UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

Under The Securities Act of 1933

Inogen, Inc. (Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization) 33-0989359

(I.R.S. Employer Identification No.)

326 Bollay Drive Goleta, California 93117

(Address of principal executive offices, including zip code)

Inogen, Inc. 2014 Equity Incentive Plan Inogen, Inc. 2014 Employee Stock Purchase Plan

(Full title of the plan)

Scott Wilkinson 326 Bollay Drive Goleta, California 93117 (805) 562-0500

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

Copies to:

Martin J. Waters Daniel R. Koeppen Wilson Sonsini Goodrich & Rosati, **Professional Corporation** 633 West Fifth Street, 15th Floor Los Angeles, CA 90071 Telephone: (323) 210-2900

Scott Wilkinson Alison Bauerlein Inogen, Inc. 326 Bollay Drive Goleta, California 93117 Telephone: (805) 562-0500

Facsimile:	(866) 974-7329	
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indicate by check mark whether the registrant is a large accelera-	ated filer, an accelerated filer, a non-accelerated fil	er, or a smaller reporting company.	See the definitions of "large accelerated filer,"
'accelerated filer" and "smaller reporting company" in Rule 12b-2 of			

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

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
	Amount	Maximum Offering	Maximum Aggregate	Amount of
Title of Securities to be Registered	to be Registered(1)	Price Per Share	Offering Price	Registration Fee
Common Stock, \$0.001 par value per share, reserved for				
issuance pursuant to the Inogen, Inc. 2014 Equity Incentive				
Plan	815,594(2)	\$69.07(4)	\$56,333,077.58	\$6,529.01
Common Stock, \$0.001 par value per share, reserved for				
issuance pursuant to the Inogen, Inc. 2014 Employee Stock				
Purchase Plan	179,069(3)	\$58.71(5)	\$10,513,140.99	\$1,218.48
TOTAL:	994,663		\$66,846,218.57	\$7,747.49

- Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Inogen, Inc. 2014 Equity Incentive Plan (the "2014 Plan"), and the Inogen, Inc. 2014 Employee Stock Purchase Plan (the "2014 ESPP"), by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.
- Represents 815,594 shares of common stock reserved for issuance pursuant to future awards as a result of the annual evergreen increase under the 2014 Plan
- Represents 179,069 shares of common stock reserved for issuance pursuant to future awards as a result of the annual evergreen increase under the 2014 ESPP.
- Estimated in accordance with Rule 457(h) solely for purposes of calculating the registration fee on the basis of \$69.07, the average of the high and low prices of the Registrant's common stock as reported on the NASDAQ Global Select Market on February 27, 2017. (4)
- Estimated in accordance with Rule 457(h) solely for the purpose of calculating the registration fee. Computation based upon 85% (see explanation in following sentence) of \$69.07, the average of the high and low prices of the Registrant's common stock as reported on the NASDAQ Global Select Market on February 27, 2017. Pursuant to the 2014 ESPP, the purchase price of the shares of common stock reserved for issuance thereunder will be 85% of the lower of the fair market value of the common stock on (i) the first trading day of the offering period or (ii) the exercise date.

INOGEN, INC.

REGISTRATION OF ADDITIONAL SECURITIES PURSUANT TO GENERAL INSTRUCTION E

This Registration Statement registers additional shares of the common stock of Inogen, Inc. (the "Registrant") to be issued pursuant to the Registrant's 2014 Equity Incentive Plan (the "2014 Plan") and 2014 Employee Stock Purchase Plan (the "2014 ESPP"). Accordingly, the contents of (i) the previous Registration Statement on Form S-8 filed by the Registrant with the Securities and Exchange Commission (the "Commission") on February 18, 2014 (File No. 333-194016), (ii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on May 4, 2015 (File No. 333-203842), and (iii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on March 14, 2016 (File No. 333-210175) (together, the "Previous Forms S-8") are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed with the Commission:

- (1) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the Commission on February 28, 2017;
- (2) All other reports filed with the Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), since the end of the fiscal year covered by the Registrant's Annual Report referred to in (1) above; and
- (3) The description of the Registrant's common stock contained in the Company's Registration Statement on Form 8-A (File No. 001-36309) filed with the Commission on February 10, 2014, pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided*, *however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. 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 subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information furnished under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 8. Exhibits.

