

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

**FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ONCOMED PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

38-3572512
(IRS Employer
Identification No.)

**800 Chesapeake Drive
Redwood City, CA 94063**
(Address of Principal Executive Offices) (Zip Code)

**2013 Equity Incentive Award Plan
2013 Employee Stock Purchase Plan**
(Full title of the plan)

Paul J. Hastings
Chairman & Chief Executive Officer
OncoMed Pharmaceuticals, Inc.
800 Chesapeake Drive
Redwood City, CA 94063
(Name and address of agent for service)

(650) 995-8200
(Telephone number, including area code, of agent for service)

Copies to:

Alan C. Mendelson, Esq.
Mark V. Roeder, Esq.
Latham & Watkins LLP
140 Scott Drive
Menlo Park, CA 94025
(650) 328-4600

Dr. Alicia J. Hager, Esq.
Vice President, General Counsel
OncoMed Pharmaceuticals, Inc.
800 Chesapeake Drive
Redwood City, CA 94063
(650) 995-8200

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 Securities To Be Registered | Amount to be Registered(1) | Proposed Maximum Offering Price Per Share | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|-----------------------------------------|----------------------------------|----------------------------------------------------|----------------------------------------------------|-------------------------------|
| Common Stock, \$0.001 par value | 1,484,583(2) | \$7.58(3) | \$11,253,139.14 | |
| Common Stock, \$0.001 par value | 350,000(4) | \$7.58(3) | \$2,653,000.00 | |

| | | | | |
|--------|-----------|--|-----------------|---------|
| Total: | 1,834,583 | | \$13,906,139.14 | \$1,612 |
|--------|-----------|--|-----------------|---------|

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of the common stock of Oncomed Pharmaceuticals, Inc. (the "Registrant") that become issuable under the 2013 Equity Incentive Award Plan (the "2013 Plan") and the 2013 Employee Stock Purchase Plan (the "ESPP"), by reason of any stock dividend, stock split, recapitalization or similar transaction effected without the Registrant's receipt of consideration which would increase the number of outstanding shares of common stock.
- (2) Represents the additional shares of common stock available for future issuance under the Registrant's 2013 Plan resulting from an annual increase as of January 1, 2017.
- (3) This estimate is made pursuant to Rule 457(c) and Rule 457(h) of the Securities Act solely for purposes of calculating the registration fee. The Proposed Maximum Offering Price Per Share for shares available for future grant under the 2013 Plan and the ESPP is the average of the high and low prices for the registrant's common stock as reported on The NASDAQ Global Select Market on December 29, 2016, which is \$7.58.
- (4) Represents the additional shares of common stock available for future issuance under the Registrant's ESPP resulting from an annual increase as of January 1, 2017.

**Proposed sale to take place as soon after the effective date of the
registration statement as awards under the plans are granted, exercised and/or vest.**

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 1,834,583 shares of the Registrant's common stock issuable under the following employee benefit plans for which a Registration Statement of the Registrant on Form S-8 (File No. 333-190932) is effective: (i) the 2013 Equity Incentive Award Plan, as a result of the operation of an automatic annual increase provision therein, which added 1,484,583 shares of common stock, and (ii) the 2013 Employee Stock Purchase Plan, as a result of the operation of an automatic annual increase provision therein, which added 350,000 shares of common stock.

INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION STATEMENT ON FORM S-8

Pursuant to Instruction E of Form S-8, the contents of the Registration Statements on Form S-8 filed with the Securities and Exchange Commission on August 30, 2013 (File No. 333-190932), March 28, 2014 (File No. 333-194867), January 26, 2015 (File No. 333-201707) and March 10, 2016 (File No. 333-210081) are incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on this 3rd day of January, 2017.

ONCOMED PHARMACEUTICALS, INC.

By: /s/ Paul J. Hastings
Name: Paul J. Hastings
Title: Chairman & Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Paul J. Hastings, Sunil Patel and Alicia J. Hager, and each of them, as attorneys-in-fact, each with the power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and all documents in connection therewith, with the 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, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <u>/s/ Paul J. Hastings</u> Paul J. Hastings | Chairman, Chief Executive Officer and President (principal executive officer) | January 3, 2017 |
| <u>/s/ Sunil Patel</u> Sunil Patel | Chief Financial Officer, Senior Vice President, Corporate Development and Finance (principal financial and accounting officer) | January 3, 2017 |
| <u>/s/ Terry Gould</u> Elisha P. ("Terry") Gould III | Director | January 3, 2017 |
| <u>/s/ Perry A. Karsen</u> Perry A. Karsen | Director | January 3, 2017 |
| <u>/s/ Jack W. Lasersohn</u> Jack W. Lasersohn, J.D. | Director | January 3, 2017 |
| <u>/s/ Laurence Lasky</u> Laurence Lasky, Ph.D. | Director | January 3, 2017 |
| <u>/s/ Deepa R. Pakianathan</u> Deepa R. Pakianathan, Ph.D. | Director | January 3, 2017 |

