a manner that is customary in the biopharmaceutical contract manufacturing business.

4.3 Recall

BI Pharma shall reimburse to FibroGen the cost of any recall due to BI Pharma's breach of this Definitive Agreement or the Quality Agreement, or BI Pharma's negligence or willful misconduct by replacing the respective Product (or credit or refund, as set forth in Section 4.1, third paragraph (a) and (c), respectively) and paying the costs to return the Product.

5. Ownership and Use of Project Data and Cell Banks.

5.1 Project Data

In consideration of the Project Fee:

(a) BI Pharma shall carry out the Project and provide FibroGen with a summary containing the results from manufacturing and analytical release and also shall provide FibroGen with summary report with results on the various stages of cell line development and process development;

(b) BI Pharma shall supply FibroGen with data, results and information required to comply with any request of any applicable regulatory body or to comply with such regulatory body's requirement; and

(c) BI Pharma shall prepare the draft chemistry, manufacturing and controls section of any regulatory filing supporting the clinical development or application for marketing approval of the Product for **[*]** or other similar filing. FibroGen shall review, finalize and approve the chemistry, manufacturing and controls section of any regulatory filing drafted by BI Pharma. BI Pharma shall timely perform a final review of the chemistry, manufacturing and controls section of any such regulatory filing for accuracy of content of such section prior to filing by FibroGen with the relevant regulatory authorities. FibroGen may use the same information as provided for **[*]** for filing in other jurisdictions, in which regulatory approval is sought for which FibroGen gives BI Pharma prior written notice. Certain trade secret information may be provided by BI Pharma via DMF or similar filing (e.g. to a notified body) directly to the respective authorities.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(d) For the avoidance of doubt, subject to FibroGen's confidentiality obligations hereunder and without affecting the ownership of Improvements as set forth in Section 9, all Product specific reports (including but not limited to development reports, including SOP's, if Product specific) generated as a result of the BI Pharma's performance under this Definitive Agreement will be the sole and exclusive property of FibroGen **[*]**. This should not prevent BI Pharma to comply with regulatory requirements.

5.2 Use of the Process

Except as set forth in this Definitive Agreement, the Process shall not be used by FibroGen outside the scope of this Definitive Agreement.

The BI Pharma Contribution or cells derived therefrom contain **[*]**, e.g. **[*]**, which use is **[*]**. Any use outside of this Definitive Agreement, e. g. **[*]** may affect BI Pharma´s and/or third party rights. BI Pharma hereby represents and warrants that the use of the BI Pharma Contribution, **[*]** and the Process pursuant to and in compliance with this Definitive Agreement, including pursuant to the licenses granted to FibroGen hereunder, as of the Effective Date does not, to the Knowledge of BI Pharma, infringe any third party rights, and that no third party has made any claim to the contrary.

5.3 Licenses

Terms and conditions for the use of BI Pharma Confidential Information and Know-How by FibroGen, are laid down in Appendix 4. BI Pharma hereby grants to FibroGen [*], irrevocable, non-exclusive, sublicenseable, license under BI Pharma Technology and the BI Pharma Confidential Information and Know-How to make, have made, use, import, offer for sale and sell the Product for all purposes subject to the terms set forth in this Definitive Agreement. In the event that BI Pharma exercises its Option(s) set forth in Section 6, this license shall be royalty-free, or royalty bearing depending upon the circumstances set forth in Appendix 4

6. [*] Manufacture

6.1 BI Pharma's Option for [*] Contract Manufacturing

6.1.1. BI Pharma Option Part 1

FibroGen hereby grants to BI Pharma the "BI Pharma Option Part 1", a first option to manufacture and supply **[*]** Product using the Process with the Product **[*]** on **[*]** basis. Such option must be exercised by BI Pharma no later than **[*]**, and such option will lapse if not exercised by BI Pharma by such date. This BI Pharma Option Part 1 for **[*]** Product at **[*]** scale by BI Pharma shall give BI Pharma the right and the obligation to conduct, to the extent Product is required by FibroGen, **[*]** runs at **[*]** scale per **[*]** period for a period of **[*]** periods commencing with **[*]**. In addition, BI Pharma will be entitled and obligated, to supply **[*]** of FibroGen's **[*]** Product requirement in a calendar year during such period, up to a total of **[*]** in any calendar year **[*]**. If however, FibroGen does not require **[*]** (defined as **[*]** or **[*]** in the **[*]** based on the respective Manufacturing Titer achieved by BI Pharma) in a particular **[*]** period, always subject to the agreed forecasting system and as further defined in any **[*]** supply agreement for the Product, FibroGen will **[*]**, which will be deemed to satisfy **[*]** obligation of FibroGen owed to BI Pharma.

6.1.2. BI Pharma Option Part 2

FibroGen hereby grants to BI Pharma the "BI Pharma Option Part 2", an option, exercisable by BI Pharma only if it has properly exercised the BI Pharma Option Part 1 and the Parties have entered into the **[*]** supply agreement described in Section 6.2, to increase **[*]** to the amount produced in **[*]** runs at **[*]** in any **[*]** period of the **[*]** periods measured from **[*]** and **[*]** to **[*]** in any such **[*]** period. Such option must be exercised by BI Pharma no later than **[*]** after receipt of written notification by FibroGen of proof of concept of the Product in the indication **[*]** (currently anticipated to occur in **[*]**, but subject to change based on FibroGen's Product and business plans), and such BI Pharma Option Part 2 will lapse if not exercised by BI Pharma by such date. Effective upon BI Pharma's proper exercise of the BI Pharma Option Part 2, **[*]** will be increased to the levels set forth in this paragraph.

6.1.3. Negotiations, etc.

It is hereby understood by the Parties that BI Pharma Option Part 1 and BI Pharma Option Part 2 to manufacture and supply the Product **[*]** are subject to **[*]** and **[*]** and **[*]**, which are **[*]**. Subject to BI Pharma Option Part 1 and BI Pharma Option Part 2, FibroGen will be free and BI Pharma will assist FibroGen to source Product from another manufacturer as described in the following paragraph, in a timely manner and taking into account the necessary lead time. The Parties also agree that if during the exclusive **[*]** supply period BI Pharma fails to timely fill any order for Product for any reason, **[*]** will be due on amounts of Product produced by another supplier and **[*]**.

6.1.4. Termination Right by FibroGen

On lapse of the BI Pharma Option Part 1 for any reason, or if BI Pharma materially breaches this Definitive Agreement, then (a) FibroGen may terminate the Definitive Agreement (subject, in the case of a material breach by BI Pharma only, to the terms described in Section 11.2.2, and (b) BI Pharma will (i) grant FibroGen **[*]**, irrevocable, non-exclusive, fully sublicensable, **[*]** license to all the BI Pharma Technology, the BI Pharma Confidential Information and Know-How, the BI Pharma Improvements and BI Pharma's interest in all Other Improvements; (ii) provide to FibroGen the manufacture and release documentation, in process and final Product standards, and other information regarding the Product including, without limitation, with respect to both (i) and (ii) all information, know how and intellectual property necessary to enable a knowledgeable manufacturer (i.e. FibroGen or a third party, as applicable) to establish the Process at such other manufacturing facility and thereby manufacture the Product using the Product **[*]** and the Process, including providing the **[*]** used in the Process or providing access to **[*]** that **[*]** used in the Process to such manufacturer, and (iii) assist such knowledgeable manufacturer in a reasonable Process and Technology transfer process sufficient to effect the foregoing at **[*]** to FibroGen.

6.2 Negotiation of the Definitive Exclusive [*] Manufacture and Supply Agreement

The Parties shall negotiate in good faith a **[*]** supply agreement upon such terms and conditions as they may agree. Such agreement is intended by the Parties to be concluded by **[*]**. However, the final execution date of said **[*]** supply agreement shall not be later than **[*]**.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

6.3 Non Execution of the Supply Agreement

In the case that (i) BI Pharma expressly waives all its rights laid down in Section 6.1 (i.e. it does not exercise either BI Pharma Option Part 1 or it lapses), or (ii) without agreement between the Parties to terms and conditions of a **[*]** supply agreement by **[*]**, or (iii) this Definitive Agreement is terminated by either Party other than by BI Pharma due to a material breach of this Definitive Agreement by FibroGen, or (iv) BI Pharma is not willing to perform **[*]** supply of the Product for FibroGen, of which circumstance BI Pharma must notify FibroGen no later than **[*]**, then, in addition to any other rights of FibroGen under this Definitive Agreement:

(a) If it has not already done so, BI Pharma will comply with its obligations under Section 6.1.3.

(b) **[*]** of the Process transfer will be **[*]**, except in the event of termination of this Definitive Agreement by FibroGen due to the material breach of BI Pharma, in which case, **[*]** shall **[*]**. These shall be the **[*]** with respect to the Process transfer, including without limitation, the transfer of any BI Pharma Confidential Information and Know-How to FibroGen or a third party, in connection with such Process transfer or otherwise.

In the case described above that the Parties have not been able to agree to terms and conditions of a **[*]** supply agreement by **[*]**, the Parties agree that the **[*]** of the license granted to FibroGen shall be calculated as set forth in Appendix 4.

7. Representations, Warranties and Indemnification

The Parties acknowledge that the Definitive Agreement supersedes the ATP as set forth in Section 12.10; however, each Party hereby agrees that each of the representations, warranties, and covenant made in this Section 7 shall be made both as of the Effective Date and as of July 12, 2006.

7.1 Mutual Representations, Warranties and Covenants

Each Party hereby represents, warrants and covenants to the other Party as follows:

a. it is a corporation duly organized and validly existing under the laws of the state or other jurisdiction of incorporation or formation;

b. the execution, delivery and performance of this Definitive Agreement by such Party has been duly authorized by all requisite corporate action;

c. it has the power and authority to execute and deliver this Definitive Agreement and to perform its obligations hereunder;

d. it will not during the term enter into any agreements, contracts or other arrangements that would conflict with its obligations under this Definitive Agreement.

7.2 FibroGen Warranties

FibroGen hereby warrants that:

a. FibroGen has the right to provide the FibroGen Confidential Information and Know-How and is not aware of any third party rights that will affect supply or use of the FibroGen Confidential Information and Know-How to and by BI Pharma;

b. FibroGen is not aware of any special or unusual hazards involved in handling the Product of which it has failed to inform BI Pharma; and that it will inform BI Pharma after the date of execution of this Definitive Agreement only, of any changes related thereto coming to FibroGen's attention after the date of execution of this Definitive Agreement; and

c. FibroGen has full corporate authority to enter into this Definitive Agreement and the Definitive Agreement is binding upon FibroGen in accordance with its terms; and

d. to the best of its Knowledge at the Effective Date the FibroGen Contribution and its use in the Product **[*]** by BI Pharma does not infringe the intellectual property rights of any third party and it will promptly notify BI Pharma in writing should it become aware of any claims asserting such infringement or of any third party intellectual property rights, that would be infringed by the FibroGen Contribution.

7.3 BI Pharma Warranties

BI Pharma hereby warrants that:

a. BI Pharma is entitled to use the Biberach Facility and BI Pharma Confidential Information and Know-How, for the purposes set forth in this Definitive Agreement; and

b. BI Pharma is not aware of any special or unusual hazards that would arise as a result of its carrying out of the Project as planned; and

c. BI Pharma has full corporate authority to enter into this Definitive Agreement and the Definitive Agreement is binding upon BI Pharma in accordance with its terms.

d. BI Pharma has the right, without restriction, to grant the licenses granted under this Definitive Agreement

e. all Product that is required to be produced to cGMP standards will, at the time of delivery to FibroGen, (a) have been manufactured in accordance with such cGMP requirements and all other laws applicable at the place of manufacture, the Process Description approved by FibroGen, and the Acceptance Criteria, and (b) not be adulterated or misbranded under the United States Federal Food, Drug and Cosmetic Act, 21 U.S.C. §321 et seq., as amended from time to time;

f. it has not been debarred, nor is it subject to a pending debarment, and that it will not use in any capacity in connection with the services under this Definitive Agreement any person who has been debarred pursuant to section 306 of the FDCA, 21 U.S.C. § 335a, or who is the subject of a conviction described in such section. BI Pharma agrees to notify FibroGen in writing immediately if BI Pharma or any person who is performing services under this Definitive Agreement is debarred or is the subject of a conviction described in section 306, or if any action, suit, claim, investigation, or proceeding is pending, or to BI Pharma's Knowledge, is threatened, relating to the debarment or conviction of BI Pharma or any person performing services under this Definitive Agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

g. to the best of its Knowledge at the Effective Date its performance under this Definitive Agreement including, but not limited to, the BI Pharma Contribution, and its use in the Product **[*]**, and/or the Process, by BI Pharma, FibroGen or a third party manufacturer of FibroGen, does not infringe the intellectual property rights of any third party and it will promptly notify FibroGen in writing should it become aware of any claims asserting such infringement or of any third party intellectual property rights, that would be infringed by the BI Pharma Contribution, and its use in the Product **[*]** and/or the Process; and

h. as of the Effective Date no third party has asserted any claim or lawsuit against BI Pharma claiming infringement of any intellectual property owned by a third party with relation to BI Pharma Contribution and/or the Process, or any part or component thereof.

For avoidance of doubt, all BI Pharma and FibroGen liability or indemnification obligations that might result from the representations and warranties under this Section 7.3 are always subject to the limitations set forth in Section 8.1 of this Definitive Agreement.

