



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

October 14, 2014

Via E-mail

David P. Southwell
President and Chief Executive Officer
Inotek Pharmaceuticals Corporation
131 Hartwell Avenue, Suite 105
Lexington, MA 02421

**Re: Inotek Pharmaceuticals Corporation
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted September 29, 2014
CIK No. 0001281895**

Dear Mr. Southwell:

We have reviewed your amended confidential draft registration statement and have the following additional comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended confidential draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended confidential draft registration statement or filed registration statement, we may have additional comments.

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

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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.

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.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at <http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm>.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (<http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm>). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Scott Wuenschell at (202) 551-3705 or Joel Parker at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Austin Stephenson at (202) 551-3192, Bryan Pitko at (202) 551-3203, or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Bryan J. Pitko for

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Mitchell S. Bloom, Esq.
Goodwin Procter LLP