

PROSPECTUS SUPPLEMENT NO. 4
(to Prospectus dated January 5, 2016)

8,216,217 Shares



Common Stock

This Prospectus Supplement No. 4 supplements the prospectus dated January 5, 2016 or the prospectus that forms a part of our Registration Statement on Form S-1 (Registration Statement No. 333-208109). This prospectus supplement is being filed to update, amend and supplement the information included or incorporated by reference in the prospectus with the information contained in our Current Report on Form 8-K filed with the Securities and Exchange Commission on March 31, 2016 (the “Current Report”). Accordingly, we have attached the Current Report to this prospectus supplement.

The prospectus and this prospectus supplement relate to the disposition from time to time by the selling stockholders identified in the prospectus, or their permitted transferees or other successors-in-interest, of an aggregate of 8,216,217 shares of our common stock, which are issuable upon the conversion of shares of our Series A convertible preferred stock or the exercise of Series D Common Stock Purchase warrants to purchase our common stock. We are not selling any common stock under the prospectus and this prospectus supplement, and will not receive any of the proceeds from the sale of shares by the selling stockholders.

This prospectus supplement should be read in conjunction with the prospectus, which is to be delivered with this prospectus supplement. This prospectus supplement updates, amends and supplements the information included or incorporated by reference in the prospectus. If there is any inconsistency between the information in the prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Our common stock is traded on the NASDAQ Capital Market under the symbol “CAPN.” The last reported sale price of our common stock on The NASDAQ Capital Market on March 30, 2016 was \$1.19 per share.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page 8 of the prospectus, and under similar headings in any amendments or supplements to the prospectus, and “Part II — Item 1A — Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is March 31, 2016

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 28, 2016

Capnia, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-36593
(Commission
File No.)

77-0523891
(IRS Employer
Identification Number)

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

(650) 213-8444
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Resignation of Director

On March 28, 2016, William James Alexander resigned as a member of the Board of Directors (the “Board”) of Capnia, Inc. (“Capnia” or the “Company”). The decision of Mr. Alexander to resign is not the result of any disagreement with the Company on any matter relating to its operations, policies or practices. The Company greatly appreciates the contributions Mr. Alexander has made to Capnia.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CAPNIA, INC.

Date: March 31, 2016

By: /s/ David O'Toole

David O'Toole

Senior Vice President, Chief Financial Officer