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

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No.)*

IGM Biosciences, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value per share

(Title of Class of Securities)

449585108

(CUSIP Number)

**Redmile Group, LLC
Jeremy C. Green
One Letterman Drive, Bldg D, Ste D3-300
San Francisco, CA 94129
Attention: Legal Department
(415) 489-9980**

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

September 20, 2019

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 13d-7(b) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

| | | |
|--|---|---|
| 1. | NAME OF REPORTING PERSON Redmile Group, LLC | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3. | SEC USE ONLY | |
| 4. | SOURCE OF FUNDS (SEE INSTRUCTIONS) OO (1) | |
| 5. | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="checkbox"/> | |
| 6. | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7. | SOLE VOTING POWER 0 |
| | 8. | SHARED VOTING POWER 3,144,000 (2) |
| | 9. | SOLE DISPOSITIVE POWER 0 |
| | 10. | SHARED DISPOSITIVE POWER 3,144,000 (2) |
| 11. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,144,000 (2) | |
| 12. | CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | |
| 13. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.0% (3) | |
| 14. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IA, OO | |

(1) The source of funds was working capital of the Redmile Affiliates (as defined in footnote (2) below).

(2) The aggregate amount of shares of common stock, \$0.01 par value per share, of the Issuer (the “Common Stock”) that may be deemed beneficially owned by the Reporting Persons is comprised of the following: (i) 561,300 shares of Common Stock held by Redmile Capital Fund, L.P., (ii) 1,407,200 shares of Common Stock held by Redmile Capital Offshore Fund, Ltd., (iii) 99,200 shares of Common Stock held by Redmile Capital Offshore Fund (ERISA), Ltd., (iv) 230,800 shares of Common Stock held by Redmile Capital Offshore Fund II, Ltd., (v) 216,500 shares of Common Stock and 84,850 shares of the Issuer’s non-voting Common Stock (the “Non-Voting Common Stock”) held by Redmile Strategic Master Fund, LP, (vi) 1,513,225 shares of Non-Voting Common Stock held by Redmile Biopharma Investments II, L.P., (vii) 91,100 shares of Common Stock held by P Redmile Ltd., (viii) 293,455 shares of Non-Voting Common Stock held by RAF, L.P., (ix) 175,087 shares of Common Stock held by Map 20 Segregated Portfolio, a segregated portfolio of LMA SPC, and (x) 362,813 shares of Common Stock held by a separately managed account. Redmile Group, LLC is the investment manager/adviser to each of the private investment vehicles and separately managed accounts listed in items (i) through (x) (collectively, the “Redmile Affiliates”) and, in such capacity, exercises sole voting and investment power over all of the shares held by the Redmile Affiliates and may be deemed to be the beneficial owner of these shares. Jeremy C. Green serves as the managing member of Redmile Group, LLC and also may be deemed to be the beneficial owner of these shares. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any. The Non-Voting Common Stock is initially convertible into shares of Common Stock on a one-for-one basis. Pursuant to the Issuer’s Amended and Restated Certificate of Incorporation (the “Certificate of Incorporation”), the Issuer may not effect any conversion of the Non-Voting Common Stock, and a holder of the Non-Voting Common Stock does not have the right to convert any portion of the Non-Voting Common Stock held by such holder, to the extent that, after giving effect to the attempted conversion set forth in a notice of conversion, such holder, together with such holder’s affiliates and any other person whose beneficial ownership of Common Stock would be aggregated with such holder’s for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the applicable regulations of the Securities and Exchange Commission (the “SEC”), including any “group” of which such holder is a member, would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation (the “Beneficial Ownership Blocker”). The “Beneficial Ownership Limitation” is 4.99% of the shares of Common Stock then issued and outstanding, which percentage may be changed at a holder’s election upon 61 days’ notice to the Issuer. Because the percentage of shares of Common Stock collectively held directly by the Redmile Affiliates currently exceeds 4.99%, the conversion of the Non-Voting Common Stock held by the Redmile Affiliates is currently limited in its entirety by the Beneficial Ownership Blocker and the Reporting Persons therefore cannot be deemed to have beneficial ownership over any of the shares of Common Stock issuable upon conversion of the Non-Voting Common Stock and such shares have not been included in the aggregate amount of shares of Common Stock beneficially owned as reported in the table above.