7.4 Process for Defense of Infringement

Subject to each Party's indemnification obligations, in the event that there occurs a Claim (as defined below), the Parties shall follow the following procedures with respect to the defense of the Claim:

- BI Pharma agrees that if a third party threatens or asserts any claim or files any lawsuit, claiming that BI Pharma intellectual property utilized or necessary for manufacture and production of the Product, including, without limitation, the BI Pharma Contribution or the Product **[*]** or the Process, or the use thereof, constitutes infringement of any intellectual property owned by a third party (each, a "Claim"), BI Pharma will promptly and timely inform FibroGen of such Claim, and BI Pharma shall have the first right to negotiate, litigate and/or settle any such Claim, and shall defend any such Claim unless **[*]** for BI Pharma **[*]** from any settlement or judgment resulting from such Claim, provided, that FibroGen shall have the right to fully participate in the litigation, negotiation and settlement of all such Claims. For the avoidance of doubt, the **[*]**, as used in this paragraph shall be **[*]** based on the BI Pharma Intellectual Property and **[*]** under this Definitive Agreement.
- BI Pharma will keep FibroGen informed about such negotiation or litigation at all times, including all material events related thereto, and in the event that the amounts paid or to be paid by BI Pharma in settlement of any such Claim or group of related or unrelated Claims appear reasonably likely to exceed, individually or in the aggregate, BI Pharma's indemnification obligations, or any contemplated settlement would place any obligations or restrictions upon FibroGen, then BI Pharma shall immediately inform FibroGen.
- BI Pharma grants FibroGen "most favored nation" status with respect to any settlement entered into with respect to a Claim; i.e. BI Pharma agrees that in the event that BI Pharma settles any Claim, in whole or in part, including without limitation by entering into a license, then such settlement shall cover FibroGen and shall contain terms individually and in the aggregate equally as or more favorable to FibroGen as to BI Pharma and/or to any other third party, including, without limitation, any affiliates of BI Pharma and/or Boehringer Ingelheim GmbH. If BI Pharma settles any Claim in whole or in part on terms individually or more favorable to BI Pharma and/or to any other third party as to FibroGen, then the terms and conditions of the settlement with respect to FibroGen shall automatically adjust to the most favorable of such terms.

- FibroGen shall not be responsible to pay for any costs of any settlement by BI Pharma of any Claim(s) that exceed BI Pharma's indemnification obligations or be bound by any obligations or restrictions agreed to by BI Pharma in any such settlement, without the prior written consent of FibroGen, which may be granted or withheld in its sole discretion.

In the case that BI Pharma decides not to negotiate, litigate or settle any Claim, FibroGen shall have the right to negotiate, litigate and settle any such Claim, and, provided that FibroGen decides to pursue such negotiation, litigation or settlement, BI Pharma will provide all reasonable cooperation to FibroGen such that FibroGen may appropriately defend such Claims. For the avoidance of doubt, BI Pharma's indemnification obligations with respect to any Claim shall apply whether or not BI Pharma defends against (i.e. negotiates, litigates or settles) such Claim.

7.5 Disclaimer of Warranties

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS DEFINITIVE AGREEMENT, NEITHER PARTY MAKES ANY WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO ANY INTELLECTUAL PROPERTY, TECHNOLOGY, RIGHTS, RESULTS OF THE PROJECT; THE DELIVERABLES OR OTHER SUBJECT MATTER OF THIS DEFINITIVE AGREEMENT OR THAT THE PROJECT WILL RESULT IN A COMMERCIALLY-VIABLE PROCESS, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

8. Limitation of Liability, Indemnification and Insurance

8.1 Limitation of Liability

8.1.1. General

BI Pharma has no knowledge or awareness of or control over the manner in which FibroGen intends to use the results of the Project, the Product or the Deliverables, if any, obtained in the Project and in particular does not know or control how FibroGen intends to use such Product or results in clinical studies.

Except for willful misconduct, for which there shall be no limitation on liability, BI Pharma´s liabilities under Section 7 of this Definitive Agreement shall be limited to **[*]**. Except for willful misconduct, for which there shall be no limitation on liability, FibroGen's liabilities under Section 7 of this Definitive Agreement shall be limited to **[*]** with respect to any BI Pharma Confidential Information and Know-How.

BI Pharma will provide reasonable co-operation, if requested by FibroGen, on matters relating to the Project in the event of such claims.

8.1.2. No Consequential Damages

Under no circumstance either Party shall be entitled to incidental, indirect, consequential or special damages arising in connection with any default or breach of said Party's obligations, but — for the avoidance of doubt — the respective indemnification obligations of each Party shall not be considered incidental, indirect, consequential or special damages.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

8.1.3. Indemnification

BI Pharma shall indemnify, defend and hold FibroGen, its affiliates and their respective officers, directors, employees and agents harmless from and against all third party claims (including, but not limited to, claims relating to infringement of such third party's intellectual property), losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, resulting from or arising out of (i) BI Pharma's performance of any activities under this Definitive Agreement (or any omission in connection therewith), except to the extent resulting from or arising out of the breach of this Definitive Agreement by, or the negligence or willful misconduct of, FibroGen, and except for any third party infringement claims to the extent such claims arise out of the use of the FibroGen Contribution or the Materials in the performance of any activities under this Definitive Agreement, (ii) any breach of this Definitive Agreement by BI Pharma, (iii) BI Pharma's use of BI Pharma Technology including, to the extent included as part of the Product **[*]**, in the performance of the Activities, or (iv) BI Pharma's use of Improvements (including, to the extent included as part of the Product **[*]**) for any purpose. Notwithstanding anything to the contrary in this Section 8.1.2, BI Pharma's liability for third party claims, losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, under this Section 8.1.2 will be reduced to the extent such liability results from or arises out of any matter that falls within the scope of FibroGen's obligations under this Section 8.1.2. As a condition of this indemnification obligation, FibroGen must promptly notify BI Pharma of a covered claim, must tender to BI Pharma (and/or its insurer) full authority to defend or settle the claim, and must reasonably cooperate with the defending party. The amounts payable by BI Pharma under this Section 8.1.2 will be limited as set forth in Section 8.1.1.

FibroGen shall indemnify, defend and hold BI Pharma, its affiliates and their respective officers, directors, employees and agents harmless from and against all third party claims (including, but not limited to, claims relating to infringement of such third party's intellectual property), losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, resulting from or arising out of (i) any breach of this Definitive Agreement by FibroGen, (ii) any use (including but not limited to the use in clinical trials) of the Product and/or Materials by or on behalf of FibroGen, except to the extent resulting from or arising out of the breach of this Definitive Agreement by, or the negligence or willful misconduct of, BI Pharma, and except for any third party infringement claims to the extent such claims arise out of the use of BI Pharma Technology in the performance of any activities under this Definitive Agreement (or any omission in connection therewith), or (iii) the use of Improvements by FibroGen for any purpose. Notwithstanding anything to the contrary in this Section 8.1.2, FibroGen's liability for third party claims, losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, under this Section 8.1.2 will be reduced to the extent such liability results from or arises out of any matter that falls within the scope of BI Pharma's indemnification obligations under this Section 8.1.2. As a condition of this indemnification obligation, BI Pharma must promptly notify FibroGen of a covered claim, must tender to FibroGen (and/or its insurer) full authority to defend or settle the claim, and must reasonably cooperate with the defense. The amounts payable by FibroGen under this Section 8.1.2 will be limited as set forth in Section 8.1.1.

8.2 Insurance

Each of BI Pharma and FibroGen shall maintain during the term of this Definitive Agreement and for a period of **[*]** thereafter, comprehensive general liability insurance including

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

products coverage, in amounts, which are reasonable and customary in the pharmaceutical industry for companies of comparable size and activities at their respective place of business. Such product liability insurance shall insure against all mandatory liability, including liability for personal injury, physical injury and property damage. Upon a Party's written request the other Party shall within **[*]** provide the requesting Party with a written confirmation of the existence of such insurance. FibroGen shall have BI Pharma named as an additional insured party on any insurance policies described above. BI Pharma is self insuring in order to meet the obligations of this Section under this Definitive Agreement.

9. Intellectual Property

9.1 Existing Intellectual Property Rights

BI Pharma hereby acknowledges that FibroGen is the owner of FibroGen Confidential Information and Know-How and the FibroGen Technology and BI Pharma shall acquire no rights, title or interest whatsoever in or to any of FibroGen Confidential Information and Know-How or FibroGen Technology, except as specifically provided for in this Definitive Agreement.

FibroGen hereby acknowledges that BI Pharma is the owner of BI Pharma Confidential Information and Know-How and the BI Pharma Technology and FibroGen shall acquire no rights, title or interest whatsoever in or to any of BI Pharma Confidential Information and Know-How or BI Pharma Technology, except as specifically provided for in this Definitive Agreement.

FibroGen hereby grants to BI Pharma and BI Pharma hereby accepts for the purpose of this Definitive Agreement a non-exclusive, non-sub-licensable, royalty free, license to use FibroGen Confidential Information and Know-How and FibroGen Technology solely to develop the Process and to manufacture the Product for clinical purposes under this Definitive Agreement.

9.2 New Intellectual Property and Project Results

9.2.1. FibroGen

Improvements that (i) relate to FibroGen Confidential Information and Know-How, and (ii) do not relate to BI Pharma Confidential Information and Know-How, and (iii) which arise out of or in connection with BI Pharma's activities performed under this Definitive Agreement (collectively, "FibroGen Intellectual Property") will be exclusively owned by FibroGen and FibroGen shall control patent prosecution and maintenance thereof. BI Pharma agrees to assign and hereby assigns to FibroGen all right title and interest it may have in any FibroGen Intellectual Property. BI Pharma shall provide reasonable assistance to FibroGen for any action which may be necessary to assign or otherwise transfer any rights to FibroGen Intellectual Property contemplated by this Section 9.2. BI Pharma shall notify FibroGen within **[*]** of becoming aware of such FibroGen Intellectual Property.

9.2.2. BI Pharma

Improvements that (i) relate to BI Pharma Confidential Information and Know-How, and (ii) do not necessarily rely upon FibroGen Confidential Information and Know-How, and (iii) which arise out of or in connection with BI Pharma's performance of this Definitive Agreement (collectively, "BI Pharma Intellectual Property") will be exclusively owned by

BI Pharma, and BI Pharma shall control patent prosecution and maintenance thereof, except to the extent such Improvements may solely relate to the Process, provided, however, that if BI Pharma intends to file a patent application on BI Pharma Intellectual Property that exemplifies an embodiment using FibroGen Technology and/or the FibroGen Confidential Information and Know How (i.e. it contains an example wherein FibroGen Technology and/or the FibroGen Confidential Information and Know How is used as an example of the invention) (a "FibroGen Embodiment"), BI Pharma will provide FibroGen with a copy of the application for review not less than **[*]** prior to the intended filing date, and FibroGen will have the right to amend any section of the application describing the FibroGen Embodiment prior to filing. In addition, as soon as practicable after the initial filing of any such application, BI Pharma will amend the application to replace the FibroGen Embodiment with an embodient based on technology that does not constitute the FibroGen Technology or Confidential Information and Know How. If a granted or issued claim contained within BI Pharma Intellectual Property may not be practiced without the use of FibroGen Technology or FibroGen Confidential Information and Know How, BI Pharma hereby assigns and shall promptly execute any documents necessary to assign the patent to FibroGen, thereby giving FibroGen complete and sole ownership of the patent, at no cost to FibroGen. FibroGen agrees to assign and hereby assigns to BI Pharma all right title and interest it may have in any BI Pharma Intellectual Property except to the extent it relies upon FibroGen Confidential Information and Know How, to which extent such right title and interest shall be retained by FibroGen under this Definitive Agreement. FibroGen shall provide reasonable assistance to BI Pharma for any action which may be necessary to assign or otherwise transfer such rights to BI Pharma Intellectual Property contemplated by this Section 9.2.

9.2.3. Other Improvements

a. Any Improvements that are not FibroGen Intellectual Property or BI Pharma Intellectual Property shall be defined as "Other Improvements" and shall be jointly owned by BI Pharma and FibroGen, with the parties entitled to practice the same as joint owners. Any Other Improvements shall be listed on Appendix 10, hereto, which shall be amended from time to time upon the creation of any additional Other Improvements. For the avoidance of doubt, know-how pertaining to **[*]** and **[*]** this Definitive Agreement, but **[*]** in the exercise of its rights under this Definitive Agreement may be **[*]**, provided, that, notwithstanding the foregoing, BI Pharma may not use any Other Improvement that relates to FibroGen Technology in the production of antibodies to CTGF, including the Product, modifications and derivatives thereof, without FibroGen's prior written consent, **[*]**, provided, however, that it **[*]** for **[*]**.

For avoidance of doubt, the Parties agree that the Product **[*]** and those portions of the Process that relate specifically to the Product or the Product **[*]** are Other Improvements, and FibroGen shall own the Product **[*]**, however FibroGen hereby agrees **[*]**.

