

November 7, 2014

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, DC 20549

Attn: Amanda Ravitz  
Daniel Morris  
Jeanne Bennett  
Brian Cascio

**Re: Capnia, Inc.**  
**Amendment No. 10 to Registration Statement on Form S-1**  
**Filed November 4, 2014**  
**File No. 333-196635**

Ladies and Gentlemen:

On behalf of Capnia, Inc. (the “**Company**”), we submit this letter in response to comments from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) received by letter dated November 6, 2014 relating to the Company’s Amendment No. 10 to Registration Statement on Form S-1 (File No. 333-196635) filed with the Commission on November 4, 2014 (the “**Registration Statement**”). The Company has also revised the Registration Statement in response to the Staff’s comments and is filing concurrently with this letter a revised Registration Statement (the “**Revised Registration Statement**”) which reflects these revisions and updates and clarifies certain other information.

In this letter, we have recited the comments from the Staff in italicized type and have followed each comment with the Company’s response. Capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Registration Statement. Except as otherwise specifically indicated, page references herein correspond to the page of the Revised Registration Statement. References to “we,” “our” or “us” mean the Company or its advisors, as the context may require.

**A significant number of our shares...., page 49**

*1. Your revised disclosure indicates that the number of shares issuable upon exercise of the Series B Warrant could be “significantly in excess” of the 1,550,000 common shares that initially underlie these warrants. Accordingly, please revise your risk factor disclosure to explain the extent of the potential dilution to your common stock that could result from Series B warrant exercises during the period when the “Further Cashless Exercise” feature is applicable. With reference to your disclosure on page 142, please also revise the risk factor to explain that the exercise price would be discounted to the prevailing market price of your common stock. Discuss the negative impact to your stock price that could result from discounted exercises and sales of a significant number of your common shares. Please also revise your Summary disclosure to highlight these risks.*

**RESPONSE TO COMMENT 1:** The Company acknowledges the Staff's comment and has revised pages 5, 49, 50, and 51 of the Revised Registration Statement, including augmented risk factor disclosures.

**Capitalization, page 58**

2. Please revise to disclose the nature of the Series B Warrant liability and explain how you determined the amount. Please also provide us with a reconciliation of the pro forma and pro forma as adjusted total stockholders' equity amounts on page 58.

**RESPONSE TO COMMENT 2:** The Company acknowledges the Staff's comment and has revised page 60 of the Revised Registration Statement to disclose the nature of the Series B Warrant liability and explain how it determined the amount. The Company also advises the Staff further as set forth below:

*Nature of the Series B warrant liability*

A derivative is a special type of contract that derives its value from the performance of an underlying entity. ASC 815 (formerly FAS 133) establishes accounting and reporting standards for derivative instruments. As provided under ASC 815 and the associated guidance, an instrument or embedded feature in an instrument held by a reporting entity will be considered indexed to its own stock for the purpose of determining treatment as a derivative liability if its settlement amount will equal the difference between (a) the fair value of a fixed number of the entity's equity shares and, (b) a fixed monetary amount or a fixed amount of a debt instrument issued by the entity. As the number of the Company's shares to be issued upon exercise of the Series B warrants is variable as the stock price decreases, the value of the series B warrants are treated as a derivative liability.

*How was the amount of derivative liability determined?*

We determined the liability amount by combining three components: (a) the value of the warrants without the cashless exercise provisions, (b) the probability-weighted average value of each warrant share under various scenarios in which the cashless exercise provision would apply, and (c) the probability-weighted average value of additional shares of common stock for which the warrants might be exercised in the event that our common stock traded at a value below the offering price. We believe that this reflects a reasonable approximation of the value that might be derived by significantly more complex valuation methodologies, and offered advantages of simplicity and transparency.

Component (a): The Company engaged an independent third party valuation firm to perform a Black Scholes calculation, based on the simplified assumption that the Series B Warrants did not have a cashless exercise provision. The model was run assuming \$6.50 cash exercise

price, 15 month duration, certain calculated volatility based on a basket of comparable companies as used previously in our 409(a) analyses, stock price, and other required variables of a Black-Scholes model. See below for calculations. Per this analysis, we determined the value of component (a) to be \$0.38.