(3) Percent of class calculated based on: (a) 22,460,740 shares of Common Stock outstanding after the Issuer’s initial public offering, as disclosed in the Issuer’s final prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act of 1933, as amended, on September 18, 2019 (the “Final Prospectus”), plus (b) 1,640,625 shares of Common Stock issued in the Issuer’s initial public offering pursuant to the full exercise of the underwriters’ option to purchase additional shares.

| | | |
|--|---|---|
| 1. | NAME OF REPORTING PERSON Jeremy C. Green | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3. | SEC USE ONLY | |
| 4. | SOURCE OF FUNDS (SEE INSTRUCTIONS) OO (1) | |
| 5. | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <input type="checkbox"/> | |
| 6. | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7. | SOLE VOTING POWER 0 |
| | 8. | SHARED VOTING POWER 3,144,000 (2) |
| | 9. | SOLE DISPOSITIVE POWER 0 |
| | 10. | SHARED DISPOSITIVE POWER 3,144,000 (2) |
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| 13. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.0% (3) | |
| 14. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN, HC | |

(1) The source of funds was working capital of the Redmile Affiliates.

(2) The aggregate amount of shares of Common Stock that may be deemed beneficially owned by the Reporting Persons is comprised of the following: (i) 561,300 shares of Common Stock held by Redmile Capital Fund, L.P., (ii) 1,407,200 shares of Common Stock held by Redmile Capital Offshore Fund, Ltd., (iii) 99,200 shares of Common Stock held by Redmile Capital Offshore Fund (ERISA), Ltd., (iv) 230,800 shares of Common Stock held by Redmile Capital Offshore Fund II, Ltd., (v) 216,500 shares of Common Stock and 84,850 shares of Non-Voting Common Stock held by Redmile Strategic Master Fund, LP, (vi) 1,513,225 shares of Non-Voting Common Stock held by Redmile Biopharma Investments II, L.P., (vii) 91,100 shares of Common Stock held by P Redmile Ltd., (viii) 293,455 shares of Non-Voting Common Stock held by RAF, L.P., (ix) 175,087 shares of Common Stock held by Map 20 Segregated Portfolio, a segregated portfolio of LMA SPC, and (x) 362,813 shares of Common Stock held by a separately managed account. Redmile Group, LLC is the investment manager/adviser to each of the private investment vehicles and separately managed accounts listed in items (i) through (x) and, in such capacity, exercises sole voting and investment power over all of the shares held by the Redmile Affiliates and may be deemed to be the beneficial owner of these shares. Jeremy C. Green serves as the managing member of Redmile Group, LLC and also may be deemed to be the beneficial owner of these shares. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any. The Non-Voting Common Stock is initially convertible into shares of Common Stock on a one-for-one basis. Pursuant to the Certificate of Incorporation, the Issuer may not effect any conversion of the Non-Voting Common Stock, and a holder of the Non-Voting Common Stock does not have the right to convert any portion of the Non-Voting Common Stock held by such holder, if the Beneficial Ownership Blocker applies. Because the percentage of shares of Common Stock collectively held directly by the Redmile Affiliates currently exceeds 4.99%, the conversion of the Non-Voting Common Stock held by the Redmile Affiliates is currently limited in its entirety by the Beneficial Ownership Blocker and the Reporting Persons therefore cannot be deemed to have beneficial ownership over any of the shares of Common Stock issuable upon conversion of the Non-Voting Common Stock and such shares have not been included in the aggregate amount of shares of Common Stock beneficially owned as reported in the table above.

(3) Percent of class calculated based on: (a) 22,460,740 shares of Common Stock outstanding after the Issuer's initial public offering, as disclosed in the Final Prospectus, plus (b) 1,640,625 shares of Common Stock issued in the Issuer's initial public offering pursuant to the full exercise of the underwriters' option to purchase additional shares.

ITEM 1. Security and Issuer.

The security to which this Schedule 13D relates is the common stock, \$0.01 par value per share ("Common Stock"), of IGM Biosciences, Inc., a Delaware corporation (the "Issuer"). The principal executive offices of the Issuer are located at 325 E. Middlefield Road, Mountain View, CA 94043.

ITEM 2. Identity and Background.

(a), (b), (c) and (f). This Schedule 13D is being filed jointly by Redmile Group, LLC, a Delaware limited liability company ("Redmile"), and Jeremy C. Green, a citizen of the United Kingdom (together with Redmile, the "Reporting Persons"), pursuant to the provisions of Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as separate persons and not as members of a group. See Exhibit 99.1 to this Schedule 13D for their Joint Filing Agreement.

Redmile Group, LLC

Redmile Group, LLC is a Delaware limited liability company whose principal business is to serve as investment manager/adviser to certain private investment funds and separately managed accounts, including Redmile Capital Fund, L.P., Redmile Capital Offshore Fund, Ltd., Redmile Capital Offshore Fund (ERISA), Ltd., Redmile Capital Offshore Fund II, Ltd., Redmile Strategic Master Fund, LP, Redmile Biopharma Investments II, L.P., P Redmile Ltd., RAF, L.P. and Map 20 Segregated Portfolio, a segregated portfolio of LMA SPC. The business address of Redmile is One Letterman Drive, Bldg D, Ste D3-300, San Francisco, CA 94129. Information relating to the managing member of Redmile is set forth below.