Incomposato	d h.,	Dofor	
Incorporate	d bv	Refer	ence

Exhibit					
Number	Description	Form	File No.	Exhibit	Filing Date
4.1	Specimen common stock certificate of Registrant.	S-1/A	333-192605	4.1	1/16/14
4.2	2014 Equity Incentive Plan.	S-1/A	333-192605	10.6	1/28/14
4.3	Form Agreements under the 2014 Equity Incentive Plan.	S-1/A	333-192605	10.7	1/28/14
4.4	2014 Employee Stock Purchase Plan.	S-1/A	333-192605	10.8	1/28/14
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.				
23.1	Consent of Deloitte and Touche, LLP, Independent Registered				
	Public Accounting Firm.				
23.2	Consent of BDO USA, LLP, Independent Registered Public				
	Accounting Firm.				
23.3	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (contained				
	in Exhibit 5.1 hereto).				
24.1	Power of Attorney (contained on signature page hereto).				

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 Goleta, State of California, on March 1, 2017.

INOGEN, INC.

By: /s/ Scott Wilkinson

Scott Wilkinson

Chief Executive Officer, President and Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Scott Wilkinson and Alison Bauerlein, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities (including his or her capacity as a director and/or officer of Inogen, Inc.) to sign the Registration Statement on Form S-8 of Inogen, Inc., and any or all amendments (including post-effective amendments) thereto, and to file the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as they, he or she might or could do in person, hereby and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Scott Wilkinson Scott Wilkinson	Chief Executive Officer, President and Director (Principal Executive Officer)	March 1, 2017
/s/ Alison Bauerlein Alison Bauerlein	Chief Financial Officer (Principal Accounting and Financial Officer)	March 1, 2017
/s/ Heath Lukatch, Ph.D. Heath Lukatch, Ph.D.	Chairman of the Board	March 1, 2017
/s/ Raymond Huggenberger Raymond Huggenberger	Director	March 1, 2017
/s/ Benjamin Anderson-Ray Benjamin Anderson-Ray	Director	March 1, 2017
/s/ Heather Rider Heather Rider	Director	March 1, 2017
/s/ Loren McFarland Loren McFarland	Director	March 1, 2017
/s/ R. Scott Greer R. Scott Greer	Director	March 1, 2017
/s/ Scott A. Beardsley Scott A. Beardsley	Director	March 1, 2017

INDEX TO EXHIBITS

		Incorporated by Reference			
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5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.				
23.1	Consent of Deloitte and Touche, LLP, Independent Registered Public Accounting Firm.				
23.2	Consent of BDO USA, LLP, Independent Registered Public Accounting Firm.				
23.3	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (contained in Exhibit 5.1 hereto).				
24.1	Power of Attorney (contained on signature page hereto).				

OPINION OF WILSON SONSINI GOODRICH & ROSATI PROFESSIONAL CORPORATION

March 1, 2017

Inogen, Inc. 326 Bollay Drive Goleta, California 93117

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") to be filed by Inogen, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of up to 994,663 shares of the Company's common stock, par value \$0.001 per share ("Common Stock"), consisting of (i) 815,594 shares of Common Stock reserved for issuance pursuant to the Inogen, Inc. 2014 Equity Incentive Plan and (ii) 179,069 shares of Common Stock reserved for issuance pursuant to the Inogen, Inc. 2014 Employee Stock Purchase Plan (collectively, such plans are referred to herein as the "Plans" and such shares are referred to herein as the "Shares"). As your legal counsel, we have examined the proceedings taken and are familiar with the actions proposed to be taken by you in connection with the issuance and sale of the Shares under the Plans and pursuant to the agreements related thereto.

It is our opinion that, when issued and sold in the manner referred to in the Plans and pursuant to the agreements that accompany the Plans, the Shares will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati

WILSON SONSINI GOODRICH & ROSATI Professional Corporation

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our reports relating to the financial statements and financial statement schedule of Inogen, Inc. (the "Company") and the effectiveness of the Company's internal control over financial reporting dated February 28, 2017, appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

/s/ Deloitte & Touche LLP

Los Angeles, California March 1, 2017

Consent of Independent Registered Public Accounting Firm

Inogen, Inc. Goleta, California

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated April 26, 2015, relating to the financial statements and financial statement schedule of Inogen, Inc. ("Company") appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

/s/ BDO USA, LLP Los Angeles, California

March 1, 2017