In the event that either BI Pharma or FibroGen desires to file a patent application that contains the other Party's Technology or Confidential Information and Know How, then the Party filing the application will provide the other Party with a copy of the application for review not less than **[*]** prior to the intended filing date, in order that the other Party may review the application such that it may amend the disclosure of its Technology or Confidential Information and Know-How, and the Party filing the application shall comply with all such requests for amendment.

b. BI Pharma hereby grants and agrees to grant to FibroGen a non-exclusive, **[*]** fully sublicensable license to BI Pharma's interest under all Other Improvements developed, conceived or reduced to practice in the performance of the Authorization to Proceed or this Definitive Agreement to make, have made, use, import, sell, offer for sale and have sold the Product.

c. The Parties shall meet and confer in good faith with regard to establishment and implementation of efforts to pursue patent protection for the Process, including, but not limited to, BI Intellectual Property comprising any part thereof. If BI Pharma elects not to pursue, or intends to abandon or not to file or maintain any patent or patent application in any jurisdiction, reasonable notice of which shall be given to FibroGen, FibroGen shall be entitled to pursue or maintain such patent or patent application, as applicable, and BI Pharma agrees to assign to FibroGen all right, title and interest it may have to such items of intellectual property.

d. FibroGen hereby grants to BI Pharma and BI Pharma hereby accepts for the purpose of pursuing the Project under this Definitive Agreement a non-exclusive, non-sub-licensable (except to BI Pharma affiliates), royalty-free, license to use the FibroGen Intellectual Property solely to develop the Process, and to use the Process solely for the manufacturing of the Product for clinical purposes in accordance with this Definitive Agreement.

e. The Parties shall be obligated to acquire the inventions and rights on the inventions made under this Definitive Agreement of its employees, consultants, agents and representatives. Employee invention compensation claims arising under the German Law on Employee Inventions ("Arbeitnehmererfindergesetz") shall be borne by the Party that is exclusively entitled to own such invention, following the allocation of intellectual property as set forth in this Definitive Agreement, provided, that each Party shall have the right to decline to exploit or abandon its rights to any such invention and avoid paying any compensation therefore, provided, in the event that any such invention is subject to the licenses granted by BI Pharma to FibroGen hereunder, then not less than **[*]** prior to notifying the inventing employee(s) of its intention to decline to exploit and/or abandon such invention, BI Pharma shall offer to FibroGen the right to pursue protection of and exploit such invention and, if accepted by FibroGen within the **[*]** prior to the intended notification date (or such later date if extended), BI Pharma shall assign all rights to such invention exclusively to FibroGen on an irrevocable, **[*]**, and **[*]** to **[*]** under the **[*]**.

f. Subject to the terms and conditions contained in this Definitive Agreement, BI Pharma shall be responsible for filing, prosecution and maintenance of patent applications and patents granted or generated under this Definitive Agreement and owned by BI Pharma. FibroGen shall be responsible for filing, prosecution and maintenance of patent applications and patents granted or generated under this Definitive Agreement and owned by FibroGen.

g. BI Pharma shall keep FibroGen and FibroGen shall keep BI Pharma reasonably informed about prosecution of any patent applications and maintenance of any patents generated under this Definitive Agreement, including, without limitation, compliance with the terms of this Section 9.

10. Confidentiality

Exchange of confidential information by the Parties shall be subject to the terms and conditions of the Confidentiality Agreement; provided, however, the Parties hereby agree that the Confidentiality Agreement shall apply to any BI Pharma Confidential Information and Know-How disclosed by BI Pharma to FibroGen and to any FibroGen Confidential Information and Know-How disclosed by FibroGen to BI Pharma in connection with this Definitive Agreement and the preceding agreements regarding the Product for a period of **[*]** following the termination or earlier expiration of this Definitive Agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Nothing in this Definitive Agreement or the Confidentiality Agreement shall be construed to restrict the Parties from disclosing any information as required by mandatory law or court order or other governmental order or request, provided in each case the Party requested to make such disclosure shall timely inform the other Party and use all reasonable efforts to limit the disclosure and maintain the confidentiality of such information to the extent possible, if it comprises BI Pharma Confidential Information and Know-How or FibroGen Confidential Information and Know-How. In addition, the Party proposing to make such disclosure shall permit the other Party to attempt to limit such disclosure by appropriate legal means.

Furthermore, a Party may make such disclosures of the other Party's Confidential Information and Know-How, to governmental entities to the extent reasonably necessary in connection with pursuit of intellectual property protection, development and commercialization activities related to the Product, and approvals to use and sell the Product. Moreover, upon BI Pharma's prior written approval, which shall not be unreasonably withheld or delayed, FibroGen may disclose BI Pharma Confidential Information and Know-How to entities with whom FibroGen has (or may have) a marketing and/or development collaboration for the Product and who have a specific need to know such information and who are bound by reasonable obligations of confidentiality and restrictions on use.

11. Term and Termination

11.1 Term

This Definitive Agreement shall take effect as of the Effective Date, but shall govern activities originally performed under the Authorization to Proceed and shall expire upon completion of the Project, unless terminated earlier in accordance with this Definitive Agreement.

11.2 Right to Terminate

11.2.1. General

If it is apparent to either Party at any stage of the Project that

- it will not be possible to carry out the Project for scientific or technical reasons,
- the Parties cannot agree on any material changes or amendments to the scope of the Project Plan of this Definitive Agreement necessary to proceed with the Project, including, but not limited to, time lines, price, costs and the services to be subject to BI Pharma's obligations in Section 2.2

FibroGen may terminate this Definitive Agreement upon **[*]** prior written notice to the BI Pharma.

In addition, FibroGen may terminate this Agreement upon **[*]** notice for regulatory, commercial or medical developments only that have a material effect on its Product resulting in a discontinuation of the Product, provided, that if such developments have a material effect on the supply requirements but it is not finally determined to discontinue the Product, in which case FibroGen and BI Pharma shall work together to develop, if possible, a reasonable plan to respond to any such issues that arise, including indeterminate or extended delays that result from such developments.

11.2.2. Termination for Material Breach

This Agreement may be terminated at once by written notice by either Party, if the other Party breaches this Agreement in any material manner and shall have failed to remedy such default within **[*]** after written notice thereof from the terminating Party.

11.3 Effect of Termination

11.3.1. General

Upon the expiration or termination of this Agreement, not due to FibroGen default of its contractual obligation:

(a) In the event of termination as set forth in Section 11.2.1, no payments need be refunded by BI Pharma to FibroGen and the amount due to BI Pharma hereunder shall be limited to, **[*]** reasonably incurred by BI Pharma prior to such termination in respect of the purchase of supplies or raw materials etc., and **[*]** to **[*]**. BI Pharma shall mitigate all wind-down costs and non-cancellable expenses to the extent possible.

(b) At the request of FibroGen, BI Pharma shall destroy the Product **[*]** as well as the material derived from its culture or deliver the Product **[*]** and materials derived therefrom at FibroGen's request to FibroGen or a party nominated by FibroGen **[*]** and shall promptly return all FibroGen Confidential Information and Know-How to FibroGen; except for a copy and/or sample of each material for documentation purposes only. Except for the foregoing, BI Pharma´s responsibility to keep and store the Product **[*]** and any other materials shall terminate **[*]** after expiration or termination of this Agreement, and

(c) FibroGen shall promptly return all BI Pharma Confidential Information and Know-How to BI Pharma, except for a single copy and/or sample for documentation purposes only.

(d) At the request of FibroGen, BI Pharma shall ship all investments and raw material purchased in the course of the Project to FibroGen or a third contract manufacturer.

11.3.2. Surviving Provisions

As far as not expressly set forth in this Definitive Agreement the following provisions of this Definitive Agreement shall survive the termination or expiration of this Definitive Agreement: 1, 2.6, 4.3, 5, 6, 7, 8, 9, 10, 11, 12.

In the case of termination by BI Pharma due to material breach based on willful misconduct of FibroGen, all licenses granted by BI Pharma under this Definitive Agreement shall be null and void and neither FibroGen nor any third party on behalf of or for FibroGen shall be entitled to further use BI Pharma Confidential Information and Know-How. The Parties agree that with regard to the payment obligations of FibroGen under this Definitive Agreement, a material breach based on willful misconduct of FibroGen shall only be considered to exist, if the delay in payment shall last for more than **[*]** after written notification by BI Pharma. It shall not be a material breach if there is a good faith dispute between the Parties with regard to that non payment.

12. Miscellaneous

12.1 Force Majeure

Neither Party shall be in breach of this Definitive Agreement if there is any failure of performance under this Definitive Agreement (except for payment of any amounts due hereunder) occasioned by any act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, prevention from or hindrance in obtaining energy or other utilities, labour disputes of whatever nature or any other reason beyond the control of either Party.

12.2 Conflict

In case of a conflict between this Definitive Agreement and any of its Appendices, this Definitive Agreement shall prevail, if not expressly determined differently in the respective Appendix with reference to this Definitive Agreement. For the avoidance of doubt, any modification to or amendment of the Specifications shall only be effective upon and amendment of this Definitive Agreement.

12.3 Publicity

No press release or other form of publicity regarding the Project or this Definitive Agreement shall be permitted by either Party to be published unless both Parties have indicated their consent to the form of the release in writing. Nothing in this Section shall prevent the Parties from disclosing this Definitive Agreement, if and as far as required by applicable laws, rules or regulations. However, the disclosing Party shall inform the other Party well in advance whenever reasonably possible and shall provide the opportunity to comment on such required disclosure (e.g. under SEC rules).

12.4 Notices

Any notice required or permitted to be given hereunder by either Party shall be in writing and shall be (i) delivered personally, (ii) sent by registered mail, return receipt requested, postage prepaid or (iii) delivered by facsimile with immediate confirmation of receipt, to the addresses or facsimile numbers set forth below:

If to BI Pharma:
Boehringer Ingelheim Pharma GmbH & Co. KG
Birkendorfer Straße 65
88397 Biberach an der Riss
Federal Republic of Germany
Attention: **[*]**
Fax: **[*]**
Phone: **[*]**

If to FibroGen:
FibroGen, Inc.
225 Gateway Boulevard
South San Francisco, CA 94080

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

U.S.A.
Attention: Thomas B. Neff
Chief Executive Officer
Phone: **[*]**
Fax: **[*]**

With a copy to:

Legal Department
Attn: General Counsel
Phone: **[*]**
Fax: **[*]**

12.5 Applicable Law and Jurisdiction

This Definitive Agreement shall be exclusively governed by and construed in accordance with the laws of Switzerland, except of its conflict of laws provisions. Exclusive place of jurisdiction and venue shall be the competent court in Geneva, Switzerland.

12.6 Waiver

No waiver of any term, provision or condition of this Definitive Agreement whether by conduct or otherwise in any one or more instances shall be deemed to be or construed as a further or continuing waiver of any such term, provision or condition or of any other term, provision or condition of this Definitive Agreement.

12.7 Severability

If any provision of this Definitive Agreement is held to be invalid or unenforceable by a court of competent jurisdiction all other provisions shall continue in full force and effect. The Parties hereby agree to attempt to substitute for any invalid or unenforceable provision a valid and enforceable provision which achieves to the greatest extent possible the economic legal and commercial objectives of the invalid or unenforceable provision.

12.8 Dispute Resolution

Any dispute relating to the validity, performance, construction or interpretation of this Definitive Agreement shall first be submitted for resolution to the Steering Committee.

12.9 Assignment

This Definitive Agreement shall be binding upon the successors and assigns of the Parties and the name of a Party appearing herein shall be deemed to include the names of its successors and assigns provided always that nothing herein shall permit any assignment by either Party. However, BI Pharma may assign this Definitive Agreement to a member of the Boehringer Ingelheim group of companies, which control, are controlled by or are under common control with BI Pharma, and FibroGen may assign this Definitive Agreement to its affiliates or in connection with the sale of all or substantially all of the assets and/or stock of the business related to the Product, provided, that the Parties agree that the activities under this Definitive Agreement shall be performed at the Biberach Facility. Such control shall exist through direct or indirect ownership of 50% or more of the nominal value of the issue equity share capital or of 50% or more of the shares entitling the holders to vote for the election of directors or persons performing similar functions.

12.10 Impact of Definitive Agreement on Authorization to Proceed

This Definitive Agreement shall supersede and replace the Authorization to Proceed in its entirety, and all activities conducted under the ATP, and all rights accruing to the Parties in connection therewith, shall be governed by the terms and condition of this Definitive Agreement, and, except as provided for herein in Sections 2.6 (fourth subsection) and 7.2b, shall be retroactively deemed to have been conducted or arisen hereunder.

IN WITNESS WHEREOF, the Parties have caused this Definitive Agreement to be executed as of the Effective Date.

South San Francisco, November 29, 2007	Biberach, 3 December 2007
FibroGen, Inc.	**Boehringer IngeIheim Pharma GmbH & Co. KG**
	ppa.
/s/ Thomas B. Neff	**[*]** **[*]**
Thomas B. Neff	**[*]** **[*]**
CEO	SVP Biopharmaceuticals VP Legal Dept.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

List of Appendices:

Appendix 1:	FibroGen Materials
Appendix 2:	Project Plan including Project Timeline and Payment Schedule
Appendix 3:	Members of the Project Team & Steering Committee, Chief Executives
Appendix 4:	Conditions for the use of BI Pharma Confidential Information and Know-How
Appendix 5:	General Policy regarding BI Pharma Confidential Information and Know-How
Appendix 6:	Quality Assurance Agreement
Appendix 7:	not applicable
Appendix 8:	Authorization to Proceed and Letter Agreements (see Section 1.2 of the Definitive Agreement)
Appendix 9:	Specifications, incl. shipping and packing instructions agreed by the Parties (to be attached upon agreement of the Parties)
Appendix 10:	Other Improvements
Appendix 11:	Description of the “BI Pharma Contribution”
Appendix 12:	Description of the “FibroGen Contribution”
Appendix 13:	Bill and Hold Provisions

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 1

FibroGen Materials

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 2:

Project Plan including Project Timeline and Payment Schedule

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 3:

Members of the Project Team & Steering Committee, Chief Executives

Members of Project Team:

Project Team					
BI-Team Member	**Contact Information**	**Function**	**FG-Team Member**	**Contact Information**	**Function**
[*]		[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]			
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]			
[*]	[*]	[*]			
[*]	[*]	[*]	[*]	[*]	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Project Team

BI-Team Member	Contact Information	Function	FG-Team Member	Contact Information	Function
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]			
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
			[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
			[*]	[*]	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Members of Steering Committee:

FibroGen Member	Function	BI Pharma Member	Function
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Chief Executives:

Thomas B. Neff
CEO
FibroGen, Inc.

[*]
SVP Biopharmaceuticals
Boehringer Ingelheim Pharma GmbH & Co. KG

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 4:

Conditions for the use of BI Pharma Confidential Information and Know-How

License: Subject to the royalty provisions set forth below, which are subject to Section 5.3 of the Definitive Agreement, BI Pharma hereby grants and agrees to grant to FibroGen a **[*]**, fully sublicensable exclusive license under (i) BI Pharma Technology and (ii) BI Pharma Improvements, in each case (i) and (ii) to make, have made, use, import, sell, offer for sale and have sold Product, as set forth in Section 5.3 of the Definitive Agreement and only to the extent relating to the Product **[*]** under this Definitive Agreement. Any possible licenses that might be granted by BI Pharma to FibroGen relating to **[*]** or any **[*]** shall always be subject to separate discussion and agreement between the Parties, if any.

