As filed with the Securities and Exchange Commission on July 24, 2015

Registration No. 333-___

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

FORM S-8

REGISTRATION STATEMENT UNDER **THE SECURITIES ACT OF 1933**

OPGEN, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

06-1614015 (I.R.S. Employer Identification No.)

708 Quince Orchard Road Gaithersburg, MD 20878 (Address of Principal Executive Offices)(Zip Code)

OPGEN, INC. 2008 STOCK OPTION AND RESTRICTED STOCK PLAN OPGEN, INC. 2015 EQUITY INCENTIVE PLAN (Full title of the plan)

Timothy C. Dec Chief Financial Officer 708 Quince Orchard Road Gaithersburg, MD 20878 (Name and address of agent for service)

(301) 869-9683 (Telephone number, including area code, of agent for service)

with a copy to:

Mary J. Mullany, Esquire **Ballard Spahr LLP** 1735 Market Street 51st Floor Philadelphia, Pennsylvania 19103 215-665-8500

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.

Large accelerated filer \Box Non-accelerated filer o (Do not check if a smaller reporting company) Accelerated filer \Box Smaller reporting company ⊠

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Number of Shares to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximur Aggregate Of Price	n	Amount of Registration Fee
Common Stock, par value \$0.01 per share, reserved for issuance pursuant to the OpGen, Inc.					
2015 Equity Incentive Plan	1,355,000 (2)	\$ 4.025 (4)	\$ 5,453,8	375.00 \$	633.74
Common Stock, par value \$0.01 per share, reserved for issuance pursuant to the OpGen, Inc. 2008 Stock Option and Restricted Stock Plan	1,230,772 (3)	\$ 4.025 (4)	\$ 4,953,8	357.30 \$	575.64
TOTAL	2,585,772	\$ 4.025 (4)	\$ 10,407,7	732.30 \$	1,209.38

(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended, or the Securities Act, this registration statement, or this Registration Statement, also covers an indeterminate number of additional shares of common stock issuable under the OpGen, Inc. 2008 Stock Option and Restricted Stock Plan (the "2008 Plan") or the OpGen, Inc. 2015 Equity Incentive Plan (the "2015 Plan") in the event the number of outstanding shares of the Registrant is increased by reason of any stock dividend, stock split, recapitalization, merger, consolidation or reorganization or similar transaction.

(2) Represents 1,355,000 shares of the Registrant's common stock reserved for issuance under the 2015 Plan. To the extent that any awards outstanding under the 2008 Plan expire or are forfeited subsequent to the date of this Registration Statement, the shares of the Registrant's common stock reserved for issuance pursuant to such awards will become available for issuance under the 2015 Plan. See footnote 3.

(3) Represents 1,230,772 shares of the Registrant's common stock reserved for issuance under the 2008 Plan. To the extent that any stock option awards outstanding under the 2008 Plan expire or are forfeited subsequent to the date of this Registration Statement, the shares of the Registrant's common stock reserved for issuance pursuant to such awards will become available for issuance under the 2015 Plan. See footnote 2.

(4) Estimated in accordance with Rule 457(h) solely for the purpose of calculating the registration fee on the basis of the average of the high and low prices reported for the common stock on the NASDAQ Capital Market on July 22, 2015.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

As permitted by the rules of the United States Securities and Exchange Commission, or the Commission, this Registration Statement omits the information specified in the instructions to Part I of Form S-8. Documents containing such information will be sent or given to participants in the employee benefit plans, as defined in Rule 405 under the Securities Act, covered by this Registration Statement as required by Rule 428(b)(1) under the Securities Act. Those documents are not being filed with the Commission as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. Those documents, and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The following documents, previously filed with the Commission, are hereby incorporated by reference into this Registration Statement:

- The Registrant's Prospectus, dated May 4, 2015, filed with the Commission on May 5, 2015, pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the "Securities Act"), relating to the Registration Statement on Form S-1, as amended (File No. 333-202478), which contains the Registrant's audited financial statements for the latest fiscal year for which such statements have been filed;
- The Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2015, filed with the Commission on June 18, 2015;
- The Registrant's Current Reports on Form 8-K, filed with the Commission on May 13, 2015 (Items 1.01, 5.03 and 9.01); on July 7, 2015 (Items 1.01 and 9.01), on July 13, 2015 (Items 1.01 and 9.01), on July 14, 2015 (Items 5.02, 7.01, 8.01 and 9.01), and on July 16, 2015 (Items 1.01, 2.01, 2.03, 3.02 and 9.01); and
- The description of the Registrant's common stock contained in the Company's Registration Statement on Form 8-A (File No. 001-37367) filed with the Commission on April 30, 2015, pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

In addition, all reports and other documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such document. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference. The statements required to be so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law, or the DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our certificate of incorporation and bylaws that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our bylaws provide that:

• we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and

• we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and executive officers. These agreements provide that we will indemnify each of our directors, such executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us and/or in furtherance of our rights. Additionally, each of our directors may have certain rights to indemnification, advancement of expenses and/or insurance provided by their affiliates, which indemnification relates to and might apply to the same proceedings arising out of such director's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors are primary and any obligation of the affiliates of those directors to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

The Exhibits to this Registration Statement are listed in the Exhibit Index below, which is incorporated herein by reference.

ITEM 9. UNDERTAKINGS.

