Registration No. 333-202478

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 8
TO
FORM S-1
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)

8071 (Primary Standard Industrial Classification Code Number)

06-1614015 (I.R.S. Employer Identification Number)

708 Quince Orchard Road, Suite 160 Gaithersburg, MD 20878 (240) 813-1260

 $(Address, including\ zip\ code, and\ telephone\ number,\ including\ area\ code,\ of\ registrant's\ principal\ executive\ offices)$

Evan Jones President and Chief Executive Officer 708 Quince Orchard Road, Suite 160 Gaithersburg, MD 20878 (301) 869-9683

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Mary J. Mullany, Esq. Ballard Spahr LLP 1735 Market Street 51st Floor Philadelphia, PA 19103 (215) 665-8500 Richard Baumann, Esq. Barry I. Grossman, Esq. Ellenoff Grossman & Schole LLP 1345 Avenue of the Americas New York, NY 10105 (212) 370-1300

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, as amended, check the following box. o

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

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

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. o

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 o Accelerated Filer o Non-Accelerated Filer o Smaller Reporting Company 🗵

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities Amount to be Proposed Maximum Proposed Maximum Amount of

to be Registered	Registered	Offering Price Per Security	Aggregate Offering Price(1)(2)	Registration Fee(3)
Units, each consisting of one share of common stock, par				
value \$0.01 per share and one warrant to purchase one share				
of common stock(4)(5)(7)	3,277,500	\$6.50	\$21,303,750.00	\$2,475.50
Common stock included in the units(4)(5)(7)	3,277,500			
Warrants included in the units(4)(5)(7)	3,277,500			
Shares of common stock underlying warrants included in				
units(4)(5)(7)	3,277,500	\$7.15	\$23,434,125.00	\$2,723.05
Underwriters' warrants(4)(5)(6)	213,038			
Shares of common stock underlying underwriters' warrants(4)				
(5)(6)	213,038	\$7.15	\$1,523,221.70	\$177.00
Total			\$46,261,096.70	\$5,375.55

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(a) under the Securities Act of 1933, as amended.
- (2) Includes the aggregate offering price of additional shares and/or underwriters' warrants which the underwriters have the option to purchase to cover over-allotments, if any.
- (3) The Registrant previously paid \$5,375.55 as a registration fee in connection with the initial filing of and previous amendments to this registration statement.
- (4) Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.
- (5) Assumes the underwriters' over-allotment option is fully exercised.
- (6) Represents warrants to purchase a number of shares of common stock equal to 6.5% of the shares to be sold in this offering, including those sold pursuant to the underwriters option to purchase to cover over-allotments, if any, and assuming a per share exercise price equal to 110% of the price per unit in this offering.
- (7) Includes up to 350,000 units to be issued in this offering upon tender of up to \$2.1 million of secured demand notes by existing stockholders.

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 or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Explanatory Note

The sole purpose of the filing of this Amendment No. 8 to the Registration Statement on Form S-1 (the "Registration Statement") of OpGen, Inc. is to file with the Commission the Sixth Amendment to the Lease of the Company's corporate facilities.

PART II

Information Not Required in Prospectus

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits:

The exhibits to the registration statement are listed in the Exhibit Index to this registration statement and are incorporated herein by reference.

(b) Financial Statements Schedules:

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto included elsewhere in this registration statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Gaithersburg, State of Maryland, on May 1, 2015.

OPGEN, INC.

By:	/s/ EVAN JONES
	Evan Jones
	President and Chief Executive Officer

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

	Signature	<u>Title</u>	<u>Date</u>
	/s/ EVAN JONES	President, Chief Executive Officer and Director (principal executive officer)	May 1, 2015
	Evan Jones	Director (principal executive officer)	
	/s/ TIMOTHY C. DEC	Chief Financial Officer (principal financial officer and principal accounting officer)	May 1, 2015
	Timothy C. Dec	officer and principal accounting officer)	
	*		
	Brian G. Atwood	Director	May 1, 2015
		<u></u>	
	Timothy J.R. Harris	Director	May , 2015
	*		
	Timothy Howe	Director	May 1, 2015
	*		
	Laurence R. McCarthy	Director	May 1, 2015
	*		
	Misti Ushio	Director	May 1, 2015
*By:	/s/ TIMOTHY C. DEC		
_	Timothy C. Dec Attorney-in-fact		
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EXHIBIT INDEX