Milestone and Royalties:

(a) FibroGen will pay BI Pharma:

(i) **[*]** upon **[*]**; and

(ii) Any **[*]** supply agreement for the Product between BI Pharma and FibroGen will provide that FibroGen will pay royalties on net commercial sales of Products manufactured by or on behalf of FibroGen by a manufacturer other than BI Pharma using the BI Pharma Contribution and/or BI Pharma Process when FibroGen has not purchased **[*]** in a calendar year from BI Pharma. The royalty will be calculated on the resulting net sales of commercial Product representing **[*]** the **[*]** at royalty rates based on fermentation titer (which for the purpose of this Appendix 4 shall mean the yield of Product obtained from a particular manufacturing run **[*]**, expressed in grams of Product per liter of media used in such manufacturing run) as follows:

fermentation titer (g/L)	royalty (% of net sales)
[*]	**[*]**

If BI Pharma does not agree to manufacture and supply Product for **[*]**, or if BI Pharma so agrees, but then fails to fulfill its obligation to do so for any reason, then no royalties or milestone payment shall be payable to BI Pharma under the license.

In case that the Parties did not agree to terms and conditions of a definitive exclusive **[*]** supply agreement by **[*]**, the Parties agree that the royalties of the license granted to FibroGen according to this Appendix 4, shall be **[*]** on the **[*]**.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 5:

General Policy regarding BI Pharma Confidential Information and Know-How

BI Pharma represents a bench mark in Biopharmaceuticals and has to keep certain trade secrets to maintain its leading position in this technology

- As a consequence the following policy has been issued:
  - No Photos, Mobile Phones or other devices to make images in BI Pharma's facility
  - No paper and writing during visits in the manufacturing facilities
  - No recording devices
  - No technical information about BI Pharma equipment or processing beyond the actual customer process to cover GMP-requirements
  - No copies of batch record but acceptance for onsite batch record review to cover GMP requirements
  - BI Pharma to provide agreed upon development and manufacturing progress reports and copies of transparencies shown during meetings
  - BI Pharma is willing to discuss Tech Transfer Terms during contractual negotiations

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 6:

Quality Assurance Agreement

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 7: Not applicable

Appendix 8:

Authorization to Proceed and Letter Agreements (see Section 1.2 of the Definitive Agreement)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

July 12th, 2006

Boehringer Ingelheim Pharma GmbH & Co. KG
Attn. **[*]**
Birkendorfer Strasse 65
D-88397 Biberach an der Riss

RE: AUTHORIZATION TO PROCEED

Dear Sirs:

This letter (the "Authorization to Proceed") constitutes formal notification that FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080 ("FibroGen") intends to retain Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Strasse 65, 88397 Biberach a.d. Riss ("BI Pharma") to perform certain services ("Services") with respect to the human monoclonal antibody directed at Connective Tissue Growth Factor (CTGF) identified by FibroGen as FG-3019 ("Product") as described in the proposed master plan dated June 30, 2006 attached hereto as Appendix A (the "Proposal").

1. Authorization.

FibroGen and BI Pharma are negotiating in parallel a definitive agreement for BI Pharma's provision of Services to FibroGen ("Definitive Agreement"). FibroGen and BI Pharma recognize that this Authorization to Proceed is necessary to expedite the Services due to the desired time frame for the project. Accordingly, .pending completion of such negotiations and the execution of a Definitive Agreement with respect to the Services, FibroGen hereby authorizes BI Pharma, under the terms and conditions set forth in this Authorization to Proceed, to commence performance of certain activities under the Services (the "Activities"), i.e. the Services described under the headings **[*]** and **[*]**, all as more fully described in the Proposal. No Product will be produced under this Authorization to Proceed for human clinical studies or use.

FibroGen shall provide the Materials, and all know-how and other information and documents necessary for BI Pharma to perform the Activities at the latest on **[*]**. In the case that FibroGen has failed to provide such deliverables, BI Pharma is entitled to terminate this Authorization to Proceed.

2. Definitive Agreement.

FibroGen and BI Pharma will continue negotiations in good faith to execute a signed Definitive Agreement covering the anticipated terms and scope of the Services. The Definitive Agreement shall also include certain additional terms set forth in Appendix B to this Authorization to Proceed. It is anticipated that both parties will sign such an agreement on or before **[*]**. If the parties fail to do so, a new or revised Authorization to Proceed signed by authorized representatives of the parties defining the revised terms and activities will be necessary for BI Pharma to continue. The execution of the Definitive Agreement is subject to the approval of FibroGen's and BI Pharma's Board of Directors. This Authorization to Proceed is binding on the parties hereto, but does not obligate the parties to enter into the Definitive Agreement.

3. FibroGen Materials.

(a) Subject to the terms of this Authorization to Proceed, FibroGen shall transfer such Materials (defined below) to BI Pharma as FibroGen deems reasonably required for the performance of the Activities by BI Pharma. "Materials" shall mean all (a) cDNA encoding Product, cell lines, cell banks, and master cell banks (collectively, "FibroGen Cell Lines") and (b) constructs, reagents, antibodies and/or other tangible materials, in each case provided by FibroGen to BI Pharma connection with the Activities.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(b) BI Pharma shall use the Materials solely to conduct the Activities in accordance with the Proposal or as otherwise agreed by the parties in writing. The Materials may not be provided to any other individual, entity or institution, including institutions and entities affiliated or under contract with BI Pharma without the prior written consent of FibroGen, which may be withheld by FibroGen for any reasonable business reason. The Materials will not be used in - connection with any diagnosis, treatment or any other activity in humans or for any use not directly related to the Activities. BI Pharma's use of the Materials will be in compliance with all applicable federal, state and local laws and regulations. BI Pharma accepts the Materials with the knowledge that they are experimental.

(c) The Materials are the property-of FibroGen and FibroGen shall retain all right, title and interest in the Materials. It is agreed that the transfer of the Materials hereunder shall be a bailment and shall not constitute a sale of the Materials or a grant, option or license of any patent or other rights except to allow BI Pharma to perform the Activities. BI Pharma shall at all times take such measures as are required to protect the Materials from loss or damage and shall promptly notify FibroGen if at any time it believes any Materials have been damaged, lost or stolen. BI Pharma will ensure that the Materials remain free and clear of any liens or encumbrances.

(d) THE MATERIALS ARE UNTESTED AND HAVE BEEN GIVEN TO BI PHARMA GRATUITOUSLY. ACCORDINGLY, THE MATERIAL IS PROVIDED "AS IS" WITH NO WARRANTIES EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. FIBROGEN MAKES NO REPRESENTATION AND PROVIDES NO WARRANTY THAT THE USE OF THE MATERIALS WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

4. Confidential Information.

(a) The parties agree that the terms of the confidentiality agreement dated August 16, 2004 between BI Pharma and FibroGen, as amended on May 18, 2006 (the "CDA"), shall remain in full force and effect and shall apply to information and materials (i) disclosed and/or provided by FibroGen to BI Pharma in connection with the Activities, and (ii) generated by BI Pharma in the performance of the Activities, which in each case (notwithstanding anything to the contrary contained in such CDA) shall be deemed FibroGen's Information (as defined in the CDA). The transfer of information hereunder shall not constitute any grant, option, or license under any patent or other rights of either party. BI Pharma shall use such FibroGen Information for the sole purpose of performing the Activities under the terms of this Authorization to Proceed or for such other purposes as may be approved by FibroGen in writing. This Authorization to Proceed and its appendices constitute "Information" of both parties under the CDA. The confidentiality obligation of the CDA shall apply to any Information received under this Authorization to Proceed until **[*]** after the effective date of this Authorization to Proceed.

(b) Each party (the "disclosing party") may disclose the Information of the other party (the "receiving party") to persons within the receiving party's organization who have a need to receive such Information to perform the Activities and who are bound to protect the confidentiality of the disclosing party's Information, as set forth in the immediately following paragraph. Furthermore, if required, the receiving party may disclose (i) the disclosing party's Information to a governmental authority or by order of a court of competent jurisdiction, provided that such disclosure is subject to all applicable governmental or judicial protection available for like information and reasonable advance notice is given to the disclosing party and (ii) Improvements to the extent required to exploit its rights under Section 5 of this Agreement. Moreover, upon BI Pharma's prior written approval, FibroGen may disclose BI Pharma Information relating to the Activities to entities with whom FibroGen has (or may have) a marketing and/or development collaboration and who have a specific need to know such Information and who are bound by a like obligation of confidentiality and restrictions on use.

(c) Each party has or will obtain agreements with all employees (as already provided for in the respective employee contracts), consultants and advisors and affiliates who are permitted access to the other party's confidential information under this Authorization to Proceed which impose comparable confidentiality and non-use obligations on such persons.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

5. Intellectual Property Rights.

None of the intellectual property rights generated in the performance of the Activities under this Authorization to Proceed will be used outside the scope of the Authorization to Proceed without having the Definitive Agreement and/or separate terms in place.

Furthermore, BI Pharma cannot use FibroGen Information, as defined in the CDA, or FibroGen Technology generated under this Authorization to Proceed in or in the support of any patent applications without the written consent of FibroGen. FibroGen cannot use BI Pharma Information, as defined in the CDA, or FibroGen Technology generated under this Authorization to Proceed in or in the support of any patent applications without the written consent of BI Pharma.

For the purpose of the Activities performed under this Authorization to Proceed the following definitions, whether used in the singular or plural, shall have the meaning as listed below:

"Technology" means all cDNA, cell lines, cell banks, master cell banks, constructs, reagents, antibodies and/or other tangible materials, methods, techniques, processes, trade secrets, copyrights, know-how, data, documentation, regulatory submissions, specifications and other intellectual property of any kind (whether or not protectible under patent, trademark, copyright or similar laws).

"BI Pharma Technology" means the Technology developed or obtained by or on behalf of BI Pharma (i) prior to May 18, 2006 (the "Effective Date"), or (ii) independent of this Agreement and without the use of the of FibroGen Information (as defined in the CDA), including without limitation, the BI Pharma proprietary technology known as **[*]** as well as the BI Pharma Process, as defined in Appendix B.

"FibroGen Technology" means (i) the Materials, (ii) Product, and (iii) the Technology of FibroGen developed or obtained by or on behalf of FibroGen (x) prior to May 18,2006 (the Effective Date), or (y) independent of this Agreement and without the use of BI Pharma Information as defined in the CDA.

"Improvements" means all Technology, discoveries and inventions, and all modifications, derivatives and improvements thereto or new uses thereof (whether or not protectible under patent, trademark, copyright or similar laws) that are discovered, developed or reduced to practice in the performance of the Activities.

The parties agree that (i) all Improvements that relate solely to FibroGen Technology or FibroGen Information, as defined in the CDA, (collectively, "FibroGen Improvements"), and (ii) all reports generated as a result of the performance of the Activities will in each case be the sole and exclusive property of FibroGen, and such FibroGen Improvements are hereby assigned to FibroGen (or its designee) without additional compensation to BI Pharma. BI Pharma will take such steps as FibroGen may reasonably request (at FibroGen's expense) to vest in FibroGen (or its designee) ownership of the FibroGen Improvements. The parties agree that all Improvements (i) that relate solely to BI Pharma Technology or BI Pharma Information (collectively, "BI Pharma Improvements") will be the sole and exclusive property of BI Pharma and such BI Pharma Improvements are hereby assigned to BI Pharma (or its designee) without additional compensation to FibroGen. FibroGen will take such steps as BI Pharma may reasonably request (at BI Pharma's expense) to vest in BI Pharma (or its designee) ownership of the BI Pharma Improvements.

Any Improvement that are not FibroGen Improvements or BI Pharma Improvements ("Other Improvements") will not be used outside this Authorization to Proceed without the parties mutual written agreement For the avoidance of doubt, know-how and intellectual property **[*]** under this Authorization to Proceed, and that is **[*]** shall be exempted from such non-use obligation, and **[*]**.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

6. Licenses.

FibroGen hereby grants to BI Pharma and BI Pharma hereby accepts for the purpose of this Authorization to Proceed a non-exclusive, non-sublicensable (except to BI Pharma corporate affiliates), royalty-free license to use FibroGen Technology solely to perform the Activities in accordance with this Agreement.

7. Indemnification.

(a) BI Pharma shall indemnify, defend and hold FibroGen, its affiliates and their respective officers, directors, employees and agents harmless from and against all third party claims, losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, resulting from or arising out of (i) performance of the Activities, except to the extent resulting from or arising out of the breach of this Authorization to Proceed by, or the negligence or willful misconduct of, FibroGen, and except for any third party infringement claims arising solely out of the use of FibroGen Technology in the performance of the Activities, (ii) any breach of this Authorization to Proceed by BI Pharma, (iii) the use of BI Pharma Technology in the performance of the Activities, or (iv) the use of Improvements by BI Pharma for any purpose. As a condition of this indemnification obligation, FibroGen must promptly notify BI Pharma of a covered claim, must tender to BI Pharma (and/or its insurer) full authority to defend or settle the claim, and must reasonably cooperate with the defending party.

(b) FibroGen shall indemnify, defend and hold BI Pharma, its affiliates and their respective officers, directors, employees and agents harmless from and against all third party claims, losses, damages, costs and expenses including, without limitation, reasonable attorneys' fees, resulting from or arising out of (i) any breach of this Authorization to Proceed by FibroGen, or (ii) the use of Improvements by FibroGen for any purpose. As a condition of this indemnification obligation, BI Pharma must promptly notify FibroGen of a covered claim, must tender to FibroGen (and/or its insurer) full authority to defend or settle the claim, and must reasonably cooperate with the defense.

