

November 21, 2014

**VIA EDGAR AND FEDERAL EXPRESS**

Division of Corporation Finance  
United States Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549  
Attention: Jeffrey P. Riedler

**Re: Inotek Pharmaceuticals Corporation  
Registration Statement on Form S-1  
Filed November 5, 2014  
File No. 333-199859**

Ladies and Gentlemen:

This letter is submitted on behalf of Inotek Pharmaceuticals Corporation (the "**Company**") in response to the November 18, 2014 comment letter (the "**Comment Letter**") of the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") regarding the Company's Registration Statement on Form S-1 which was filed with the Commission on November 5, 2014 (the "**Registration Statement**").

Concurrently with this letter, the Company is also submitting to the Commission the Amendment No. 1 to Registration Statement on Form S-1 (the "**Amendment**"), which includes changes to reflect responses to the Staff's comments.

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. For your convenience, we have italicized the reproduced Staff comments from the Comment Letter. Unless otherwise indicated, page references in the descriptions of the Staff's comments refer to the Registration Statement, and page references in the responses refer to the Amendment. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Amendment.

The responses provided herein are based upon information provided to Goodwin Procter LLP by the Company. In addition to submitting this letter via EDGAR, we are sending via Federal Express two (2) copies of each of this letter and the Amendment (marked to show changes from the Registration Statement).

**Capitalization, page 62**

1. *Please expand your pro forma disclosures throughout the filing to explain why assuming that the concurrent offering of notes is factually supportable. Refer to rule 11-02(b)(6) of Regulation S-X.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 11, 12, 62 and 63 of the Amendment.

**7. Equity**

**2014 Stock Option and Incentive Plan, page F-24**

2. *We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.*

Response: In response to the Staff's comment, the Company respectfully advises the Staff that it is supplementally providing the Staff with a letter containing an estimated offering price range and an analysis explaining the reasons for the differences between recent valuations of the Company's common stock leading up to the IPO and the estimated offering price range.

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We and the Company appreciate the Staff's attention to the review of the Amendment. Please do not hesitate to contact me at: (212) 813-8853 if you have any questions regarding this letter or the Amendment.

Sincerely,

/s/ Edwin M. O'Connor

Edwin M. O'Connor

Goodwin Procter LLP

cc: David P. Southwell, President and Chief Executive Officer, *Inotek Pharmaceuticals Corporation*  
Mitchell S. Bloom, *Goodwin Procter LLP*