Exhibit Number	Description
1.1**	Form of Underwriting Agreement.
3.1**	Ninth Amended and Restated Certificate of Incorporation of the Registrant, currently in effect.
3.1.1**	Certificate of Amendment to Certificate of Incorporation, amending the Ninth Amended and Restated Certificate of Incorporation of the Registrant, currently in effect.
3.1.2**	Form of Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the consummation of this offering.
3.2**	Amended and Restated Bylaws of the Registrant.
4.1**	Form of Common Stock Certificate of the Registrant.
4.2**	Third Amended and Restated Investors' Rights Agreement, dated as of December 18, 2013, among the Registrant and certain investors.
4.3**	Stockholders' Agreements Amendment, dated as of July 11, 2014, among the Registrant and certain investors.
4.4**	Second Stockholders' Agreements Amendment, dated as of February 7, 2015, among the Registrant and certain investors.
4.5**	Form of Warrant to Purchase Common Stock of the Registrant.
4.6**	Form of 2015 Warrant to Purchase Common Stock of the Registrant.
4.7**	Form of Underwriters' Warrant to Purchase Common Stock of the Registrant (included in Exhibit 1.1, Annex I).
4.8**	Form of Offered Warrant to Purchase Common Stock of the Registrant.
5.1**	Opinion of Ballard Spahr LLP.
10.1**	Lease Agreement, dated as of June 30, 2008, between the Registrant and ARE-708 Quince Orchard, LLC (the "Landlord").
10.1.1**	First Amendment to Lease, dated as of April 4, 2011, between the Registrant and the Landlord.
10.1.2**	Second Amendment to Lease, dated as of August 15, 2012, between the Registrant and the Landlord.
10.1.3**	Third Amendment to Lease, dated as of December 30, 2013, between the Registrant and the Landlord.
10.1.4**	Fourth Amendment to Lease, dated as of March 21, 2014, between the Registrant and the Landlord.
10.1.5**	Fifth Amendment to Lease, dated as of March 20, 2015, between the Registrant and the Landlord.
10.1.6	Sixth Amendment to Lease, dated as of April 30, 2015, between the Registrant and the Landlord.
10.2**	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.3**#	2008 Stock Option and Restricted Stock Plan of the Registrant, including amendments thereto.

Exhibit Number	Description
10.4**#	Amended and Restated Chief Executive Officer Letter Agreement, dated March 3, 2014, between the Registrant and Evan Jones.
10.5**#	Executive Change in Control and Severance Benefits Agreement, dated January 19, 2011, between the Registrant and C. Eric Winzer.
10.5.1**#	Amendment to Executive Change in Control and Severance Benefits Agreement, dated as of November 1, 2013, between the Registrant and C. Eric Winzer.
10.6**#	Executive Change in Control and Severance Benefits Agreement, dated January 27, 2012, between the Registrant and Vadim Sapiro.
10.6.1**#	Amendment to Executive Change in Control and Severance Benefits Agreement, dated as of November 1, 2013, between the Registrant and Vadim Sapiro.
10.7**±±	Technology Development Agreement, dated September 25, 2013, between the Registrant and Hitachi High-Technologies Corporation.
10.7.1**±	Amendment No. 1 to Technology Development Agreement, dated March 27, 2014, between the Registrant and Hitachi High-Technologies Corporation.
10.8**±	Supply Agreement, dated March 17, 2014, between the Registrant and Fluidigm Corporation.
10.9**	Notes Purchase Agreement, dated February 17, 2015, by and among the Registrant and the investors party thereto (including as Exhibit B the form of convertible note).
10.10**	Form of Amended and Restated Secured Convertible Promissory Note.
10.11**	Amended and Restated Intercreditor Agreement, dated as of February 17, 2015, by and among, the Registrant, Harris & Harris Group, Inc., as collateral agent, and each of the Secured Parties party thereto.
10.12**	Form of Security Agreement, by and among the Registrant, the Secured Parties party thereto and Harris & Harris Group, Inc., as collateral agent.
10.13**#	2015 Equity Incentive Plan
10.14**	Consulting Agreement, effective May 4, 2015, by and between the Registrant and C. Eric Winzer.
10.15**	Form of Secured Demand Note.
10.16**	Non-Employee Director Compensation Policy.
10.17**#	Executive Employment, Change in Control and Severance Agreements, dated April 17, 2015, by and between the Registrant and Kevin Krenitsky, M.D.
10.18**#	Employment Agreement, dated April 17, 2015, by and between the Registrant and Timothy C. Dec.
23.1**	Consent of CohnReznick LLP
23.2**	Consent of Ballard Spahr LLP (included in Exhibit 5.1).
24.1**	Power of Attorney.
24.2**	Substitution of Attorney-in-Fact Under Power of Attorney.