8. Remedy; Limitation of Liability.

In the event of a breach or default by BI Pharma under this Authorization to Proceed, BI Pharma agrees, at FibroGen's option, to either repeat the Activities at issue or refund the portion of the consideration attributable thereto. UNDER NO CIRCUMSTANCES SHALL EITHER PARTY BE ENTITLED TO INCIDENTAL, INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING IN CONNECTION WITH ANY DEFAULT OR BREACH OF SAID PARTY'S OBLIGATIONS UNDER THIS AUTHORJZATION TO PROCEED, OR ANY ATTACHMENTS HERETO; PROVIDED, HOWEVER, THAT BI PHARMA'S LIABILITY UNDER THIS AUTHORIZATION TO PROCEED IS LIMITED TO **[*]**, PROVIDED, FURTHER, THAT NOTWITHSTANDING THE FOREGOING, THE LIMITATIONS SET FORTH IN THIS PARAGRAPH WILL NOT APPLY TO DAMAGES RESULTING FROM BREACHES BY A PARTY OF ITS DUTY OF CONFIDENTIALITY AND NON-USE IMPOSED UNDER SECTION 4.

9. Termination.

(a) FibroGen may terminate this Authorization to Proceed upon **[*]** prior written notice to BI Pharma if FibroGen decides to discontinue the development of the Product or due to major technical or business issues. FibroGen will pay any monies due and owing BI Pharma, up to the effective date of termination, for Activities actually performed and all authorized expenses actually incurred (as specified in the Proposal), and BI Pharma will immediately return and deliver to FibroGen all FibroGen Technology, FibroGen Information (as defined in the CDA), the Materials and tangible

modifications and derivatives of the Materials. Based on the cost of Services set forth in Appendix A, if BI Pharma has received payment from FibroGen in excess of the amount of Activities it has completed at the time of termination by FibroGen, BI Pharma will then refund to FibroGen all such overpayment of funds. Sections 3(b), (c) and (d), 4, 5, 7, 8, 9(a) and 10 will survive the expiration or earlier termination of this Authorization to Proceed.

(b) FibroGen acknowledges that BI Pharma has **[*]** for manufacturing of clinical grade material for FibroGen **[*]** in the **[*]** under the assumption of a successful development of the process by BI Pharma. Therefore, (a) if process development by BI Pharma proceeds as planned and (b) milestones are achieved to meet the clinical trial supplies of FibroGen, and FibroGen and BI Pharma enter into the Definitive Agreement for clinical supply, **[*]**. However, this shall not apply if **[*]** to **[*]** for **[*]**.

10. Miscellaneous.

(a) If there is a conflict between this Authorization to Proceed and ..any appendix hereto, this Authorization to Proceed will control.

(b) This Authorization to Proceed shall be governed by and construed in accordance with the laws of Switzerland. Any disputes arising out of or in connection with this Authorization to Proceed shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by arbitrators appointed in accordance to such Rules. Any Arbitration proceedings will be carried out in Geneva, Switzerland and in the English language.

(c) For convenience, this Authorization to “Proceed may be signed in more than one counterpart and signature pages may be exchanged by facsimile.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

If this Authorization to Proceed represents our mutual understanding, please sign and return the enclosed copy, keeping the original for your files.

Very truly yours,

FibroGen, Inc.

By: /s/ Tom Neff
Name: Tom Neff
Title: CEO

Agreed to this 12th day of July, 2006:

Boehringer Ingelheim Pharma GmbH & Co.KG

By: **[*]**
Name: **[*]**
Title: SVP Biopharmaceuticals

By: **[*]**
Name: **[*]**
Title: VP Legal Dept.

List of Appendices:

Appendix A: Master Plan

Appendix B: Development and Clinical Manufacturing Agreement, Additional Terms

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix A

Master Plan

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix B

Development and Clinical Manufacturing Agreement
Additional Terms

Overview: FibroGen has developed, and is further developing, the Product **[*]**. FibroGen desires BI Pharma to develop and optimize a cell line using BI Pharma Technology, and to evaluate **[*]**. FibroGen, in its sole discretion, will select **[*]** for BI Pharma to produce, using the a manufacturing process to be developed by BI Pharma ("BI Pharma Process"), quantities of Product for evaluation by FibroGen in clinical studies.

Clinical Supply: The Definitive Agreement will contain provisions regarding transfer pricing, forecasting, ordering, shipment, delivery, quality, Product testing, acceptance and rejection, tech transfer, representations and warranties, indemnification and other terms typically included in an agreement for the supply of material for **[*]**. Following the commencement of this Authorization to Proceed, Parties will negotiate and execute all quality terms necessary for the manufacture and supply of the Product for the use in clinical trials.

License to Other Improvements: Upon execution of the Definitive Agreement, BI Pharma will grant to FibroGen a non-exclusive, **[*]**, sublicensable license to any Other Improvements developed under the Authorization to Proceed for FibroGen's use in the manufacture of its Product.

License: Under the conditions as laid down below, BI Pharma will grant FibroGen a **[*]**, fully sublicensable license exclusive to the Product under and to BI Pharma Technology, BI Pharma Improvements and Other Improvements, to make, have made, use, import, market, sell and have sold Product (the "License"). The License is royalty bearing as set forth below.

Milestone and Royalties: (a) FibroGen wilt pay BI Pharma: (i) **[*]** upon **[*]**; and (ii) subject to the provisions of the section entitled "**[*]** Supply" below, FibroGen will pay royalties on net sales of Products manufactured by or on behalf of FibroGen **[*]** (defined below) of **[*]** in a calendar year from BI Pharma. The royalty will be calculated on the resulting net sales of Product representing **[*]** the **[*]** (defined below) at royalty rates based on manufacturing titer (definition to be negotiated in good faith by the parties and included in the Definitive Agreement) as follows:

Titer (g/L)	Royalty (% of Net Sales)
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

(b) If the Product is manufactured by or on behalf of FibroGen using the BI Pharma Process **[*]**, then FibroGen will pay BI Pharma **[*]** of the milestones and royalties described in paragraph (a) above. FibroGen may offset against these royalties **[*]** of payments to third parties under intellectual property licenses that are necessary or desirable to facilitate the development and manufacture of the Product.

If BI Pharma does not agree to manufacture and supply Product **[*]**, or if BI Pharma so agrees, but then fails to fulfill its obligation to do so for any reason, then no royalties or milestone payment shall be payable to BI Pharma under the License.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] Supply: FibroGen will grant BI Pharma a first option to manufacture and supply on an exclusive basis, using the BI Pharma Process **[*]** to be agreed by the parties upon **[*]** and **[*]** at **[*]**. The exclusive supply will be based on **[*]** for a period of **[*]** from **[*]**. In addition, BI Pharma will be entitled to supply **[*]** of FibroGen's Product requirement in a calendar year during the exclusive supply period. B1 Pharma may supply up to **[*]** in any calendar year. If however, FibroGen does not require **[*]** in a particular calendar or contractual year, as further defined in the **[*]** supply agreement, FibroGen will **[*]** and will have satisfied **[*]** obligation to BI Pharma.

It is hereby understood by the parties that BI Pharma's first option to manufacture and supply the Product on an exclusive basis is subject to **[*]** and **[*]** and **[*]** which are **[*]**. The parties also agree that if during the exclusive supply period BI Pharma fails to satisfactorily meet **[*]** for any reason, FibroGen in its sole discretion will be free and BI Pharma will assist FibroGen to source Product from another supplier and no royalties will apply. Following the execution of BI Pharma option, and upon successful proof of concept for the Product the parties will negotiate the definitive **[*]** supply agreement.

Transfer of Product Manufacturing Process: BI Pharma agrees to assist in the transfer of the manufacturing process for the Product subject to the provisions to be negotiated in the Definitive Agreement and or definitive **[*]** supply agreement described above.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

AMENDMENT TO AUTHORIZATION TO PROCEED

This Amendment No.1 to the Authorization to Proceed dated July 12, 2006 (the "Agreement"), by and between Boehringer Ingelheim Pharma GmbH & Co. KG, and FibroGen, Inc. and its subsidiaries (collectively, the "Parties") shall be effective September 14, 2006. The Parties, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, agree as follows:

(1) Section 2 of the Agreement is hereby amended in its entirety to read as follows:

FibroGen and BI Pharma will continue negotiations in good faith to execute a signed Definitive Agreement covering the anticipated terms and scope -of the Services. The Definitive Agreement shall also include certain additional terms set forth in **Appendix B** to this Authorization to Proceed. It is anticipated that both parties will sign such an agreement on or before **[*]**. If the parties fail to do so, a prolongation of Authorization to Proceed signed by authorized representatives of the parties will be necessary for BI Pharma to continue. The execution of the Definitive Agreement is subject to the approval of FibroGen's and BI Pharma's Board of Directors. This Authorization to Proceed is binding on the parties hereto, but does not obligate the parties to enter into the Definitive Agreement; and

(2) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date first set forth above.

FIBROGEN, INC.
By: /s/ Thomas B. Neff
Name: Thomas B. Neff
Title: Chief Executive Officer
Date: 28 September 2006

Boehringer Ingelheim Pharma GmbH & Co. KG

By: **[*]**	By: **[*]**
Name: **[*]**	Name: **[*]**
Title: SVP Biopharmaceuticals	Title:
Date: 27.10.06	Date: 25.10.06

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

AMENDMENT NO. 2 TO AUTHORIZATION TO PROCEED

This Amendment No. 2 to the Authorization to Proceed dated July 12, 2006, as amended on September 14, 2006 (the Agreement"), by and between Boehringer Ingelheim Pharma GmbH & Co. KG, and FibroGen, Inc. and its subsidiaries (collectively, the "Parties") shall be effective November 14, 2006. The Parties, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, agree as follows:

(1) Section 2 of the Agreement is hereby amended in its entirety to read as follows:

FibroGen and BI Pharma will continue negotiations in good faith to execute a signed Definitive Agreement covering the anticipated terms and scope of the Services. The Definitive Agreement shall also include certain additional .terms set forth in **Appendix B** to this Authorization to Proceed. It is anticipated that both parties will sign such an agreement on or before **[*]**. If the parties fail to do so, a new or revised Authorization to Proceed signed by authorized representatives of the parties defining the revised terms and activities will be necessary for BI Pharma to continue. The execution of the Definitive Agreement is subject to the approval of FibroGen's and BI Pharma's Board of Directors. This Authorization to Proceed is binding on the parties hereto, but does not obligate the parties to enter into the Definitive Agreement; and

(2) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 2 as of the date first set forth above.

FIBROGEN, INC.
By: /s/ Thomas B. Neff
Name: Thomas B. Neff
Title: CEO
Date: 14 Nov. 2006

Boehringer Ingelheim Pharma GmbH & Co. KG

By: **[*]**	By: **[*]**
Name: **[*]**	Name: **[*]**
Title: SVP Biopharmaceuticals	Title: Corporate Lawyer
Date: 28.11.06	Date:

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

AMENDMENT NO. 3 TO AUTHORIZATION TO PROCEED

This Amendment No. 3 to the Authorization to Proceed dated July 12, 2006, as amended on September 14, 2006 and November 14, 2006 (the "Agreement"), by and between Boehringer Ingelheim Pharma GmbH & Co.KG, and FibroGen, Inc. and its subsidiaries (collectively, the "Parties") shall be effective February 14, 2007. The Parties, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, agree as follows:

(1) Section 2 of e Agreement is hereby amended in its entirety to read as follows:

FibroGen and BI Pharma will continue negotiations in good faith to execute a signed Definitive Agreement covering the anticipated terms and scope of the Services. The Definitive Agreement shall also include certain additional terms set forth in **Appendix B** to this Authorization to Proceed. It is anticipated that both parties will sign such a Definitive Agreement on or before **[*]**. If the parties fail to do so, a new or revised Authorization to Proceed signed by authorized representatives of the parties defining the revised terms and activities will be necessary for BI Pharma to continue. The execution of the Definitive Agreement is subject to the approval of FibroGen's and BI Pharma's Board of Directors. This Authorization to Proceed is binding on the parties hereto, but does not obligate the parties to enter into the Definitive Agreement;

(2) The services initially described in the proposed master plan dated June 30, 2006 attached to the Authorization to Proceed as **Appendix A** (the "Proposal") and are now described in the proposed master plan dated **[*]** as **Appendix A** hereto, which shall replace the original Proposal.; and

[The reminder of this page was intentionally left blank]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

(3) Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 3 as of the date first set forth above.

FIBROGEN, INC.
By: /s/ Thomas B. Neff
Name: Thomas B. Neff
Title: CEO
Date: 13 Feb. 2007

Boehringer Ingelheim Pharma GmbH & Co. KG

By: **[*]**
Name: **[*]**
Title: VPBP Quality & Compliance
Date: Feb. 15, 2007

By: **[*]**
Name: **[*]**
Title: Corporate Lawyer
Date: Feb. 15, 2007

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix A

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

FibroGen, Inc.
225 Gateway Boulevard,
South San Francisco, California 94080
USA

25 May 2007

Expiration of Amendment No. 3 to Authorization to Proceed; Our intended discussions with regard to a new Authorization to Proceed before [*].

Dear Virginia.

This Letter Agreement by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Straße 65,88397 Biberach an der Riss ("BI Pharma") and FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, USA ("FibroGen") shall confirm the mutual understanding of BI Pharma and FibroGen (each individually called a "Party" and both collectively called the "Parties"), that

1. as the Definitive Agreement and the Quality Agreement between both Parties are still in a negotiation process, and
2. the Authorization to Proceed dated July 12, 2006 as amended on September 14, 2006 and November 14, 2006 and February 14, 2006 (the "ATP") will expire on **[*]**, and
3. with regard to the ongoing negotiations between the Parties for a new Authorization to Proceed, which is deemed to be signed on or before **[*]**, and:
4. to avoid any situation not covered by an agreement between the Parties,

the Parties mutually acknowledge and agree that the ATP shall be valid and therefore be extended until **[*]**, and therefore shall be read to be binding for both Parties until **[*]**.