Jeremy C. Green

The principal occupation of Jeremy C. Green is managing member of Redmile Group, LLC. The business address of Jeremy C. Green is One Letterman Drive, Bldg D, Ste D3-300, San Francisco, CA 94129. Jeremy C. Green is a citizen of the United Kingdom.

(d) and (e). During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and, as a result of such proceeding, was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws. During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

ITEM 3. Source and Amount of Funds or Other Consideration.

The source of funds was working capital of the entities for which Redmile Group, LLC is the investment manager/adviser listed in items (i) through (x) of Item 5(a) below. The stock option to purchase shares of Common Stock was granted to Michael S. Lee in connection with his service on the Issuer's Board of Directors pursuant to the Issuer's non-employee director compensation policy.

The shares of non-voting Common Stock ("Non-Voting Common Stock") held by certain of the Redmile Affiliates (as defined in Item 5(a) below) were issued immediately prior to the Issuer's initial public offering (the "IPO") upon the conversion of the Issuer's Series C Preferred Stock, \$0.01 par value per share (the "Series C Preferred Stock"). On June 27, 2019, the Issuer entered into a Series C Preferred Stock Purchase Agreement (the "Series C Purchase Agreement") for a Series C financing (the "Series C Financing") with a group of institutional investors, including certain of the Redmile Affiliates. Pursuant to the Series C Purchase Agreement, such Redmile Affiliates purchased an aggregate of 12,500,000 shares of Series C Preferred Stock at a price of \$2.00 per share. The source of funds was working capital of such Redmile Affiliates. On August 30, 2019, the Issuer effected a 6.6084-for-1 reverse stock split of the Issuer's Common Stock, Non-Voting Common Stock and convertible preferred stock. Upon completion of the reverse stock split, such Redmile Affiliates held an aggregate of 1,891,530 shares of Series C Preferred Stock. In accordance with the terms of the Issuer's Amended and Restated Certificate of Incorporation, such Redmile Affiliates had the option to convert the Series C Preferred Stock into either shares of the Issuer's voting Common Stock or Non-Voting Common Stock in any proportion at such Redmile Affiliates' sole discretion prior to the closing of a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"), covering the offer and sale of the Issuer's Common Stock. The Redmile Affiliates elected to have all of the Series C Preferred Stock converted into shares of the Issuer's Non-Voting Common Stock, and the Series C Preferred Stock converted into shares of the Issuer's Non-Voting Common Stock upon the closing of the Issuer's IPO on September 20, 2019 on a 1-for-1 basis.

ITEM 4. Purpose of Transaction.

The Reporting Persons acquired the Common Stock covered by this Schedule 13D for investment purposes, in the ordinary course of business.

The Reporting Persons will routinely monitor a wide variety of investment considerations, including, without limitation, current and anticipated future trading prices for the Common Stock, the Issuer's operations, assets, prospects, business development, markets and capitalization, the Issuer's management and personnel, Issuer-related competitive and strategic matters, general economic, financial market and industry conditions, as well as other investment considerations. The Reporting Persons expect to discuss their investment in the Issuer and the foregoing investment considerations with the Issuer's Board of Directors ("Board of Directors"), management, other investors, industry analysts and others. These considerations, these discussions and other factors may result in the Reporting Persons' consideration of various alternatives with respect to their investment, including possible changes in the present Board of Directors and/or management of the Issuer or other alternatives to increase stockholder value. The Reporting Persons may also enter into confidentiality or similar agreements with the Issuer and, subject to such an agreement or otherwise, exchange information with the Issuer. In addition, the Reporting Persons may acquire additional Issuer securities in the public markets, in privately negotiated transactions or otherwise (including through the conversion of shares of the Non-Voting Common Stock that may be deemed to be beneficially owned by the Reporting Persons) or may determine to sell, trade or otherwise dispose of all or some holdings in the Issuer in the public markets, in privately negotiated transactions or otherwise, or take any other lawful action they deem to be in their best interests.

On July 2, 2019, the Issuer's Board of Directors appointed Michael S. Lee, a managing director of Redmile, to serve as a director of the Issuer. Immediately prior to the Issuer's IPO, which was completed on September 20, 2019, Mr. Lee was appointed a Class III director to serve until the Issuer's 2022 Annual Meeting of Stockholders or until his successor has been duly elected and qualified, or until his earlier death, resignation or removal. In connection with Mr. Lee's appointment to the Issuer's Board of Directors, Mr. Lee and the Issuer entered into an Indemnification Agreement with the Issuer. On 27, 2019, Mr. Lee and the Issuer entered into an Indemnification Agreement in the same form as the Issuer's standard form of indemnification agreement with its other directors.