Component (b): The Company engaged an independent third party valuation firm to perform a series of Black-Scholes calculations, based on decreasing stock prices and a cashless exercise price. The company made the following adjustments to determine the component of value attributed to this step:

1. Warrant holders have very little incentive to exercise their warrants at stock prices between \$6.50 and \$4.24, as they would receive fewer shares by opting for cashless exercise than the amount of warrants that they hold. Although there is value (taken into account in component (c)) as the stock decreases, more value accrues to warrant holders as the stock approaches \$4.24. It is only at a stock price of \$4.24 that warrant holders receive one-for-one stock to warrants. Based on a review of comparable companies and their corresponding stock prices over a 15 month period, the Company determined the probability of the stock decreasing to \$5.00 to be 68%. However, the Company adjusted this 68% by 75% to take into consideration the disincentive of warrant holders to actually exercise these warrants at this price and the discount for lack of marketability (DLOM), and the fact that approximately 75% of the stock will be held by insiders who will also be less likely to exercise warrants at this price. Hence, the Company has probability weighted the likelihood of the value under the Black Scholes model at a stock prices of \$5.00 to be 17%.
2. The Series B warrants expire after 15 months. The Company reviewed comparable medical device and diagnostic companies with recent IPOs and their stock price over a 15 month period. Based on this data, the Company determined the probability of the Company's Common Stock decreasing to \$4.00, \$3.00 and 2.00, to be 30.9%, 15.9% and 6.7%, respectively. These percentages were used to probability-weight the values determined under the Black Scholes models with stock prices of \$4.00, \$3.00 and \$2.00.
3. The Company then calculated an average of the values determined under step 1 and 2. This yielded a value for component (b) of \$0.67.

Component (c): The Company determined the number of shares that would be issued under a decreasing stock price, the cashless exercise and the adjustments required under the description above of the Series B warrants. The Company also determined the dollar value of each additional share to be issued in a series of scenarios, with stock prices ranging from \$6.49 to down to \$0.25. The Company reviewed comparable companies and the increase/decrease over the 15 month period. Based on this data, the Company determined percentage probabilities for each scenario of assumed decreased stock price. For example, the Company assumed that there was a 100% chance of the Common Stock being priced at the issue price of \$6.49 and less than 6.7% chance of the stock decreasing to \$2.00. The Company then determined a probability-weighted average for these scenarios, with the result being a value of component (c) of \$0.63.

The Company determined the value of the Series B warrants as the sum of the values of the 3 components outlined above, as follows:

*Value of B Warrants to be treated as derivative liability*

<b>Estimated value of B warrants</b>			
Step 1		\$0.38	
Step 2		\$0.67	
Step 3		\$0.63	
Value of Series B Warrant		<u>\$1.68</u>	
Series B Warrants issued with IPO units	1,550,000	\$1.68	\$2,604,000
B Warrants issued for 2014 Convertible Notes			
April Tranche	385,425	\$1.68	\$ 647,514
August Tranche	54,874	\$1.68	\$ 92,188
October Tranche	105,536	\$1.68	\$ 177,300
			<u>\$3,521,003</u>

*Reconciliation of the pro forma and pro forma as adjusted total stockholder's equity*

Pro-forma total stockholders' equity		1,168
Increase in common shares issued and outstanding		2
Net IPO proceeds		7,595
Proceeds from convertible notes issued in August and October 2014		727
Value of Series B warrants treated as derivative liabilities		(3,521)
Capitalization of deferred offering costs		(681)
Pro-forma as-adjusted total stockholders' equity		<u>5,290</u>

**Series A Warrants and Series B Warrants Issued as Part of the Units, page 141**

3. Please revise your disclosure in the final paragraph on page 142 to clarify how to calculate the number of shares exercisable between months four and fifteen. Please also illustrate how many shares could be issued based on specific decreases to the market price of your shares.

**RESPONSE TO COMMENT 3:** The Company acknowledges the Staff's comment and has revised pages 145 and 146 of the Revised Registration Statement to clarify how to calculate the number

of shares exercisable between months four and fifteen, and to illustrate how many shares could be issued based on specific decreases to the market price of our common shares.

*4. We note that you seek to register one common share underlying each Series B warrant and, as such, it appears that the registration statement would not cover all of the shares potentially issuable pursuant to the Further Cashless Exercise provision contained in section 3.3.3. To the extent that holders could receive exercised shares that are not freely tradable, please revise your disclosures here and in the Summary to highlight limitations on holders' ability to sell their securities. Please also disclose the beneficial ownership limitations contained in section 3.4 of the Series B Warrant Agreement.*

**RESPONSE TO COMMENT 4:** The Company acknowledges the Staff's comment and has revised pages 5, 51, and 146 of the Revised Registration Statement to disclose that holders could receive exercised shares that are not freely tradable, add the limitations on holders' ability to sell their securities, and add the beneficial ownership limitations contained in section 3.4 of the Series B Warrant Agreement.

Please direct your questions or comments regarding this letter or the Revised Registration Statement to the undersigned or Elton Satusky at (650) 996-4063. Thank you for your assistance.

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI  
Professional Corporation

/s/ Elton Satusky

Elton Satusky

cc: Anish Bhatnagar  
3 Twin Dolphin Drive, Suite 160  
Redwood City, CA 94065

Michael Danaher  
Elton Satusky  
Wilson Sonsini Goodrich & Rosati  
650 Page Mill Rd. Road  
Palo Alto, CA 94304