PROSPECTUS SUPPLEMENT NO. 1 (to Prospectus dated January 5, 2016)

8,216,217 Shares

Common Stock

This Prospectus Supplement No. 1 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 January 6, 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 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 January 5, 2016 was \$1.81 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 Quarterly Report on Form 10-Q for the quarter ended September 30, 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 January 6, 2016

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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): January 6, 2016

CAPNIA, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-36593 (Commission File No.)

1235 Radio Road, Suite 110 Redwood City, CA 94065 (Address of principal executive offices) 77-0523891 (IRS Employer Identification Number)

(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:

□ 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))

D Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

On January 6, 2016, Capnia, Inc. announced that Otho Boone was promoted to Vice President and General Manager of Neonatology. Mr. Boone, who founded NeoForce, which the Company acquired in September of 2015, has over 25 years of neonatology medical device sales, operations and product development experience.

On January 6, 2016, Edward Ebbers, Senior Vice President, Chief Commercial Officer, ceased to be an employee of the Company effective immediately. Mr. Ebbers will be eligible for severance payments pursuant to the Employment Agreement dated March 30, 2015, between the Company and Mr. Ebbers, subject to entry into a separation agreement and a release of claims. During his severance period Mr. Ebbers has agreed to be available for consultation to assist in the transition of his responsibilities, which are being assumed by Mr. Boone.

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: January 6, 2016

By: /s/ David D. O'Toole

David D. O'Toole Chief Financial Officer