In addition, Mr. Lee is entitled to cash and equity compensation pursuant to the Issuer's Outside Director Compensation Policy (the "Policy"). Pursuant to the Policy, Mr. Lee is entitled to receive an annual cash retainer of \$20,000 to be paid quarterly, in arrears. If Mr. Lee serves on any committees of the Issuer's Board of Directors, he will be entitled to receive additional cash compensation. Under the Policy, non-employee directors receive \$5,000 annually for serving on the audit committee (\$10,000 annually for the chairperson), \$5,000 annually for serving on the compensation committee (\$10,000 annually for the chairperson), \$5,000 annually for serving on the nominating and corporate governance committee (\$10,000 annually for the chairperson) and \$5,000 annually for serving on the research and clinical development committee (\$10,000 annually for the chairperson). A non-employee director also receives \$20,000 annually for serving as the chairperson of the Issuer's Board of Directors.

On September 17, 2019, Mr. Lee received an option to purchase 12,100 shares of the Issuer's common stock at an exercise price of \$16.00 per share. 1/3rd of the shares subject to the option will vest on September 17, 2020 and 1/36th of the shares subject to the option will vest on each monthly anniversary thereafter, subject to Mr. Lee's continued service on the Board of Directors of the Issuer through each vesting date. Pursuant to the Policy, Mr. Lee will also be entitled to receive an option to purchase 6,050 shares of the Issuer's common stock automatically at the same time the Issuer makes annual equity awards to the Issuer's executive officers, which option will vest in equal monthly installments during the twelve months following the date of the Issuer's first annual meeting of stockholders following the date of grant, and will vest in full on the earlier of the twelve-month anniversary of the date of the Issuer's first annual meeting of stockholders following the date of grant and the date of the Issuer's second regularly scheduled annual meeting of stockholders that next follows the date of grant, subject to Mr. Lee's continued service on the Board of Directors of the Issuer through each applicable vesting date.

Pursuant to the policies of Redmile, any stock options or other equity awards granted to Mr. Lee in connection with his service on the Issuer's Board of Directors will be held by him as a nominee on behalf, and for the sole benefit, of Redmile and Mr. Lee will assign all economic, pecuniary and voting rights in respect of any such equity awards to Redmile. Mr. Lee disclaims beneficial ownership of such securities, and the filing of this Schedule 13D shall not be deemed an admission that Mr. Lee is the beneficial owner of such securities for any purpose. The Reporting Persons disclaim beneficial ownership of all such securities except to the extent of their pecuniary interest therein, and this Schedule 13D shall not be deemed an admission that the Reporting Persons are the beneficial owner of such securities any purpose.

Pursuant to the policies of Redmile, all cash compensation that Mr. Lee receives in connection with his service on the Issuer's Board of Directors will be paid by the Issuer directly to Redmile.

Except as set forth in this Item 4, no Reporting Person has any present plans or proposals that relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of assets of the Issuer or of any of its subsidiaries; (d) any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of such directors or to fill any existing vacancies on such board; (e) any material change in the present capitalization or dividend policy of the Issuer; (f) any other material change in the Issuer's business or corporate structure; (g) changes in the Issuer's charter, by-laws or instruments corresponding thereto or other actions that may impede the acquisition of control of the Issuer by any person; (h) causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Exchange Act; or (j) any action similar to any of those enumerated in subparagraphs (a)-(i) above. There is no assurance that the Reporting Persons will develop any plans or proposals with respect to any of these matters. However, the Reporting Persons reserve the right to formulate plans or proposals which would relate to or result in the transactions described in subparagraphs (a) through (j) of this Item 4.

ITEM 5. Interest in Securities of the Issuer.

