

February 11, 2014

VIA EDGAR AND COURIER

Russell Mancuso  
Branch Chief  
United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F St NE  
Mail Stop 3030  
Washington, D.C. 20549

Re: **Inogen, Inc.**  
**Amendment No. 4 to Registration Statement on Form S-1**  
**Filed February 4, 2014**  
**File No. 333-192605**

Dear Mr. Mancuso:

This letter responds to the letter of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"), dated February 11, 2014, to Alison Bauerlein, Chief Financial Officer of Inogen, Inc. (the "Company"), regarding the Amendment No. 4 to Registration Statement on Form S-1, File No. 333-192605 (the "Registration Statement"), filed by the Company on February 4, 2014.

This letter sets forth the comment of the Staff in the comment letter (numbered in accordance with the comment letter) and, following each comment, the Company's response. Following the filing of this letter, the Company will submit via EDGAR Amendment No. 5 to the Registration Statement, responding to the Staff's comments.

Dilution, page 52

**1. We note mathematical errors in the calculation of dilution. This includes, but is not limited to, the impact of increasing and decreasing by 1,000,000 shares the number of shares included in the offering on pro forma as adjusted net tangible book value per share and on the dilution per share experienced by investors if 1,000,000 less shares were included in the offering. Please amend the filing prior to requesting effectiveness to correct these mathematical errors.**

Response: The Company respectfully acknowledges the Staff's comment and has revised its disclosure on pages 52 and 53 of the Registration Statement.

Principal and selling stockholders, page 155

**2. Refer to the last sentence of prior comment 5. It remains unclear from your disclosure which of the shares mentioned in the footnotes are being offered by the selling stockholders. For example, is Novo A/S offering the shares previously held or the shares underlying the warrants? If it is offering the shares underlying the warrants, when will it acquire those shares, and what is the exercise price? Please clarify.**

Response: The Company respectfully acknowledges the Staff's comment and advises the Staff that no stockholders will be simultaneously exercising warrants and selling shares in connection with the offering. The Company has revised its disclosure on page 157 and 158 to disclose which shares are being offered by the selling stockholders. For example, with respect to Novo A/S the Company has revised the disclosure in footnote 1 on page 157 to state that the shares offered by Novo A/S in the offering consist of shares of common stock and series B, C, D, E, F, and G preferred stock that will convert to common stock in connection with the offering. Such shares were acquired in private placements or pursuant to warrant exercises on or before March 2012. The shares offered by Novo A/S are being sold pro rata across the certificates held by them. The Company has revised the disclosure on pages 157 and 158 to include similar information regarding the shares offered by the other selling stockholders.

**3. Please expand your response to prior comment 5 to tell us whether any of the selling stockholders are broker-dealers or affiliates of broker dealers. For each selling stockholder that is an affiliate of a broker-dealer, please disclose, if true, that:**

- **the selling stockholder purchased the offered shares in the ordinary course of business and,**
- **at the time of the purchase of the securities to be resold, the seller had no agreements or understandings, directly or indirectly, with any person to distribute the securities.**

Response: The Company respectfully acknowledges the Staff's comment and advises the Staff that no selling stockholders are broker-dealers or affiliates of broker dealers. The Company has revised its disclosure on page 155 to disclose that no selling stockholders are broker-dealers or affiliates of broker-dealers.

**4. Please reconcile the total number of shares being offered by the selling shareholders as disclosed in the table on page 156 with the information on your prospectus cover.**

Response: The Company respectfully acknowledges the Staff's comment and has revised its disclosure on page 156 of the Registration Statement to reflect the redistribution of 1,070 shares among certain of the selling stockholders.

\* \* \*

If you require any additional information on these issues, or if we can provide you with any other information that will facilitate your continued review of this filing, please advise us at your earliest convenience. You may reach me at (858) 350-2393 or Martin J. Waters at (858) 350-2308.

Sincerely,

WILSON SONSINI GOODRICH & ROSATI  
Professional Corporation

/s/ Daniel R. Koeppen

Daniel R. Koeppen

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Russell Mancuso, Branch Chief  
United States Securities and Exchange Commission  
February 11, 2014  
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cc: Alison Bauerlein, Inogen, Inc.  
Raymond Huggenberger, Inogen, Inc.  
Martin J. Waters, Wilson Sonsini Goodrich & Rosati, P.C.  
B. Shayne Kennedy, Latham & Watkins LLP  
Timothy Clackett, BDO USA LLP  
Scott Hammon, Macias Gini & O'Connell LLP