| | | |
|--------------------------------------------------------------|----------|-----------------|
| <u>/s/ Denise Scots-Knight</u> Denise Scots-Knight, Ph.D. | Director | January 3, 2017 |
| <u>/s/ Jonathan D. Root</u> Jonathan D. Root, M.D. | Director | January 3, 2017 |
| <u>/s/ Rick E. Winningham</u> Rick E. Winningham | Director | January 3, 2017 |
| <u>/s/ Michael S. Wyzga</u> Michael S. Wyzga | Director | January 3, 2017 |

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description of Exhibits</u> |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | Amended and Restated Certificate of Incorporation of OncoMed Pharmaceuticals, Inc. (filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K on July 23, 2013 (File No. 001-35993) and incorporated herein by reference) |
| 4.2 | Amended and Restated Bylaws of OncoMed Pharmaceuticals, Inc. (filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K on July 23, 2013 (File No. 001-35993) and incorporated herein by reference) |
| 4.3 | Form of Common Stock Certificate (filed as Exhibit 4.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-181331), effective July 17, 2013, and incorporated herein by reference) |
| 5.1 | Opinion of Latham & Watkins LLP |
| 10.1 | OncoMed Pharmaceuticals, Inc. 2013 Equity Incentive Award Plan (filed as Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (File No. 333-181331), effective July 17, 2013, and incorporated herein by reference) |
| 10.2 | Form of Stock Option Agreement under the OncoMed Pharmaceuticals, Inc. 2013 Equity Incentive Award Plan (filed as Exhibit 10.7(B) to the Registrant's Registration Statement on Form S-1 (File No. 333-181331), effective July 17, 2013, and incorporated herein by reference) |
| 10.3 | Form of Restricted Stock Unit Award Agreement under the OncoMed Pharmaceuticals, Inc. 2013 Equity Incentive Award Plan (filed as Exhibit 10.3 to the Registrant's Registration Statement on Form S-8 (Registration No. 333-194867), effective March 28, 2014, and incorporated herein by reference) |
| 10.4 | OncoMed Pharmaceuticals, Inc. Employee Stock Purchase Plan (filed as Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 (File No. 333-181331), effective July 17, 2013, and incorporated herein by reference) |
| 23.1 | Consent of Latham & Watkins LLP (included in Exhibit 5.1) |
| 23.2 | Consent of Independent Registered Public Accounting Firm |
| 24.1 | Power of attorney (included in the signature page to this Registration Statement) |

LATHAM & WATKINS LLP

140 Scott Drive
 Menlo Park, California 94025
 Tel: +1.650.328.4600 Fax: +1.650.463.2600
 www.lw.com

January 3, 2017

OncoMed Pharmaceuticals, Inc.
 800 Chesapeake Drive
 Redwood City, CA 94063

FIRM / AFFILIATE OFFICES

| | |
|--------------|------------------|
| Barcelona | Moscow |
| Beijing | Munich |
| Boston | New York |
| Brussels | Orange County |
| Century City | Paris |
| Chicago | Riyadh |
| Dubai | Rome |
| Düsseldorf | San Diego |
| Frankfurt | San Francisco |
| Hamburg | Seoul |
| Hong Kong | Shanghai |
| Houston | Silicon Valley |
| London | Singapore |
| Los Angeles | Tokyo |
| Madrid | Washington, D.C. |
| Milan | |

Re: Registration Statement on Form S-8: 1,834,583 shares of Common Stock, par value \$0.001 per share

Ladies and Gentlemen:

We have acted as special counsel to OncoMed Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company of up to an aggregate of 1,834,583 shares of Common Stock of the Company, par value \$0.001 per share (the "Shares"), issuable under the Company's 2013 Equity Incentive Award Plan (the "2013 Plan") and the 2013 Employee Stock Purchase Plan (together with the 2013 Plan, the "Plans"). The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on January 3, 2017 (the "Registration Statement"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the related prospectus, other than as expressly stated herein with respect to the issuance of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Plans, assuming in each case that the individual issuances, grants or awards under the Plans are duly authorized by all necessary corporate action and duly issued, granted or

LATHAM & WATKINS LLP

awarded and exercised in accordance with the requirements of law and the applicable Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the issuance and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares in the General Corporation Law of the State of Delaware.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2013 Equity Incentive Award Plan and the 2013 Employee Stock Purchase Plan of OncoMed Pharmaceuticals, Inc. of our report dated March 10, 2016, with respect to the financial statements of OncoMed Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Redwood City, California
January 3, 2017