(a) The aggregate amount of shares of Common Stock that may be deemed beneficially owned by the Reporting Persons is comprised of the following: (i) 561,300 shares of Common Stock held by Redmile Capital Fund, L.P., (ii) 1,407,200 shares of Common Stock held by Redmile Capital Offshore Fund, Ltd., (iii) 99,200 shares of Common Stock held by Redmile Capital Offshore Fund (ERISA), Ltd., (iv) 230,800 shares of Common Stock held by Redmile Capital Offshore Fund II, Ltd., (v) 216,500 shares of Common Stock and 84,850 shares of Non-Voting Common Stock held by Redmile Strategic Master Fund, LP, (vi) 1,513,225 shares of Non-Voting Common Stock held by Redmile Biopharma Investments II, L.P., (vii) 91,100 shares of Common Stock held by P Redmile Ltd., (viii) 293,455 shares of Non-Voting Common Stock held by RAF, L.P., (ix) 175,087 shares of Common Stock held by Map 20 Segregated Portfolio, a segregated portfolio of LMA SPC, and (x) 362,813 shares of Common Stock held by a separately managed account. Redmile Group, LLC is the investment manager/adviser to each of the private investment vehicles and separately managed accounts listed in items (i) through (x) (collectively, the "Redmile Affiliates") and, in such capacity, exercises sole voting and investment power over all of the shares held by the Redmile Affiliates and may be deemed to be the beneficial owner of these shares. Jeremy C. Green serves as the managing member of Redmile Group, LLC and also may be deemed to be the beneficial owner of these shares. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any. The Non-Voting Common Stock is initially convertible into shares of Common Stock on a one-for-one basis. Pursuant to the Issuer's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), the Issuer may not effect any conversion of the Non-Voting Common Stock, and a holder of the Non-Voting Common Stock does not have the right to convert any portion of the Non-Voting Common Stock held by such holder, to the extent that, after giving effect to the attempted conversion set forth in a notice of conversion, such holder, together with such holder's affiliates and any other person whose beneficial ownership of Common Stock would be aggregated with such holder's for purposes of Section 13(d) of the Exchange Act, and the applicable regulations of the Securities and Exchange Commission (the "SEC"), including any "group" of which such holder is a member, would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation (the "Beneficial Ownership Blocker"). The "Beneficial Ownership Limitation" is 4.99% of the shares of Common Stock then issued and outstanding, which percentage may be changed at a holder's election upon 61 days' notice to the Issuer. Because the percentage of shares of Common Stock collectively held directly by the Redmile Affiliates currently exceeds 4.99%, the conversion of the Non-Voting Common Stock held by the Redmile Affiliates is currently limited in its entirety by the Beneficial Ownership Blocker and the Reporting Persons therefore cannot be deemed to have beneficial ownership over any of the shares of Common Stock issuable upon conversion of the Non-Voting Common Stock and such shares have not been included in the aggregate amount of shares of Common Stock beneficially owned as reported in Item 5(b) below.

For purposes of this Schedule 13D, the percent of class was calculated based on: (a) 22,460,740 shares of Common Stock outstanding after the Issuer's IPO, as disclosed in the Issuer's final prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act on September 18, 2019 (the "Final Prospectus"), plus (b) 1,640,625 shares of Common Stock issued in the Issuer's initial public offering pursuant to the full exercise of the underwriters' option to purchase additional shares.

(b) Redmile Group, LLC:

- (1) Sole Voting Power: 0
- (2) Shared Voting Power: 3,144,000
- (3) Sole Dispositive Power: 0
- (4) Shared Dispositive Power: 3,144,000

Jeremy C. Green:

- (1) Sole Voting Power: 0
- (2) Shared Voting Power: 3,144,000
- (3) Sole Dispositive Power: 0
- (4) Shared Dispositive Power: 3,144,000

(c) The information in Item 6 below is incorporated herein by reference.

(d) Not applicable.

(e) Not applicable.

ITEM 6. Contracts, Arrangements, Understandings or Relationship with Respect to the Securities of the Issuer.

Investor Rights Agreement

In connection with the Series C Financing and the issuance and sale of Series C Preferred Stock, on June 28, 2019, the Issuer and certain of the Issuer's stockholders, including certain of the Redmile Affiliates, entered into an amended and restated investor rights agreement (the "Investor Rights Agreement"). Pursuant to the Investor Rights Agreement, the Issuer agreed to prepare and file a registration statement with the SEC to register for resale (i) the shares of Common Stock issued or issuable to the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, (ii) the shares of Common Stock issued or issuable upon conversion of shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock of the Issuer, (iii) the stock issued with respect to or in any exchange for or in replacement of stock included in (ii) above, and (iv) stock issued in respect of the stock referred to in (ii) and (iii) above as a result of a stock split, stock dividend or the like (collectively, the "Registrable Securities") in certain situations, as provided below.

Demand Registration Rights. The Issuer agreed to prepare and file a registration statement for resale of the Registrable Securities within 90 days of the receipt of a written request from the holders of, in the aggregate, at least 72% of the Registrable Securities that the Issuer effect any registration with respect to all or part of the Registrable Securities. The Issuer will not be required to prepare and file such registration statement: (a) prior to the date that is 180 days following the effective date of the Issuer's IPO; (b) in any particular jurisdiction in which the Issuer would be required to execute a general consent to service of process in effecting such registration, unless the Issuer is already subject to service in such jurisdiction and except as may be required by the Securities Act; (c) after the Issuer has effected two such registrations and such registrations have been declared or ordered effective; (d) if the Issuer qualifies at that time to register the securities requested to be registered pursuant to a registration statement on Form S-3; or (e) if the holders of Registrable Securities requesting registration, together with the holders of any other securities of the Issuer entitled to inclusion in such registration statement, propose to sell Registrable Securities and such other securities (if any) with aggregate proceeds of which (after deduction for underwriter's discounts and expenses related to the issuance) are less than \$10,000,000.