(a) The undersigned Registrant hereby undertakes:

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

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

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

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

provided, however, that the undertakings set forth in paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if information required to be included in a posteffective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement;

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

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

(b) The undersigned Registrant hereby further undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act and, where applicable, each filing of the Plan's annual report pursuant to Section 15(d) under the Exchange Act, that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

(c) 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 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 issues.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Gaithersburg, State of Maryland on the 24th day of July, 2015.

OpGen, Inc.

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Evan Jones Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each undersigned director of OpGen, Inc. constitutes and appoints Timothy C. Dec and Evan Jones, and each of them, as the true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any or all amendments to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto said attorney-in-fact and agent 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 or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his 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(s)	Date
/s/ Evan Jones Evan Jones	Chief Executive Officer and a Director (principal executive officer)	July 24, 2015
/s/ Timothy C. Dec Timothy C. Dec	Chief Financial Officer (principal financial officer and principal accounting officer)	July 24, 2015
/s/ Brian G. Atwood Brian G. Atwood	Director	July 24, 2015
/s/ Timothy J.R. Harris Timothy J.R. Harris	Director	July 24, 2015
/s/ Timothy Howe Timothy Howe	Director	July 24, 2015
/s/ Laurence R. McCarthy Laurence R. McCarthy	Director	July 24, 2015
/s/ Misti Ushio Misti Ushio	Director	July 24, 2015

EXHIBIT INDEX

Exhibit <u>Number</u>	Description
5.1	Opinion of Ballard Spahr LLP (filed herewith).
10.1	2008 Stock Option and Restricted Stock Plan, including amendments thereto (Incorporated by reference to Exhibit 10.3 filed with the Registrant's Registration Statement on Form S-1 (Registration No. 333-202478), filed with the Commission on March 3, 2015).
10.2	2015 Equity Incentive Plan (Incorporated by reference to Exhibit 10.13 filed with Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-202478), filed with the Commission on April 6, 2015).
23.1	Consent of CohnReznick LLP (filed herewith).
23.2	Consent of Ballard Spahr LLP (contained in Exhibit 5.1).
24.1	Power of Attorney (on signature page).

5

Ballard Spahr

1735 Market Street, 51st Floor Philadelphia, PA 19103-7599 TEL 215.665.8500 FAX 215.864.8999 www.ballardspahr.com

July 24, 2015

OpGen, Inc. 708 Quince Orchard Road, Suite 160 Gaithersburg, MD 20878

Re: OpGen, Inc. - Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to OpGen, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-8 (the "Registration Statement"), relating to the registration under the Securities Act of 1933, as amended (the "Securities Act"), and the issuance of up to 2,585,772 shares of the Company's common stock, par value \$0.01 per share (the "Shares"), pursuant to the OpGen, Inc. 2008 Stock Option and Restricted Stock Plan (the "2008 Plan") or the OpGen, Inc. 2015 Equity Incentive Plan (the "2015 Plan" and, together with the 2008 Plan, the "Plans").

In rendering this opinion, we have reviewed the Plans and such certificates, documents, corporate records and other instruments and matters of law as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. In rendering this opinion, we are assuming the authenticity of all instruments presented to us as originals, the conformity with the originals of all instruments presented to us as copies and the genuineness of all signatures.

The opinion expressed below is based on the assumption that the Registration Statement has been filed by the Company with the U.S. Securities and Exchange Commission and will have become effective before any of the Shares are issued, and that persons acquiring the Shares will do so strictly in accordance with the terms of the Plans and will receive a prospectus containing all the information required by Part I of the Registration Statement before acquiring such Shares. The opinion is also based on the assumption that the Shares will continue to be duly and validly authorized on the dates that the Shares are issued to participants pursuant to the terms of the Plans and, upon the issuance of any of the Shares, the total number of shares of common stock of the Company issued and outstanding, after giving effect to such issuance of such Shares, will not exceed the total number of shares of common stock that the Company is then authorized to issue under its Amended and Restated Certificate of Incorporation.

Based on the foregoing, we are of the opinion that the Shares, when issued pursuant to the Plans in accordance with the terms and conditions thereof (including, where applicable, the payment of any exercise price, the satisfaction of any vesting or forfeiture restrictions and the achievement of applicable performance goals), will be legally issued, fully paid and non-assessable.

This opinion is limited to the matters expressly stated herein and no implied opinion may be inferred to extend this opinion beyond the matters expressly stated herein. This opinion is limited to the Federal law of the United States of America and to the laws of the State of Delaware.

We consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Securities Act.

Yours truly,

/s/ Ballard Spahr LLP

Atlanta | Baltimore | Bethesda | Denver | Las Vegas | Los Angeles | New Jersey | Philadelphia | Phoenix | Salt Lake City | San Diego Washington, DC | Wilmington | www.ballardspahr.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of OpGen, Inc. of our report, which includes an explanatory paragraph related to OpGen, Inc.'s ability to continue as a going concern, dated March 2, 2015, except for the effects of the matter discussed in the sixth paragraph of Note 15, which is as of March 20, 2015, and the matters discussed in the fourth, fifth, seventh, eighth and ninth paragraphs of Note 15, which are as of April 3, 2015, and the matters discussed in Note 2 and the tenth paragraph of Note 15, which are as of April 28, 2015, on our audits of the financial statements of OpGen, Inc. as of December 31, 2014 and 2013 and for the years then ended, which report is included in Amendment No. 6 to the Registration Statement on Form S-1 (333-202478) of OpGen, Inc.

/s/ CohnReznick LLP

Vienna, Virginia July 24, 2015