^{**} Previously filed.

[±] Confidential treatment has been requested for certain portions of this agreement pursuant to an application for confidential treatment filed with the Securities and Exchange Commission on March 3, 2015. Such provisions have been filed separately with the Commission.

- ±± Confidential treatment has been requested for certain portions of this agreement pursuant to a revised application for confidential treatment filed with the Securities and Exchange Commission on April 17, 2015. Such provisions have been filed separately with the Commission.
- # Management contract or compensatory arrangement.

QuickLinks

PART II Information Not Required in Prospectus

Item 16. Exhibits and Financial Statement Schedules.

SIGNATURES EXHIBIT INDEX

SIXTH AMENDMENT TO LEASE AGREEMENT (AND AMENDMENT TO REIMBURSEMENT AGREEMENT)

THIS SIXTH AMENDMENT TO LEASE AGREEMENT (AND AMENDMENT TO REIMBURSEMENT AGREEMENT) ("this Sixth Amendment") is dated as of April 30, 2015 ("Effective Date"), by and between ARE-708 QUINCE ORCHARD, LLC, a Delaware limited liability company, having an address at 385 E. Colorado Blvd., Suite 299, Pasadena, California 91101 ("Landlord"), and OPGEN, INC., a Delaware corporation, having an address at Suite 220, 708 Quince Orchard Road, Gaithersburg, Maryland 20878 ("Tenant").

RECITALS

- Landlord and Tenant have entered into that certain Lease Agreement ("Original Lease") dated as of June 30, 2008, as amended by a First Amendment to Lease dated as of April 4, 2011 ("First Amendment"), a Second Amendment to Lease Agreement dated as of August 15, 2012 ("Second Amendment"), a Third Amendment to Lease Agreement dated as of December 30, 2013 ("Third Amendment"), a Fourth Amendment to Lease Agreement dated as of March 21, 2014 ("Fourth Amendment"), and a Fifth Amendment to Lease Agreement dated as of March 20, 2015 ("Fifth Amendment"); the Original Lease, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, and the Fifth Amendment are hereinafter collectively referred to as the "Lease"), wherein Landlord leased to Tenant certain premises located at 708 Quince Orchard Road, Gaithersburg, Maryland 20878, as more particularly described in the Lease.
- Landlord and Tenant are parties to that certain letter agreement dated March 20, 2015 ("Reimbursement Agreement") providing for the reimbursement of certain expenses in the event that Tenant exercises the IPO Termination Option (defined in the Fifth Amendment).
- Landlord and Tenant desire to modify certain dates in the Fifth Amendment and the Reimbursement Agreement relating to (i) the delivery C. of the reconfigured Premises as more fully described in the Fifth Amendment and (ii) to modify the IPO Termination Date.

AGREEMENT

Now, therefore, the parties hereto agree that the Lease is amended as follows:

- Amendment to Section 4 of Fifth Amendment. As of the Effective Date, Section 4 of the Fifth Amendment is hereby amended by deleting that provision in its entirety and replacing it with the following new Section 4:
 - 4. Reconfiguration of Premises. Effective as of the earlier to occur of the substantial completion of the 2015 Landlord's Work (as defined below) and September 1, 2015 ("Delivery Date"), (a) Tenant shall surrender the Relinquished First Floor Premises and that portion of the Original Premises located on the second floor of the Building shown as the cross-hatched area on Exhibit A-2 attached hereto as the "Relinquished Second Floor Premises" (collectively, the "Relinquished Premises"), (b) the Premises shall be reconfigured and located exclusively on the second floor of the Building in the configuration shown on Exhibit A-3 attached hereto, and (c) Exhibit A attached to the Original Lease is hereby deleted and replaced with Exhibit A-3 attached hereto. Tenant shall so surrender full and complete possession of the Relinquished Premises to Landlord vacant, broom-clean, in good order and condition, and in accordance with the provisions of the Lease (including, but not limited to, Section 28), and thereafter the Relinquished Premises shall be free and clear of all leases, tenancies, and rights of occupancy of any entity claiming by, through, or under Tenant.



