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

DIVISION OF
CORPORATION FINANCE

August 12, 2013

Via E-mail
David R. Guyer, M.D.
Chief Executive Officer
Ophthotech Corporation
One Penn Plaza, 35th Floor
New York, New York 10119

Re: Ophthotech Corporation
Draft Registration Statement on Form S-1
Submitted July 15, 2013
File No. 377-00247

Dear Dr. Guyer:

We have reviewed your draft registration statement and have the following 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 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 draft registration statement or filed registration statement, we may have additional comments.

General

1. We note that you have submitted an application for confidential treatment relating to certain of your exhibits. Please be advised that comments to this application, if any, will be sent under separate cover and that any such comments must be resolved prior to your requesting effectiveness of your registration statement.

2. Please confirm that the graphics included in your registration statement are the only graphics you will use in your prospectus. If those are not the only graphics, please provide any additional graphics prior to their use for our review.

3. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

Prospectus summary
Our Company Overview, page 1

4. In this summary, please describe in greater detail the background of your product candidates, particularly Fovista. In particular, you should note that you did not develop Fovista or ARC1905 internally but acquired rights to these products through your agreements with OSI (Eyetech), Inc. and Archemix Corp. Please also clarify here and wherever else appropriate the extent to which your executive officers were involved in the development of Fovista during their employment at OSI (Eyetech), Inc.

Risks Associated with Our Business, page 4

5. Please include in this list the material risk stemming from your reliance on your royalty purchase agreement with Novo A/S, the obligations placed on you by this agreement and the possibility that a default by you might result in Novo A/S foreclosing on your intellectual property relating to Fovista.

6. In your first bullet point, please include a reference to your milestone payment obligations to OSI (Eyetech), Inc., Archemix Corp, and Nektar Therapeutics relating to Fovista.

Industry and Other Data, page 5

7. Please remove your statement that you have not independently verified industry and market data from third-party sources. It is not appropriate to directly or indirectly disclaim liability for information in the registration statement.

Risk Factors
"We will need substantial additional funding . . .," page 11

8. Please include in this risk factor an estimate of the amount of funds you believe you will need to complete your Phase 3 clinical trials as well as the amount you believe you will require for working capital and other general corporate purposes during this period.

"If clinical trials of Fovista or any other product candidate that we develop fail to demonstrate safety and efficacy to the satisfaction of the FDA . . .," page 14

9. Please state in this risk factor that the combination of 0.3 mg and Lucentis did not achieve statistically significant superiority compared to Lucentis monotherapy.

"If serious adverse or unacceptable side effects are identified during the development of Fovista or any other product candidate that we develop . . .," page 17

10. Please include in this risk factor a summary of the safety data gathered from the Fovista clinical trials performed to date, including the adverse events experienced among the clinical population.

"Third parties may initiate legal proceedings alleging that we are infringing or otherwise violating their intellectual property rights . . .," page 32

11. Please include in this risk factor examples of any such litigation that has been filed against you or any of your founders, executive officers, and/or directors.

"We may be subject to claims by third parties that we or our employees have misappropriated their intellectual property . . .," page 32

12. Please include in this risk factor examples of any such claims made against your employees.

"We will incur increased costs as a result of operating as a public company . . .," page 43

13. Please include in this risk factor, to the extent practicable, an estimate of the annual costs associated with being a public company.

Use of Proceeds, page 46

14. Please expand the discussion to indicate the stage of development you anticipate the allocation of proceeds will enable you to attain for ARC1905.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Share-Based Compensation
Fair Market Value Estimates, page 60

15. Please revise your table of stock options to aggregate the stock option grants by month or quarter.

16. Please confirm that no other stock options have been granted that have not already been disclosed and update that confirmation through the date the filing goes effective.

17. Please revise your disclosure to present the intrinsic value of outstanding vested and unvested options as of the most recent balance sheet date based on the estimated IPO price.

Valuations, page 61

18. We may have additional comments on your accounting for stock compensation and related disclosure once you have disclosed an estimated offering price. Please provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of each equity issuance.

Business
Potential for Fovista, page 72

19. Please explain for the benefit of the lay reader what "(p=0.019)" represents or, alternatively, remove this from your disclosure.

Principal Stockholders, page 132

20. Please indicate the individual(s) who has voting and/or investment power over the shares held by Clarus Lifesciences II, L.P.

Shares eligible for future sale
Lock-up agreements, page 135

21. Please file a copy of the form lock-agreement as an exhibit to your registration statement. If it is to be filed as an exhibit to your underwriting agreement, please confirm this for us.

Notes to Financial Statements
5. Financing Activities, page F-10

22. You disclose that you concluded that rights for shares in redeemable instruments represent free-standing financial instruments and should be accounted for as liabilities. It appears as though all investor rights have been exercised. Please add disclosure to the paragraph discussing the application of ASC 480 to clarify, if true, that there are currently no rights outstanding.

23. Please disclose how the closing of the public offering will impact the accounting for and classification of the preferred stock warrants.

24. Please revise your disclosure to clarify the events that would trigger adjustments to the number of shares to be received upon exercise of the warrants.

6. Product and Technology Agreements
License Agreements, page F-13

25. Please expand your disclosures to include the term and termination provisions for your agreements with OSI (Eyetech), Archemix and Nektar Therapeutics.

26. Please revise your disclosure to include the amount of upfront licensing fees paid in connection with the amended agreement with Archemix similar to your disclosure on page 103.

14. Fair Value Measurements
Level 3 Valuation, page F-26

27. You disclose that the fair value of the warrant liability was estimated using a hybrid method between a PWERM model and an option pricing model. You disclose the significant assumptions used in preparing the option pricing model. Please expand your disclosures to include the additional assumptions that were used in the hybrid method to estimate the fair value of the warrant liability. For example, if applicable, disclose the probability weight that was assigned to each expected outcome.

28. Please expand your disclosures to explain why the ranges are so large for the assumptions used in preparing the option pricing model. For example, the volatility assumption for the Series A preferred shares as of December 31, 2012 was 47.2% - 85.3%.

16. Subsequent Events, page F-27

29. Please tell us how you have accounted for the cash proceeds received of $41,666,667 in connection with the sale of the royalty entitlement including whether this will be recorded as revenue or deferred revenue. Reference for us the authoritative literature you relied upon to support your accounting.

Notes to Unaudited Financial Statements
4. Fair Value Measurements
Level 3 Valuations, page F-36

30. Please revise your disclosure to quantify the assumptions used to determine the fair value of the warrant liability as of March 31, 2013.

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 Vanessa Robertson at (202) 551-3649 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383, John Krug at (202) 551-3862 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: David E. Redlick, Esq.
Brian A. Johnson, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
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New York, New York 10007