Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

CAPNIA, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 77-0523891 (I.R.S. Employer Identification No.)

1235 Radio Road, Suite 110 Redwood City, CA 94065 (Address of principal executive offices, including zip code)

> 2014 Equity Incentive Plan 2014 Employee Stock Purchase Plan 2010 Stock Plan 1999 Stock Plan (Full title of the plan)

Anish Bhatnagar Chief Executive Officer Capnia, Inc. 1235 Radio Road, Suite 110 Redwood City, CA 94065 (650) 213-8444 (Name, address and telephone number, including area code, of agent for service)

Copies to:

Elton Satusky, Esq. Eric Hsu, Esq. Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304 (650) 493-9300

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 \Box

Non-accelerated filer \Box (Do not check if a smaller reporting company)

 Accelerated filer
 □

 Smaller reporting company
 ⊠

CALCULATION OF REGISTRATION FEE

Title of Compilies to be Devictored	Amount to be Bogistorod(1)	Proposed Maximum Offering Price Par Share	Proposed Maximum Aggregate Offering Price	Amount of Degistration Fee
Title of Securities to be Registered	Registered(1)	Per Share	Offering Price	Registration Fee

Common Stock, \$0.001 par value per share, reserved for issuance				
pursuant to the 2014 Equity Incentive Plan	831,480 (2)	\$1.185 (4)	\$985,303.80	\$99.22
Common Stock, \$0.001 par value per share, reserved for issuance				
pursuant to the 2014 Employee Stock Purchase Plan	207,870 (3)	\$1.007 (5)	\$209,325.09	\$21.08
TOTAL:			\$1,194,628.89	\$120.30

(1) 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 2014 Equity Incentive Plan (the "2014 Plan") and the 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.

(2) Represents automatic annual increases of 270,764 shares on January 1, 2015 and 560,716 shares on January 1, 2016 to the number of shares of the Registrant's common stock reserved for issuance under, and which annual increase is provided for in, the 2014 Plan.

(3) Represents automatic annual increases of 67,691 shares on January 1, 2015 and 140,179 shares on January 1, 2016 to the number of shares of the Registrant's common stock reserved for issuance under, and which annual increase is provided for in, the 2014 ESPP.

(4) Estimated in accordance with Rules 457(c) and 457(h) under the Securities Act, solely for the purpose of calculating the registration fee on the basis of \$1.185 per share, which represents the average of the high and low prices of the common stock as reported in The Nasdaq Capital Market on March 30, 2016.

(5) Estimated in accordance with Rule 457(c) and (h) of the Securities Act solely for the purpose of calculating the registration fee on the basis of \$1.007 per share, which represents 85% of the average of the high and low sale prices of the Registrant's common stock as reported on The Nasdaq Capital Market on March 30, 2016. Pursuant to the 2014 ESPP, which plan is incorporated by reference herein, the purchase price of the shares of the Registrant's common stock will be at least 85% of the lower of the fair market value of the Registrant's common stock on the first day of the offering period or on the exercise date.

PART I

INFORMATION REQUIRED IN THE PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (the "**Registration Statement**") in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "**Securities Act**"), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Capnia, Inc. (the "**Registrant**") hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the "**Commission**"):

- (1) The Company's Annual Report on Form 10-K for the year ended December 31, 2015 (the "**Annual Report**"), as filed with the SEC on March 25, 2016 pursuant to Sections 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**");
- (2) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Annual Report;
- (3) The description of the Registrant's Common Stock contained in the Company's Registration Statement on Form 8-A filed with the Commission on August 8, 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.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the issuance of the shares of the Registrant's common stock offered hereby has been passed upon by Wilson Sonsini Goodrich & Rosati, P.C. ("WSGR"). An investment fund associated with WSGR beneficially owns less than 1% of the Registrant's common stock.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the Registrant's amended and restated certificate of incorporation includes provisions that eliminate the personal liability of its directors for monetary damages for breach of their fiduciary duty as directors, excluding liability for any breach of the duty of loyalty.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, the amended and restated certificate of incorporation and amended and restated by laws of the Registrant provide that:

- The Registrant shall indemnify its directors and officers for serving the Registrant in those capacities or for serving other business enterprises at the Registrant's request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- The Registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law.
- The Registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that
 such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The Registrant will not be obligated pursuant to the amended and restated by laws to indemnify a person with respect to proceedings initiated by that person, except with respect to proceedings authorized by the Registrant's board of directors or brought to enforce a right to indemnification.
- The rights conferred in the amended and restated certificate of incorporation and amended and restated bylaws are not exclusive, and the Registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.
- The Registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

The Registrant has entered into separate indemnification agreements with each of its directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the Delaware General Corporation Law and also to provide for certain additional procedural protections. The Registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between the Registrant and its officers and directors may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

See also the undertakings set out in response to Item 9 herein.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

See Exhibit Index immediately following the Signature Pages.

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 posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the 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 a 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 the Registration Statement or any material change to such information in the Registration Statement.

Provided, however, that paragraphs (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic 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.
- (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 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 an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement 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.
- 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 issue.

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 Redwood City, California, on the 1st day of April 2016.

CAPNIA, INC.

By: /s/ Anish Bhatnagar Anish Bhatnagar

Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Anish Bhatnagar and David D. O'Toole, and each of them, as his true and lawful attorney-in-fact and agent with full power of substitution, for him in any and all capacities, to sign any and all amendments to this registration statement on Form S-8 (including post-effective amendments), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy and agent 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 he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ Anish Bhatnagar Anish Bhatnagar	Chief Executive Officer, President and Director (Principal Executive Officer)	April 1, 2016	
/s/ David D. O'Toole David D. O'Toole	Chief Financial Officer (Principal Accounting and Financial Officer)	April 1, 2016	
/s/ Emest Mario Emest Mario	Director	April 1, 2016	
/s/ Edgar G. Engleman Edgar G. Engleman	Director	April 1, 2016	
/s/ Steinar J. Engelsen Steinar J. Engelsen	Director	April 1, 2016	
/s/ Stephen Kimon Stephen Kimon	Director	April 1, 2016	
/s/ William G. Harris William G. Harris	Director	April 1, 2016	

INDEX TO EXHIBITS

Exhibit			Incorporated by Reference			
Number	Description	Form	File No.	Exhibit	Filing Date	
4.1	Form of the Registrant's common stock certificate	S-1/A	333-196635	4.1	08/05/2014	
4.2	2014 Equity Incentive Plan	S-1/A	333-196635	10.4	08/07/2014	
4.3	2014 Employee Stock Purchase Plan	S-1/A	333-196635	10.5	08/07/2014	

5.1 Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation

23.1 Consent of Marcum LLP, Independent Registered Public Accounting Firm

23.3 Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto)

24.1 Power of Attorney (contained on signature pages hereto)

Capnia, Inc. 1235 Radio Road, Suite 110 Redwood City, CA 94065

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 Capnia, Inc., a Delaware corporation, 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 (i) 831,480 shares of Common Stock reserved for issuance pursuant to the Capnia, Inc. 2014 Equity Incentive Plan and (ii) 207,870 shares of Common Stock reserved for issuance pursuant to the Capnia, Inc. 2014 Equity Incentive Plan and (ii) 207,870 shares of Common Stock reserved for issuance pursuant to the 2014 Employee Stock Purchase Plan (which plans are collectively referred to herein as the "Plans" and which shares of Common Stock are collectively referred to herein as the "Shares"). As your legal counsel, we have examined the proceedings taken and proposed to be taken in connection with the issuance, sale and payment of consideration for the Shares to be issued under the Plans.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when issued and sold in the manner referred to in the Plans and pursuant to the agreements that accompany the Plans, 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, WILSON SONSINI GOODRICH & ROSATI Professional Corporation

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Capnia, Inc. on Form S-8 of our report dated March 25, 2016, with respect to our audits of the consolidated financial statements of Capnia, Inc. as of December 31, 2015 and 2014 and for the years ended December 31, 2015 and 2014 appearing in the Annual Report on Form 10-K of Capnia, Inc. for the year ended December 31, 2015.

/s/ Marcum LLP

New York, NY April 1, 2016