The Parties further agree that, except as otherwise provided in this Letter Agreement, the ATP has not been modified or amended and remains in full force and effect.

If this Letter Agreement also reflects your understanding, we would kindly ask you to sign this Letter Agreement and to send one copy back to us for our files. The other copy is for your files.

Best regards

Boehringer Ingelheim Pharma GmbH & Co. KG.

[*]
[*]
VP Process Science

[*]
[*]
Biotech Business Development

Accepted and agreed!
South San Francisco,
FibroGen, Inc.

/s/ Tom Neff
Tom Neff
CEO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

FibroGen, Inc.
225 Gateway Boulevard
South San Francisco
California 94080
USA

15 June 2007

Expiration of the Letter Agreement to Amendment No. 3 to Authorization to Proceed; Our intended discussions with regard to a new Authorization to Proceed before [*].

Dear Virginia.

This Additional Letter Agreement by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Straße 65,88397 Biberach an der Riss ("BI Pharma") and FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, USA ("FibroGen") shall confirm the mutual understanding of BI Pharma and FibroGen (each individually called a "Party" and both collectively called the "Parties"), that

1. as the Definitive Agreement and the Quality Agreement between both Parties are still in a negotiation process, and
2. the Authorization to Proceed dated July 12, 2006 as amended on September 14, 2006 and November 14, 2006 and February l4, 2006 and May 25, 2007 (the "ATP") will expire on **[*]**, and
3. with regard to the ongoing negotiations between the Parties for a new Authorization to Proceed, which is deemed to be signed on or before **[*]**, and
4. to avoid any situation not covered by an agreement between the Parties,

the Parties mutually acknowledge and agree that the ATP shall be valid and therefore be extended until **[*]**, and therefore shall be read to be binding for both Parties until **[*]**.

The Parties further agree that, except as otherwise provided in this Additional Letter Agreement, the ATP has not been modified or amended and remains in full force and effect.

If this Additional Letter Agreement also reflects your understanding, we would kindly ask you to sign this Additional Letter Agreement and to send one copy back to us for our files. The other copy is for your files.

Best regards

Boehringer Ingelheim Pharma GmbH & Co. KG

__[*]_____
[*]
VP Process Science

__[*]_____
[*]
Biotech Business Development

Accepted and agreed!
South San Francisco,

/s/ Tom Neff
Tom Neff
CEO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

FibroGen, Inc.
225 Gateway Boulevard
South San Francisco
California 94080
USA

June 29, 2007

Expiration of the Additional Letter Agreement to Amendment No. 3 to Authorization to Proceed; Our intended discussions with regard to a new Authorization to Proceed before [*].

Dear Virginia.

This Second Additional Letter Agreement by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Straße 65,88397 Biberach an der Riss ("BI Pharma") and FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, USA ("FibroGen") shall confirm the mutual understanding of BI Pharma and FibroGen (each individually called a "Party" and both collectively called the "Parties"), that

1. as the Definitive Agreement and the Quality Agreement between both Parties are still in a negotiation process, and
2. the Authorization to Proceed dated July 12, 2006 as amended on September 14,2006 and November 14,2006 and February 14,2006 and May 25, 2007 and June 15, 2007 (the "ATP") will expire on **[*]**, and
3. with regard to the ongoing negotiations between the Parties for a new Authorization to Proceed, which is deemed to be signed on or before **[*]**, and
4. to avoid any situation not covered by an agreement between the Parties,

the Parties mutually acknowledge and agree that the ATP shall be valid and therefore be extended until **[*]**, and therefore shall be read to be binding for both Parties until **[*]**.

The Parties further agree that, except as otherwise provided in this Additional Letter Agreement, the ATP has not been modified or amended and remains in full force and effect.

If this Second Additional Letter Agreement also reflects your understanding, we would kindly ask you to sign this Second Additional Letter Agreement and to send one copy back to us for our files. The other copy is for your files.

Best regards

Boehringer Ingelheim Pharma GmbH & Co. KG

__[*]_____
[*]
VP Process Science

__[*]_____
[*]
Biotech Business Development

Accepted and agreed!
South San Francisco,

/s/ Tom Neff
Tom Neff
CEO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

FibroGen, Inc.
225 Gateway Boulevard
South San Francisco
California 94080
USA

July 23, 2007

Expiration of the Additional Letter Agreement to Amendment No. 3 to Authorization to Proceed; Our intended discussions with regard to a new Authorization to Proceed before [*].

Dear Virginia.

This Third Additional Letter Agreement by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Straße 65,88397 Biberach an der Riss ("BI Pharma") and FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, USA ("FibroGen") shall confirm the mutual understanding of BI Pharma and FibroGen (each individually called a "Party" and both collectively called the "Parties"), that

1. as the Definitive Agreement and the Quality Agreement between both Parties are still in a negotiation process, and
2. the Authorization to Proceed dated July 12, 2006 as amended on September 14,2006 and November 14, 2006 and February 14, 2006 and May 25, 2007 and June 15, 2007 and June 29, 2007 (the "ATP") will expire on **[*]**, and
3. with regard to the ongoing negotiations between the Parties for a new Authorization to Proceed, which is deemed to be signed on or before **[*]**, and
4. to avoid any situation not covered by an agreement between the Parties,

the Parties mutually acknowledge and agree that the ATP shall be valid and therefore be extended until **[*]**, and therefore shall be read to be binding for both Parties until **[*]**.

The Parties further agree that, -except as otherwise provided in this Third Additional Letter Agreement, the ATP has not been modified or amended and remains in full force and effect.

If this Third Additional Letter Agreement also reflects your understanding, we would kindly ask you to sign this Third Additional Letter Agreement and to send one copy back to us for our files. The other copy is for your files.

Best regards

Boehringer Ingelheim Pharma GmbH & Co. KG

__[*]_____
[*]
VP Process Science

__[*]_____
[*]
Biotech Business Development

Accepted and agreed!
South San Francisco,

/s/ Tom Neff
Tom Neff
CEO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

FibroGen, Inc.
225 Gateway Boulevard
South San Francisco
California 94080
USA

August 29, 2007

Expiration of the Additional Letter Agreement to Amendment No. 3 to Authorization to Proceed; Our intended discussions with regard to a new Authorization to Proceed before [*].

Dear Virginia.

This Fourth Additional Letter Agreement by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Straße 65,88397 Biberach an der Riss ("BI Pharma") and FibroGen, Inc., 225 Gateway Boulevard, South San Francisco, California 94080, USA ("FibroGen") shall confirm the mutual understanding of BI Pharma and FibroGen (each individually called a "Party" and both collectively called the "Parties"), that

1. as the Definitive Agreement and the Quality Agreement between both Parties are still in a negotiation process, and
2. the Authorization to Proceed dated July 12, 2005 as amended on September 14, 2006 and November 14, 2006 and February 14, 2006 and May 25, 2007 and June 15, 2007 and June 29, 2007 and July 23 (the "ATP") will expire on **[*]**, and
3. with regard to the ongoing negotiations between the Parties for a new Authorization to Proceed, which is deemed to be signed on or before **[*]**, and
4. to avoid any situation not covered by an agreement between the Parties,

the Parties mutually acknowledge and agree that the ATP shall be valid and therefore be extended until **[*]**, and therefore shall be read to be binding for both Parties until **[*]**.

The Parties further agree that, except as otherwise provided in this Fourth Additional Letter Agreement, the ATP has not been modified or amended and remains in full force and effect.

If this Fourth Additional Letter Agreement also reflects your understanding, we would kindly ask you to sign this Fourth Additional Letter Agreement and to send one copy back to us for our files. The other copy is for your files.

Best regards

Boehringer Ingelheim Pharma GmbH & Co. KG

[*]
[*]
VP Process Science

[*]
[*]
Biotech Business Development

Accepted and agreed!
South San Francisco,

/s/ Tom Neff
Tom Neff
CEO

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 9:

Specifications, incl. shipping and packing instructions agreed by the Parties (to be attached upon agreement of the Parties)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 10:

Other Improvements

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 11:

Description of the "BI Pharma Contribution"

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 12:

Description of the "FibroGen Contribution"

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Appendix 13:

Bill and Hold Provisions

1. BI Pharma shall be entitled to invoice FibroGen for Product held on a bill and hold basis when such Product has been accepted by FibroGen.

2. BI Pharma shall store such Product under appropriate cGMP conditions as set forth in applicable written standard operating procedures pertaining to the storage of similar items by BI Pharma on its own behalf or, in the alternative, pursuant to written agreement of the Parties.

3. FibroGen shall arrange for insurance for the Product stored at BI Pharma. Provided that BI Pharma has complied with the requirements of cGMP and any applicable standard operating procedures, including any storage procedures agreed by the Parties, BI Pharma shall not be liable for deterioration in Product. BI Pharma be liable for deterioration of or other damage to the Product that result from its failure to comply with the requirements of cGMP and any applicable standard operating procedures, including any storage procedures agreed by the Parties.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(ii)

Boehringer Ingelheim
Pharma GmbH & Co. KG
Legal Department

Boehringer Ingelheim Pharma GmbH & Co. KG • 88397 Biberach an der Rise

26 June 2008

FibroGen Inc.
225 Gateway Boulevard
South San Francisco, CA 94080
U. S. A.

Re: Postponement of exercise date for "BI Pharma Option Part 1" granted under the Process Development and Clinical Supply Agreement effective as of November 29, 2007 (the "Definitive Agreement")

Dear Ladies and Gentlemen:

Under the Definitive Agreement FibroGen, Inc. ("FibroGen") granted to Boehringer Ingelheim Pharma GmbH & Co. KG ("BI", and together with FibroGen, the "Parties") a first option to manufacture and supply **[*]** Product (the "Option"), which must be exercised no later than **[*]**.

As described in the Definitive Agreement, the Parties have been engaged in negotiations for a **[*]** supply agreement (the "Supply Agreement") which, if BI exercises the Option, shall be finalized no later than **[*]**.

As the negotiations require further discussion between the Parties, the purpose of this letter agreement (this "Letter Agreement") is to set forth the mutual agreement of FibroGen and BI with respect to an extension of the date by which the BI Pharma Option Part 1 as described in the Definitive Agreement must be exercised. Accordingly, FibroGen and BI agree that the Definitive Agreement shall be amended as follows:

1. The second sentence of Section 6.1.1 of the Definitive Agreement shall be amended to read as follows:

"Such option must be exercised by BI Pharma no later than **[*]**, and such option will lapse if not exercised by BI Pharma by such date."

2. The second sentence of Section 6.2 shall be deleted.

Except as expressly set forth in this Letter Agreement, all other terms and conditions of the Definitive Agreement shall remain in full force and effect. This Letter Agreement may be executed in one or more counterparts, each of which shall constitute together the same document.

Please indicate your agreement with the matters set forth herein by executing this Letter Agreement in the space provided below.

Very truly yours,

Boehringer Ingelheim Pharma	**GmbH & Co. KG**
ppa.	i. V.
By: **[*]**	**[*]**
Name: **[*]**	**[*]**
Title: VP Supply Chain	Corporate Lawyer

Acknowledged and Agreed:

FibroGen, Inc.

By: /s/ Thomas B. Neff
Name: **Thomas B. Neff**
Title: **Chairman & CEO**

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(iii)

FibroGen Inc.
225 Gateway Boulevard
South San Francisco, CA 94080
U. S. A.

Boehringer Ingelheim
Pharma GmbH & Co. KG

Legal Department

18 August 2008

Re: Postponement of exercise date for "BI Pharma Option Part 1" granted under, and final execution date of the "[*] supply agreement" according to the Process Development and Clinical Supply Agreement effective as of November 29, 2007 and amended by the Letter Agreement (the "Letter Agreement") effective as of June 26, 2008 (together the "Definitive Agreement").

Dear Ladies and Gentlemen:

Under the Definitive Agreement FibroGen, Inc. ("FibroGen") granted to Boehringer Ingelheim Pharma GmbH & Co. KG ("BI", and together with FibroGen, the "Parties") a first option to manufacture and supply **[*]** Product (the "Option"), which must be exercised no later than **[*]**.

The Parties now agree, that the exercise of the Option and the negotiation of the **[*]** supply agreement (the "Supply Agreement") needs further postponement. As the Parties are engaged in negotiations for an Addendum No. 1 to the Definitive Agreement reflecting the changes discussed during the previous months, the purpose of this second letter agreement (this "Letter Agreement No. 2") is to set forth the mutual agreement of FibroGen and BI with respect to an extension of the date by which the Option as described in the Definitive Agreement must be exercised and the Supply Agreement shall be finally executed. Accordingly, FibroGen and BI agree that the Definitive Agreement shall be amended as follows:

1. The second sentence of Section 6.1.1 of the Definitive Agreement shall be amended to read as follows:

   "Such option must be exercised by BI Pharma no later than **[*]**, and such option will lapse if not exercised by BI Pharma by such date."

2. The second sentence (which has been the third sentence prior to deletion of the former second sentence by the Letter Agreement) of Section 6.2 shall be amended to read as follows:

"However, the final execution date of said **[*]** supply agreement shall not be later than **[*]**."

Except as expressly set forth in this Letter Agreement No. 2, all other terms and conditions of the Definitive Agreement shall remain in full force and effect. This Letter Agreement No. 2 may be executed in one or more counterparts, each of which shall constitute together the same document.

Please indicate your agreement with the matters set forth herein by executing this Letter Agreement No. 2 in the space provided below.

Very truly yours,

Boehringer Ingelheim Pharma GmbH & Co. KG

ppa. i. V.

By: **[*]** **[*]**
Name: **[*]** **[*]**
Title: **VP Supply Chain** **Corporate Lawyer**

Acknowledged and Agreed:

FibroGen, Inc.