Piggyback Registration Rights. Pursuant to Investor Rights Agreement, if the Issuer proposes to register any of its securities, for its own account or the account of any of its shareholders other than the holders of the Registrable Securities, then the Issuer will provide the holders of the Registrable Securities with written notice thereof and the Issuer will include in such registration all the Registrable Securities specified in a written request or requests made by any holders of the Registrable Securities within 20 days of receipt of such written notice from the Issuer.

Form S-3 Registration Rights. After the Issuer has qualified for the use of a registration statement on Form S-3, the holders of not less than 25% of the outstanding Registrable Securities will have the right to request an unlimited number of registrations on Form S-3. The Issuer will not be required to prepare such a registration statement on Form S-3: (a) within 120 days of the effective date of a registration pursuant to the demand registration rights or piggyback registration rights described above; (b) unless the holder or holders of Registrable Securities requesting registration propose to dispose of shares of Registrable Securities having an aggregate disposition price (before deduction of underwriting discounts and expenses of sale) of at least \$5,000,000; or (c) if at least two registrations pursuant to this Form S-3 registration right have occurred in any consecutive 12-month period.

The foregoing summary of the Investor Rights Agreement is not intended to be complete and is qualified in its entirety by reference to the full text of such document, which is filed as Exhibit 99.2 to this Schedule 13D and is incorporated herein by reference.

Nominating Agreement

On June 28, 2019, pursuant to a nominating agreement entered into by and among the Issuer and certain of the Redmile Affiliates (the "Nominating Agreement"), such Redmile Affiliates received the right to nominate an individual to the Issuer's Board of Directors during the period beginning at the closing of the Issuer's IPO until the earliest of: (a) the twelfth anniversary of the closing of the Issuer's IPO; (b) such time as the Redmile Affiliates and their respective affiliates, no longer beneficially own, collectively, at least 6,250,000 shares of Series C Preferred Stock or the equivalent of any successor securities issued upon conversion of such Series C Preferred Stock (including shares of voting Common Stock issued upon conversion of Non-Voting Common Stock issued upon conversion of the shares of Series C Preferred Stock) (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such Series C Preferred Stock); or (c) following the third year anniversary of the Issuer's IPO, such time as the Redmile Affiliates collectively hold less than 5% of the as-converted securities of the Issuer. Pursuant to the Nominating Agreement, the Issuer agreed to support the nomination of, and cause the Issuer's Board of Directors (or the nominating committee thereof), to recommend and include such individual in the slate of nominees recommended to the Issuer's stockholders for election as directors of the Issuer at each annual or special meeting of the Issuer's stockholders at which directors are to be elected. Such nomination is subject to the reasonable and good faith determination of a majority of the Issuer's disinterested directors, after consultation with the Issuer's outside legal counsel, that such individual is qualified to serve as a member of the Issuer's Board of Directors under any applicable law (including requirements of fiduciary duties under applicable law), rule or regulation, the rules of The Nasdaq Stock Market LLC or such other stock exchange on which the Issuer's shares are listed, the Issuer's bylaws and any policy or guidelines previously approved by the Issuer's Board of Directors.

The foregoing summary of the Nominating Agreement is not intended to be complete and is qualified in its entirety by reference to the full text of such document, which is filed as Exhibit 99.3 to this Schedule 13D and is incorporated herein by reference.

IPO Lock-Up Agreement

In connection with the Issuer's IPO, Mr. Lee and the Redmile Affiliates entered into a lock-up agreements (the "Lock-Up Agreement") with Jeffries LLC, Piper Jaffray & Co. and Stifel, Nicolaus & Company, Incorporated, as representatives of the underwriters. Pursuant to the terms of the Lock-Up Agreement, Mr. Lee and the Redmile Affiliates have agreed, subject to certain exceptions, during the period ending 180 days after September 17, 2019, not to:

- directly or indirectly sell, offer to sell, contract to sell or lend, effect any short sale or establish or increase a Put Equivalent Position or liquidate or decrease any Call Equivalent Position (as defined in Rule 16a-1(b) of the Exchange Act), pledge, hypothecate or grant any security interest in, or in any other way transfer or dispose of any shares of Common Stock or any options or warrants or other rights to acquire shares of Common Stock or any securities exchangeable or exercisable for or convertible into shares of Common Stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into shares of Common Stock owned as of the date of the Lock-Up Agreement or thereafter owned either of record or beneficially;
- enter into any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of shares of Common Stock or any options or warrants or other rights to acquire shares of Common Stock or any securities exchangeable or exercisable for or convertible into shares of Common Stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into shares of Common Stock, regardless of whether any such transaction is to be settled in securities, in cash or otherwise;
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any shares of Common Stock or any options or warrants or other rights to acquire shares of Common Stock or any securities exchangeable or exercisable for or convertible into shares of Common Stock, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into shares of Common Stock, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration; or
- publicly announce any intention to do any of the foregoing.