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- **Amendment to Section 5 of Fifth Amendment.** As of the Effective Date, Section 5 of the Fifth Amendment is hereby amended by deleting that provision in its entirety and replacing it with the following new Section 5:
 - **Changes to Basic Lease Provisions.**
 - a. Effective as of the Delivery Date, the following amendments are hereby made to the definitions contained in the Basic Lease Provisions:
 - (i) The defined term "**Premises**" shall be deleted in its entirety and replaced with the following:
 - That portion of the Project, containing approximately 18,931 rentable square feet, as determined by Landlord, located on the second floor of the Building as shown as the cross-hatched area on Exhibit A-3 to the Fifth Amendment to Lease Agreement ("Fifth Amendment") between Landlord and Tenant."
 - (ii) The defined term "Rentable Area of the Premises" shall mean approximately 18,931 rentable square feet.
 - b. Effective as of the Second Extension Term Commencement Date, notwithstanding anything to the contrary in the Lease, the defined term "Tenant's Share of Operating Expenses" shall mean 38.15%.
- Amendment to Section 6 of Fifth Amendment. As of the Effective Date, the 3 references in Section 6 of the Fifth Amendment to "Second Extension Term Commencement Date" are hereby deleted and replaced with "Delivery Date."
 - **Amendments to Section 45 of Lease.** As of the Effective Date, Section 45 of the Lease is hereby amended as follows:

- 4.1 The reference to "April 30, 2015" in the first sentence of Section 45(a)(i) is hereby amended by deleting that date and replacing it with "May 7, 2015."
- 4.2 The reference to "May 1, 2015" in Section 45(a)(iii) is hereby amended by deleting that date and replacing it with "May 8, 2015."
- 4.3 The first sentence of Section 45(b) is hereby deleted in its entirety and replaced with the following new replacement sentence:
 - (b) **IPO Extension Option**. Notwithstanding anything to the contrary contained in this Lease, in lieu of exercising the IPO Termination Option, Tenant shall have the right ("**IPO Extension Right**") to extend the Term for the period beginning May 8, 2015 to April 30, 2016 ("**IPO Extension Period**") in accordance with the following terms and conditions:
- 4.4 The phrase "During the IPO Extension Period" in the first sentence of Section 45(b)(iii) of the Lease is hereby amended by deleting the phrase and replacing it with "During the period commencing on May 1, 2015 and ending on the expiration of the IPO Extension Period."
- 4.5 The last sentence of Section 45(b)(iii) is hereby deleted in its entirety and replaced with

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the following new sentence:

For the period May 1, 2015 to May 31, 2015, Tenant shall pay Base Rent and Tenant's Share of Operating Expenses for the Relinquished Premises in amounts in effect as of April 30, 2015.

- 4.6 The reference in Section 45(b)(iv) to "May 1, 2015" is hereby deleted and replaced with "May 8, 2015."
- 4.7 The reference in Section 45(b)(vii) to "May 1, 2015" is hereby deleted and replaced with "May 8, 2015."
- 5. **Amendments to Reimbursement Agreement**. The reference in Section 1 of the Reimbursement Agreement to "April 30, 2015" is hereby deleted and replaced with "May 7, 2015".
 - 6. **Miscellaneous**.
 - 5.1 Terms used in this Sixth Amendment and not otherwise defined shall have the meanings ascribed to them in the Lease.
- 5.2 This Sixth Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Sixth Amendment may be amended only by an agreement in writing, signed by the parties hereto.
- 5.3 This Sixth Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective agents, employees, members, representatives, officers, divisions, subsidiaries, affiliates, assigns, heirs, successors in interest and shareholders.
- 5.4 This Sixth Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Sixth Amendment attached thereto.
- 5.5 Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "Broker") in connection with this Sixth Amendment and that no Broker brought about this transaction, other than Scheer Partners, Inc. ("SPI"). SPI shall be paid by Landlord pursuant to a separate agreement between Landlord and SPI. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker (other than SPI) claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this Sixth Amendment.
- 5.6 Except as amended and/or modified by this Sixth Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Sixth Amendment. In the event of any conflict between the provisions of this Sixth Amendment and the provisions of the Lease, the provisions of this Sixth Amendment shall prevail. Regardless of whether specifically amended by this Sixth Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Sixth Amendment.

[Signatures on Next Page]

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IN WITNESS WHEREOF, the parties hereto have executed this Sixth Amendment under seal as of the day and year first above written.

TENANT:

/s/ Timothy C. Dec (SEAL)

By: /s/ Timothy C. Dec
Name: Timothy C. Dec
Title: Chief Financial Officer

LANDLORD:

ARE-708 QUINCE ORCHARD, LLC,

a Delaware limited liability company

By: ARE-GP 708 Quince Orchard QRS CORP.,

a Maryland corporation, managing member

By: /s/ Gary Dean (SEAL)

Name: Gary Dean

Title: SVP — Real Estate Legal Affairs