By: /s/ William Hodder
Name: **William Hodder**
Title: **Vice President, Business Development**

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(iv)

Amendment No. 1

(hereinafter called the "Amendment")

to the

Process Development and Clinical Supply Agreement
effective as of 29 November 2007 and signed by the Parties
on November 29 and December 03, 2007

between

FibroGen Inc.
409 Illinois St
San Francisco, CA 94158
USA

(hereinafter called "FibroGen")

and

Boehringer Ingelheim Pharma GmbH & Co. KG
Birkendorfer Straße 65
88397 Biberach an der Riß
Germany
(hereinafter called "BI Pharma")

(each party individually called a "Party" and both parties collectively called the "Parties").

Preamble

The Parties entered into the Process Development and Clinical Supply Agreement, effective as of 29 November 2007 and signed by the Parties on November 29 and December 03, 2007, which has been modified by the Letter Agreements entered into on 26 June 2008 and 18 August 2008 (hereinafter together called the "Agreement").

Amendment 1 to the Process Development and Clinical Supply Agreement between FibroGen / BI Pharma

The Parties have agreed to update Appendix 2 of the Agreement due to their needs and hereby agree to modify the Agreement as follows:

1. The current Appendix 2 of the Agreement “Project Plan including Project Timeline and Payment Schedule” shall be replaced by the “Master plan: Anti — CTGF FibroGen Inc. / BI Pharma GmbH & Co. KG” (version of May 12, 2009), attached to this Amendment as Attachment 1. Any reference in the Agreement to the Appendix 2 shall be read to reference the new Appendix 2 as attached to this Amendment (including but not limited to the List of Appendices on page 29 of the Agreement).

2. This Amendment shall take effect as of the date of last signature below and as far as not amended herein, the Agreement shall remain in full force and effect.

Biberach, May 14, 2009		San Francisco, May 28, 2009
Boehringer Ingelheim Pharma GmbH & Co. KG		**FibroGen Inc.**
ppa.	ppa.	
[*]	**[*]**	/s/ James Polarek
[*]	**[*]**	James Polarek VP, Protein Therapeutics and Collagen Development

Attachment 1: Master plan: Anti- CTGF Fibrogen Inc./ BI Pharma GmbH & Co. KG (Version of May 12, 2009)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Attachment 1

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(v)

AMENDMENT NO. 3 TO PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 3 (the "Third Amendment") is effective retroactively as of November 5, 2010 (the "Third Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG,** Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.,** 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen") amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, and the Amendment No. 1, effeactive as of May 28, 2009 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties". The Supply Agreement and this Third Amendment are collectively, the "Agreement".

WHEREAS, FibroGen wishes to engage BI Pharma to conduct additional **[*]**, in compliance with the terms of the Supply Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Third Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) The Parties hereby agree that the **[*]** that shall be performed by BI Pharma shall be considered part of the Project and therefore, pursuant to Section 2.2 of the Agreement, the Exhibit "Work Scope and Cost Estimate for **[*]**", attached to this Third Amendment shall be added as an amendment to the existing Appendix 2 of the Agreement, and pursuant thereto BI Pharma shall conduct a **[*]** on behalf of FibroGen, and in accordance with the Supply Agreement.

(3) This Third Amendment, together with the Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Third Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Third Amendment.

(4) This Third Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Third Amendment to the Agreement as of Third Amendment Effective Date.

FIBROGEN, INC.

By: /s/ Jim Polarek
Name: Jim Polarek
Title: VP, Protein Therapeutics and Collagen Development
Date: December 13, 2010

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG
ppa.

By: **[*]**
Name: **[*]**
Title: Head of ICB, SCM

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG
i. V.

By: **[*]**
Name: **[*]**
Title: Lawyer
Date: November 22, 2010

Exhibit: Work Scope and Cost Estimate for **[*]** (Version 3, 2010)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(vi)

AMENDMENT NO. 4 TO PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 4 (the "Fourth Amendment") is effective as of January 24, 2011 (the "Fourth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG** ("BI Pharma") and **FibroGen, Inc.** ("FibroGen") amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of on June 26, 2008 and August 18, 2008, the First Amendment on May 14, 2009 and the Third Amendment on November 5, 2010 (the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties".

WHEREAS, as contemplated under Section 2.4 of the Supply Agreement, BI Pharma has conducted on behalf of FibroGen **[*]** using the Product **[*]**, and the Process and the Product **[*]** have not been materially changed;

WHEREAS, the Parties have agreed upon Specifications to which the Product must be manufactured by BI Pharma, both for bulk drug substance and formulated drug product; and

WHEREAS, FibroGen wishes to engage BI Pharma to conduct additional GMP runs, in compliance with the terms of the Supply Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Fourth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]**", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement BI Pharma, and pursuant thereto BI Pharma shall manufacture on behalf of FibroGen in accordance with the Supply Agreement, **[*]** and **[*]**.

(3) The Specifications for the Product to be produced pursuant to Section 2 hereof have agreed to by the Parties and are set forth in the Amended and Restated Quality Agreement by and between the Parties, and are hereby added as an amendment to Appendix 9 to the Supply Agreement, and shall apply to the activities contemplated by Section (2) above as part of the Acceptance Criteria for the Product.

(4) This Fourth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Fourth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Fourth Amendment.

(5) This Fourth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Fourth Amendment to the Supply Agreement as of Fourth Amendment Effective Date.

FIBROGEN, INC.

By: /s/ Michael Lowenstein
Name: Michael Lowenstein
Title: Legal Attorney
Date: January 24, 2011

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG
ppa.

By: **[*]**
Name: **[*]**
Title: VP Legal Germany
Date: January 27, 2011

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG
ppa.

By: **[*]**
Name: **[*]**
Title: VP Business & Contracts
Date: January 28, 2011

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT A

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(vii)

AMENDMENT NO. 5 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 5 (the "Fifth Amendment") is effective as of April 15, 2011 (the "Fifth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen") amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, the Amendment No. 1, effective as of May 28, 2009, the Amendment No. 3, effective as of November 5, 2010, and the Amendment No. 4, effective as of January 24, 2011 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties".

WHEREAS, FibroGen wishes to engage BI Pharma to conduct **[*]** as outlined in the Amendment No. 4, effective as of January 24, 2011.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Fifth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]** (Work scope and cost estimate, Version of March 16, 2011)", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement, and pursuant thereto BI Pharma shall **[*]** on behalf of FibroGen in accordance with the Supply Agreement.

(3) This Fifth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Fifth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Fifth Amendment.

(4) This Fifth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Fifth Amendment to the Supply Agreement as of Fifth Amendment Effective Date.

FIBROGEN, INC.

By: /s/ Jim Polarek
Name: Jim Polarek
Title: VP, Protein Therapeutics and Collagen Development
Date: April 19, 2011

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

Biberach, April 15, 2011

	ppa.	ppa.
By:	**[*]**	**[*]**
Name:	**[*]**	**[*]**
Title:	VP Business & Contracts	VP Legal Germany

Exhibit:

Exhibit A: Work scope and cost estimate (Version of March 16, 2011)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work scope and cost estimate
(Version of March 16, 2011)
(3 pages)

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(viii)

AMENDMENT NO. 6 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 6 (the "Sixth Amendment"), effective as of May 26, 2011 (the "Sixth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011 (the "Fourth Amendment"), and Amendment No. 5, effective as of April 15, 2011 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties".

WHEREAS, as contemplated under Section 2.4 of the Supply Agreement, BI Pharma has conducted on behalf of FibroGen **[*]** using the Product **[*]**, and the Process and the Product **[*]** have not been materially changed;

WHEREAS, the Parties have agreed upon Specifications to which the Product must be manufactured by BI Pharma, both for bulk drug substance and formulated drug product; and

WHEREAS, FibroGen wishes to engage BI Pharma to conduct additional GMP runs and drug product fills, in compliance with the terms of the Supply Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Sixth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]** (Work Scope and Cost Estimate, Version of November 12, 2010)", as attached to the Fourth Amendment is hereby retroactively as of January 24, 2011 replaced in its entirety by the Work Scope and Cost Estimate, Version of May 24, 2011, which is attached hereto as Exhibit A and is hereby added as an amendment to Appendix 2 to the Supply Agreement, and pursuant thereto BI Pharma shall **[*]** accordance with the Supply Agreement, **[*]** and **[*]**

(3) The Specifications for the Product to be produced pursuant to Section 2 hereof have been agreed to by the Parties and are set forth in the Amended and Restated Quality Agreement by and between the Parties and shall apply to the activities contemplated by Section (2) above as part of the Acceptance Criteria for the Product.

(4) This Sixth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Sixth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Sixth Amendment.

(5) This Sixth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Sixth Amendment to the Supply Agreement as of Sixth Amendment Effective Date.

Biberach, July 15, 2011

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

i.V.	i.V.
[*]	**[*]**
[*]	**[*]**
Dir. Business and Contracts	Head of Team Biberach — Dep. Legal Germany

San Francisco, July 18, 2011

FIBROGEN, INC

/s/ Jim Polarek	
Name Jim Polarek	Name
Title: VP Protein Therapeutics and Collagen Development	Title

Exhibit:

Exhibit A: Work Scope and Cost Estimate (Version of May 24, 2011)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A

Work Scope and Cost Estimate
(Version of May 24, 2011)
(4 pages)

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.28(ix)

AMENDMENT NO. 7 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 7 (the "Seventh Amendment"), effective as of January 01, 2012 (the "Seventh Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, and Amendment No. 6, effective as of May 26, 2011 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties".

WHEREAS, as contemplated under Section 2.4 of the Supply Agreement, BI Pharma has conducted on behalf of FibroGen **[*]** using the Product **[*]**, and the Process and the Product **[*]** have not been materially changed;

WHEREAS, the Parties have agreed upon Specifications to which the Product must be manufactured by BI Pharma, both for bulk drug substance and formulated drug product; and

WHEREAS, FibroGen wishes to engage BI Pharma to **[*]** to the Supply Agreement and pursuant to the work plan entitled "**[*]**, Version of May 24, 2011" but **[*]** (the "**[*]**"); and to **[*]**, in compliance with the terms of the Supply Agreement as set forth in and as amended by this Seventh Amendment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Seventh Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) The Parties agree that pursuant to Section 2.2 of the Supply Agreement, the work plan (in its current version, i.e. as amended by the Work Scope and Cost Estimate entitled "**[*]**, Version of May 24, 2011" entered into under Amendment **6** to the Supply Agreement) shall be amended by the "Work Scope entitled "**[*]** (Version of February 2, 2012)", attached hereto as Exhibit A, and is hereby added as an amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI Pharma shall manufacture and/or supply, as applicable, under the terms and conditions of the Supply Agreement (including but not limited to Section 4.1 of the Supply Agreement) and this Seventh Amendment, (i) the **[*]** (ii) **[*]** of **[*]**, (iii) **[*]**, and (iv) **[*]** of **[*]** under (iii) above.

(3) The Specifications for the Product to be produced pursuant to Section 2 hereof have been agreed to by the Parties and are set forth in the Amended and Restated Quality Agreement by and between the Parties and shall apply to the activities contemplated by Section (2) above as part of the Acceptance Criteria for the Product.

(4) This Seventh Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Seventh Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Seventh Amendment.

(5) This Seventh Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

Space Left Intentionally Blank — Signatures on Following Page

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS WHEREOF, the Parties have executed this Seventh Amendment to the Supply Agreement as of Seventh Amendment Effective Date.

Biberach, Febraury 8, 2012

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa.

[*]
[*]
Head of Team Biberach — Dep. Legal Germany

i.V.

[*]
[*]
Dir. Business & Contracts

San Francisco, February 2, 2012

FIBROGEN, INC

/s/ James Polarek
Dr. James Polarek
VP, Protein Therapeutics and Collagen Development

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of February 2, 2012)

[*]

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[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.28(x)

AMENDMENT NO. 8 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 8 (the "Eighth Amendment"), effective retroactively as of July 10, 2012 (the "Eighth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011 and Amendment No. 7, effective as of January 01, 2012 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen wishes to engage BI Pharma to **[*]** of the Product, **[*]** of the Product and **[*]**, in **[*]** which has been provided by FibroGen, in compliance with the terms of the Supply Agreement as set forth in and as amended by this Eighth Amendment. Additional documentation for **[*]** for **[*]** with respect to **[*]** under the Supply Agreement will also be provided, if requested by Fibrogen.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Eighth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]** (Work Scope, Version of September 18, 2012)", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI Pharma shall **[*]** provided by FibroGen on behalf of FibroGen in accordance with the Supply Agreement.

(3) The Deliverables related to the Work Scope as indicated in the attached Exhibit A hereto is for BI Pharma to **[*]** provided by FibroGen, and, during the term of the Supply Agreement, to **[*]**, as further described in the Work Scope (Exhibit A) which may arise from **[*]**, as needed and requested by FibroGen in the course of **[*]** and the continuation of the Project regarding the specific **[*]**.

The total aggregate payment of **[*]** (as listed under Exhibit A hereto) will be paid by FibroGen to BI Pharma upon **[*]** and provision of such **[*]** to FibroGen. Any questions regarding **[*]** which may arise from the **[*]** will be **[*]** by BI Pharma, as needed and requested by FibroGen in the course of **[*]** and the continuation of the project.

(4) This Eighth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Eighth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Eighth Amendment.

(5) This Eighth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Eighth Amendment to the Supply Agreement as of Eighth Amendment Effective Date.

Biberach, January 9, 2013

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

i.V.

[*]
[*]
VP Business & Contracts

ppa.