Mr. Lee's and the Redmile Affiliates' covenants under the Lock-Up Agreement do not apply with respect to the 3,144,000 shares of Common Stock purchased by the Redmile Affiliates in the Issuer's IPO.

The foregoing summary of the Lock-Up Agreement is not intended to be complete and is qualified in its entirety by reference to the full text of the form of Lock-Up Agreement, which is filed as Exhibit 99.4 to this Schedule 13D and is incorporated herein by reference.

Amended and Restated Certificate of Incorporation

The Amended and Restated Certificate of Incorporation, filed with the office of the Secretary of State of the State of Delaware on September 20, 2019, sets forth the rights, preferences, privileges, and restrictions applicable to the Non-Voting Common Stock. Certain of the material rights, preferences, privileges, and restrictions applicable to the Non-Voting Common Stock are described below.

Conversion. Each share of the Non-Voting Common Stock will initially be convertible into one share of voting Common Stock.

Voting Rights. Except as required by applicable law, the Non-Voting Common Stock has no voting rights.

Beneficial Ownership Limitation. The Issuer may not effect any conversion of the Non-Voting Common Stock, and a holder does not have the right to convert any portion of the Non-Voting Common Stock held by the holder, to the extent that, after giving effect to the attempted conversion set forth in a notice of conversion, such holder, together with such holder's affiliates and any other person whose beneficial ownership of Common Stock would be aggregated with such holder's for purposes of Section 13(d) of the Exchange Act and the applicable regulations of the SEC, including any "group" of which such holder is a member, would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation. The "Beneficial Ownership Limitation" shall initially be 4.99% of the shares of Common Stock then issued and outstanding, which percentage may be changed at a holder's election upon 61 days' notice to the Issuer.

The foregoing summary of the Amended and Restated Certificate of Incorporation is not intended to be complete and is qualified in its entirety by reference to the full text of such document, which is filed as Exhibit 99.5 to this Schedule 13D and is incorporated herein by reference.

Appointment of Michael Lee to the Board of Directors

On July 2, 2019, the Issuer's Board of Directors appointed Michael S. Lee, a managing director of Redmile, to serve as a director of the Issuer. Immediately prior to the Issuer's IPO, which was completed on September 20, 2019, Mr. Lee was appointed a Class III director to serve until the Issuer's 2022 Annual Meeting of Stockholders or until his successor has been duly elected and qualified, or until his earlier death, resignation or removal. In connection with Mr. Lee's appointment to the Issuer's Board of Directors, Mr. Lee and the Issuer entered into an Indemnification Agreement with the Issuer. On July 27, 2019, Mr. Lee and the Issuer entered into an Indemnification Agreement in the same form as the Issuer's standard form of indemnification agreement with its other directors.

In addition, Mr. Lee is entitled to cash and equity compensation pursuant to the Policy. Pursuant to the Policy, Mr. Lee is entitled to receive an annual cash retainer of \$20,000 to be paid quarterly, in arrears. If Mr. Lee serves on any committees of the Issuer's Board of Directors, he will be entitled to receive additional cash compensation. Under the Policy, non-employee directors receive \$5,000 annually for serving on the audit committee (\$10,000 annually for the chairperson), \$5,000 annually for serving on the compensation committee (\$10,000 annually for the chairperson), \$5,000 annually for serving on the nominating and corporate governance committee (\$10,000 annually for the chairperson) and \$5,000 annually for serving on the research and clinical development committee (\$10,000 annually for the chairperson). A non-employee director also receives \$20,000 annually for serving as the chairperson of the Issuer's Board of Directors.

On September 17, 2019, Mr. Lee received an option to purchase 12,100 shares of the Issuer's common stock at an exercise price of \$16.00. 1/3rd of the shares subject to the option will vest on September 17, 2020 and 1/36th of the shares subject to the option will vest on each monthly anniversary thereafter, subject to Mr. Lee's continued service on the Board of Directors of the Issuer through each vesting date. Pursuant to the Policy, Mr. Lee will also be entitled to receive an option to purchase 6,050 shares of the Issuer's common stock automatically at the same time the Issuer makes annual equity awards to the Issuer's executive officers, which option will vest in equal monthly installments during the twelve months following the date of the Issuer's first annual meeting of stockholders following the date of grant, and will vest in full on the earlier of the twelve-month anniversary of the date of the Issuer's first annual meeting of stockholders following the date of grant and the date of the Issuer's second regularly scheduled annual meeting of stockholders that next follows the date of grant, subject to Mr. Lee's continued service on the Board of Directors of the Issuer through each applicable vesting date.

