

November 4, 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
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted September 29, 2014
CIK No. 0001281895**

Ladies and Gentlemen:

This letter is submitted on behalf of Inotek Pharmaceuticals Corporation (the "**Company**") in response to the October 14, 2014 comment letter (the "**Comment Letter**") of the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") regarding the Company's Amendment No. 1 to the Draft Registration Statement on Form S-1 which was submitted to the Commission confidentially on September 29, 2014 (the "**Draft Registration Statement**").

Concurrently with this letter, the Company is also submitting to the Commission the Registration Statement on Form S-1 (the "**Registration Statement**") for public filing, 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 Draft Registration Statement, and page references in the responses refer to the Registration Statement. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Registration Statement.

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 Registration Statement (marked to show changes from the Draft Registration Statement).

Use of Proceeds, page 56

1. *We note your response to our prior comment 6 and reissue the comment. Please revise your use of proceeds disclosure to discuss how far proceeds from the offering will allow you to progress towards the uses you have identified. For example, if you do not expect your current funds along with proceeds from this offering to allow you to complete both Phase 3 trials for trabodenoson monotherapy, you should provide an estimate of what the application of these proceeds will allow you to accomplish as to each partially funded Phase 3 trial. Likewise, you should discuss how far towards completion of the Phase 2 trials for FDC product candidate the offering proceeds and your current funds will allow you to progress. You may, as necessary, provide additional disclosure that advises investors of the particular factors and assumptions that form the basis of your estimates including any uncertainty surrounding the estimates and the reasons that the actual use of proceeds could vary. Please make any necessary conforming changes to your Prospectus Summary as well.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 59-60 of the Registration Statement.

Directors and Executive Officers, page 115

2. *Please revise your disclosure to describe Mr. Ritter's specific business experience during the past five years as required by Item 401(e)(1) of Regulation S-K.*

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 125-126 of the Registration Statement to describe Mr. Ritter's specific business experience during the past five years.

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

Sincerely,

Edwin M. O'Connor

/s/ 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*