[*]
[*]
Head of Team Biberach — Dep. Legal Germany

San Francisco, January 24, 2012

FIBROGEN, INC

/s/ Jim Polarek
Name: Jim Polarek
Title: VP Protein Therapeutics and Collagen Development

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of September 18, 2012)

[*]

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[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.28(xi)

AMENDMENT NO. 9 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 9 (the "Ninth Amendment"), effective as of November 26, 2012 (the "Ninth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, and Amendment No. 8 (which is under negotiation simultaneously) (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen and BI Pharma agreed to the work plan entitled "**[*]** (Version of February 2, 2012)" and both parties are now in agreement that (i) some parts of this work plan have been successfully performed by BI Pharma, and (ii) some other parts need to be removed from said work plan and be replaced by other work packages;

WHEREAS, FibroGen additionally wishes to engage BI Pharma to **[*]**, among others **[*]**, in compliance with the terms of the Supply Agreement as amended by this Ninth Amendment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Sections 2.1, 2.2 and 4 of the work plan entitled "**[*]** (Version of February 2, 2012)" shall be deleted. The other parts of this work plan, including those portions of the work plan which have been performed by BI Pharma, shall remain in full force and effect.

(2) Pursuant to Section 2.2 of the Supply Agreement, additional work packages shall be performed under the Agreement and therefore the Project shall be amended and replaced by the work plan entitled "**[*]** (Version of November 26, 2012)", which is attached hereto as Exhibit A and is hereby added as an amendment to Appendix 2 to the Supply Agreement. These additional work packages are

a) **[*]** (as defined in the Sixth Amendment), **[*]** under the Seventh Amendment that are now deleted according to Section (1) of this Ninth Amendment, and

b) **[*]**,

in accordance with the Supply Agreement.

(3) This Ninth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full

force and effect. All express or implied agreements and understandings that conflict with the terms of this Ninth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Ninth Amendment.

(4) This Ninth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Ninth Amendment to the Supply Agreement as of Ninth Amendment Effective Date.

Biberach, February 21, 2013

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa.

[*]
[*]
VP Business & Contracts

ppa.

[*]
[*]
Head of Team Biberach – Dep. Legal Germany

San Francisco, March 25, 2013

FIBROGEN, INC

/s/ James Polarek
Name James W. Polarek
Title VP, Protein Therapeutics and Collagen Development

Name
Title

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of November 26, 2012)

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[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.28(xii)

AMENDMENT NO. 10 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 10 (the "Tenth Amendment"), effective as of June 21, 2013 (the "Tenth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, Amendment No. 8, effective as of July 10, 2012 and Amendment No. 9, effective as of November 26, 2012 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as, the "Parties".

WHEREAS, FibroGen wishes to engage BI Pharma to **[*]**, in compliance with the terms of the Supply Agreement as set forth in and as amended by this Tenth Amendment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Tenth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) The Parties agree that pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]**, Version of April 19, 2013", attached hereto as Exhibit A, is hereby added as an Amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI Pharma shall, on behalf of FibroGen, manufacture in accordance with the Supply Agreement, (i) **[*]** (as defined in the Amended and Restated Quality Agreement between the Parties dated March 03, 2011 (hereinafter "Amended and Restated Quality Agreement"), (ii) **[*]** (as defined in the Amended and Restated Quality Agreement) **[*]**, and (iii) **[*]**. The term **[*]** shall mean **[*]** for clinical supply that **[*]** agreed upon between the Parties in writing.

(3) The Specifications for **[*]** pursuant to Section 2 hereof have been agreed to by the Parties and are set forth in the Amended and Restated Quality Agreement by and between the Parties. Such Specifications for **[*]**, as applicable, shall apply to the activities contemplated by Section (2) above as part of the Acceptance Criteria for **[*]**, respectively.

(4) All provisions of the Supply Agreement relating to the manufacture of Product which are reasonably applicable to **[*]** shall apply accordingly to such **[*]** as set forth in Exhibit A hereto, including but not limited the provisions regarding delivery of Product set forth in Section 4 of the Supply Agreement, Parties' warranties set forth in Section 7 of the Supply Agreement (including, for the avoidance of doubt, the disclaimer set forth in Section 7.5 of the Supply Agreement) and the limitations of the Parties' liability and indemnification obligations set forth in Section 8 of the Supply Agreement.

(5) This Tenth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Tenth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Tenth Amendment.

(6) This Tenth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Tenth Amendment to the Supply Agreement as of Tenth Amendment Effective Date.

Biberach, June 21, 2013

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa. i.V.

[*] **[*]**
[*] **[*]**
Head of Corporate Legal Biopharma Dir. Business & Contracts

San Francisco ,2013

FIBROGEN, INC

/s/ Jim Polarek
Name Jim Polarek
Title Vice President

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of April 19, 2013)

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Exhibit 10.28(xiii)

AMENDMENT NO. 11 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 11 (the "Eleventh Amendment"), effective as of July 09, 2013 (the "Eleventh Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, Amendment No. 8, effective as of July 10, 2012, Amendment No. 9, effective as of November 26, 2012 and Amendment No. 10, effective as of June 21, 2013 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen wishes BI Pharma (i) to **[*]** from **[*]** and (ii) to **[*]** at BI Pharma, in both cases (i) and (ii) in compliance with the terms of the Supply Agreement as set forth in and as amended by this Eleventh Amendment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Eleventh Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]**, Version of July 09, 2013", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI Pharma shall (i) **[*]** from **[*]** and (ii) **[*]** at BI Pharma, in both cases (i) and (ii) in accordance with the Supply Agreement.

(3) This Eleventh Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Eleventh Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Eleventh Amendment.

(4) This Eleventh Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Eleventh Amendment to the Supply Agreement as of Eleventh Amendment Effective Date.

Biberach, July 23, 2013

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa.

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[*]
VP Business & Contracts

ppa.

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[*]
Head of Team Biberach – Dep. Legal Germany

San Francisco, July 31, 2013

FIBROGEN, INC

/s/ Jim Polarek
Name Jim Polarek
Title Vice President

Name
Title

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of July 09, 2013)

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Exhibit 10.28(xiv)

AMENDMENT NO. 12 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 12 (the "Twelfth Amendment"), effective as of August 01, 2013 (the "Twelfth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, Amendment No. 8, effective as of July 10, 2012, Amendment No. 9, effective as of November 26, 2012, Amendment No. 10, effective as of June 21, 2013 and Amendment No. 11, effective as of June 26, 2013 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen wishes BI Pharma to **[*]** the terms of the Supply Agreement as set forth in and as amended by this Twelfth Amendment.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Twelfth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]**, Version of July 12 2013", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI Pharma shall on behalf of FibroGen, **[*]** in accordance with the Supply Agreement. Parties are in agreement, that **[*]** such **[*]** under the Supply Agreement and **[*]**. In the event that Parties agree to **[*]** in the further development of the Product, the terms and conditions of **[*]** in the course of the Project and **[*]** are subject to separate discussion and agreement between the Parties.

(3) This Twelfth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Twelfth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Twelfth Amendment.

(4) This Twelfth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Twelfth Amendment to the Supply Agreement as of Twelfth Amendment Effective Date.

Biberach, July 18, 2013

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa.

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[*]
VP Business & Contracts

ppa.

[*]
[*]
Head of Team Biberach – Dep. Legal Germany

San Francisco, July 31, 2013

FIBROGEN, INC

/s/ Jim Polarek
Name Jim Polarek
Title Vice President

Name
Title

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
(Version of July 12, 2013)

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[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.28(xv)

AMENDMENT NO. 13 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT

THIS AMENDMENT NO. 13 (the "Thirteenth Amendment"), effective as of March 06, 2014 (the "Thirteenth Amendment Effective Date") by and between **Boehringer Ingelheim Biopharmaceuticals GmbH**, Binger Str. 173, 55216 Ingelheim, Germany ("BI") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between Boehringer Ingelheim Pharma GmbH & Co. KG, Birkendorfer Str. 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, Amendment No. 8, effective as of July 10, 2012, Amendment No. 9, effective as of November 26, 2012, Amendment No. 10, effective as of June 21, 2013, Amendment No. 11, effective as of June 26, 2013 and Amendment No. 12, effective as of August 01, 2013 and subsequenty assigned by BI Pharma to BI (hereinafter together the "Supply Agreement"). BI and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen wishes to engage BI to **[*]** in compliance with the terms of the Supply Agreement as set forth in and as amended by this Thirteenth Amendment. The activities hereunder will be performed by BI Pharma on behalf of BI.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this ThirteenthAmendment shall have the meaning ascribed to them in the Supply Agreement.

(2) The Parties agree that pursuant to Section 2.2 of the Supply Agreement, the work plan entitled "**[*]**, Version of March 6, 2014", attached hereto as Exhibit A, is hereby added as an amendment to Appendix 2 to the Supply Agreement. Pursuant thereto BI shall on behalf of FibroGen, (A) **[*]** after the **[*]** and provide the results to FibroGen and (B) manufacture in accordance with the Supply Agreement (i) **[*]** as defined in the Amended and Restated Quality Agreement between the Parties dated March 03, 2011 (hereinafter "Amended and Restated Quality Agreement"), (ii) **[*]** (as defined in the Amended and Restated Quality Agreement) **[*]**, and (iii) **[*]** (as defined in the Supply Agreement).

(3) The Specifications for **[*]** pursuant to Section 2 hereof have been agreed to by the Parties and are set forth in the Amended and Restated Quality Agreement by and between the Parties. Such Specifications for **[*]**, as applicable, shall apply to the activities contemplated by Section (2) above as part of the Acceptance Criteria for **[*]**, respectively.

(4) For the avoidance of doubt, all provisions of the Supply Agreement relating to the manufacture of Product which are reasonably applicable to **[*]** shall apply accordingly to **[*]** as set forth in Exhibit A hereto, including but not limited the provisions regarding delivery of Product set forth in Section 4 of the Supply Agreement, Parties' warranties set forth in Section 7 of the Supply Agreement (including, for the avoidance of doubt, the disclaimer set forth in Section 7.5 of the Supply Agreement) and the limitations of BI Pharma's liability and indemnification obligations set forth in Section 8 of the Supply Agreement.

(5) This Thirteenth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Thirteenth Amendment, either oral or written, heretofore made with respect to subject matter herein are expressly superseded by this Thirteenth Amendment.

(6) This Thirteenth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Thirteenth Amendment to the Supply Agreement as of Thirteenth Amendment Effective Date.

Signatures on following page.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Ingelheim, March 7, 2014

BOEHRINGER INGELHEIM BIOPHARMACEUTICALS GMBH

ppa.	ppa.
[*]	**[*]**
[*]	**[*]**
VP Business & Contracts	Head of Team Biberach – Dep. Legal Germany

San Francisco, 2014

FIBROGEN, INC

/s/ Michael Lowenstein	/s/ Jim Polarek
Name Michael Lowenstein	Name Jim Polarek
Title VP- Legal	Title VP

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
[*]
(Version of March 06, 2014)

[*]

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Exhibit 10.28(xvi)

AMENDMENT NO. 14 TO THE PROCESS DEVELOPMENT AND CLINICAL SUPPLY AGREEMENT
BETWEEN
FIBROGEN, INC. AND BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

THIS AMENDMENT NO. 14 (the "Fourteenth Amendment"), effective as of February 5, 2014 (the "Thirteenth Amendment Effective Date") by and between **Boehringer Ingelheim Pharma GmbH & Co. KG**, Birkendorfer Straße 65, 88397 Biberach an der Riss, Germany ("BI Pharma") and **FibroGen, Inc.**, 409 Illinois Street, San Francisco, CA 94158, USA ("FibroGen"), amends the Process Development and Clinical Supply Agreement entered into by and between BI Pharma and FibroGen on November 29, 2007, as amended pursuant to the letter agreements entered into as of June 26, 2008 and August 18, 2008, Amendment No. 1, effective as of May 28, 2009, Amendment No. 3, effective as of November 5, 2010, Amendment No. 4, effective as of January 24, 2011, Amendment No. 5, effective as of April 15, 2011, Amendment No. 6, effective as of May 26, 2011, Amendment No. 7, effective as of January 01, 2012, Amendment No. 8, effective as of July 10, 2012, Amendment No. 9, effective as of November 26, 2012, Amendment No. 10, effective as of June 21, 2013, Amendment No. 11, effective as of July 9, 2013 and Amendment No. 12, effective as of August 1, 2013 (hereinafter together the "Supply Agreement"). BI Pharma and FibroGen shall be referred to individually herein as a "Party", and collectively as the "Parties".

WHEREAS, FibroGen wishes BI Pharma to perform **[*]** in compliance with the terms of the Supply Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

(1) Unless otherwise defined herein, all capitalized terms and phrases used in this Fourteenth Amendment shall have the meaning ascribed to them in the Supply Agreement.

(2) Pursuant to Section 2.2 of the Supply Agreement, Appendix 2 to the Supply Agreement is hereby amended to add the work plan entitled "**[*]**, Version of March 4, 2014" attached hereto as Exhibit A. In accordance with such work plan, BI Pharma shall **[*]** and if FibroGen **[*]**, BI Pharma shall **[*]**, and **[*]** for FibroGen in accordance with the Supply Agreement. The Parties agree that the Deliverables to be delivered to FibroGen will include **[*]**. In the event that the Parties agree to **[*]** in the further development of the Product, the terms and conditions for **[*]** in the course of the Project and any license thereto shall be subject to separate discussion and pursuant to a separate agreement between the Parties.

(3) This Fourteenth Amendment, together with the Supply Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Except as otherwise provided herein, the Supply Agreement has not been modified or amended and remains in full force and effect. All express or implied agreements and understandings that conflict with the terms of this Fourteenth Amendment, either oral or written, made with respect to the subject matter herein are expressly superseded by this Fourteenth Amendment.

(4) This Fourteenth Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile and/or via portable document format (pdf) (or similar format), each of which shall be binding when sent.

IN WITNESS WHEREOF, the Parties have executed this Fourteenth Amendment to the Supply Agreement as of Fourteenth Amendment Effective Date.

Biberach, January 7, 2014

BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG

ppa.	ppa.
[*]	**[*]**
[*]	**[*]**
VP Business & Contracts	Head of Legal Biopharma

San Francisco, March 11, 2014

FIBROGEN, INC.

/s/ Jim Polarek	
Name Jim Polarek	Name
Title Vice President	Title

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit A
Work Scope
[*]
Version of March 4, 2014

Please see following page.

[*]

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