Pursuant to the policies of Redmile, any stock options or other equity awards granted to Mr. Lee in connection with his service on the Issuer's Board of Directors will be held by him as a nominee on behalf, and for the sole benefit, of Redmile and Mr. Lee will assign all economic, pecuniary and voting rights in respect of any such equity awards to Redmile. Mr. Lee disclaims beneficial ownership of such securities, and the filing of this Schedule 13D shall not be deemed an admission that Mr. Lee is the beneficial owner of such securities for any purpose. The Reporting Persons disclaim beneficial ownership of all such securities except to the extent of their pecuniary interest therein, and this Schedule 13D shall not be deemed an admission that the Reporting Persons are the beneficial owner of such securities any purpose.

Pursuant to the policies of Redmile, all cash compensation that Mr. Lee receives in connection with his service on the Issuer's Board of Directors will be paid by the Issuer directly to Redmile.

Initial Public Offering

On September 20, 2019, the Redmile Affiliates purchased an aggregate of 3,144,000 shares of Common Stock at a price of \$16.00 per share in the Issuer's initial underwritten public offering. Redmile Group, LLC is the investment manager/adviser to each of the Redmile Affiliates and, in such capacity, exercises sole voting and investment power over all of the shares held by such vehicles and accounts and may be deemed to be the beneficial owner of these shares. Jeremy C. Green serves as the managing member of Redmile Group, LLC and also may be deemed to be the beneficial owner of these shares. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any.

Except as described above, no contracts, arrangements, understandings, or relationships (legal or otherwise) exist between any Reporting Person and any person with respect to any securities of the Issuer, including, but not limited to, transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, divisions of profits or loss, or the giving or withholding of proxies. Except as described above, none of the Reporting Persons is a party to any arrangement whereby securities of the Issuer are pledged or are otherwise subject to a contingency the occurrence of which would give another person voting power or investment power over such securities.

ITEM 7. Material to Be Filed as Exhibits.

| Exhibit Number | Description |
|-----------------------|--|
| Exhibit 99.1 | Joint Filing Agreement, dated as of September 24, 2019, between Redmile Group, LLC and Jeremy C. Green. |
| Exhibit 99.2 | Amended and Restated Investor Rights Agreement, by and among IGM Biosciences, Inc. and certain of its stockholders, dated as of June 28, 2019 (incorporated by reference to Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (File No. 333-233365) filed on August 19, 2019). |
| Exhibit 99.3 | Nominating Agreement, by and among IGM Biosciences, Inc., Redmile Biopharma Investments II, L.P., RAF, L.P. and Redmile Strategic Master Fund, LP, dated as of June 28, 2019 (incorporated by reference to Exhibit 10.17 to the Issuer's Registration Statement on Form S-1 (File No. 333-233365) filed on August 19, 2019). |
| Exhibit 99.4 | Form of Lock-Up Agreement (incorporated by reference to Exhibit A to Exhibit 1.1 to the Issuer's Registration Statement on Form S-1/A (File No. 333-233365) filed on August 19, 2019). |
| Exhibit 99.5 | Amended and Restated Certificate of Incorporation of IGM Biosciences, Inc., effective as of September 20, 2019 (incorporated by reference to Exhibit 3.1 to the Issuer's Form 8-K filed on September 20, 2019). |

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: September 24, 2019

REDMILE GROUP, LLC

/s/ Jeremy C. Green

Name: Jeremy C. Green

Title: Managing Member

Dated: September 24, 2019

/s/ Jeremy C. Green

JEREMY C. GREEN

Joint Filing Agreement

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the undersigned hereby agree to the joint filing on behalf of each of them of a Statement on Schedule 13D (including any and all amendments thereto, the “Schedule 13D”) relating to the common stock, \$0.01 par value per share, of IGM Biosciences, Inc., which may be deemed necessary pursuant to Regulation 13D or 13G promulgated under the Exchange Act.

The undersigned further agree that each party hereto is responsible for the timely filing of the Schedule 13D, and for the accuracy and completeness of the information concerning such party contained therein; provided, however, that no party is responsible for the accuracy or completeness of the information concerning any other party, unless such party knows or has a reason to believe that such information is inaccurate.

It is understood and agreed that a copy of this Joint Filing Agreement shall be attached as an exhibit to the Schedule 13D, filed on behalf of each of the parties hereto.

IN WITNESS WHEREOF, each of the undersigned has executed this Joint Filing Agreement as of the 24th day of September, 2019.

REDMILE GROUP, LLC

/s/ Jeremy C. Green

Name: Jeremy C. Green

Title: Managing Member

/s/ Jeremy C. Green

JEREMY C. GREEN
