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

DIVISION OF
CORPORATION FINANCE

June 10, 2014

Via E-mail
Daniel Tassé
Chief Executive Officer
Bellerophon Therapeutics LLC
Perryville III Corporate Park
53 Frontage Road, Suite 301
Hampton, New Jersey 08827

Re: Bellerophon Therapeutics LLC
Draft Registration Statement on Form S-1
Submitted May 14, 2014
CIK No. 0001600132

Dear Mr. Tassé:

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 there are a number of additional exhibits that still need to be filed. Please provide these exhibits as promptly as possible. Please note that we may have comments on these materials once they are provided.

2. We have received your application for confidential treatment for portions of information contained in your exhibits. Any staff comments to your application will be sent separately from comments to your draft registration statement.

3. 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.

4. We note your graphic in the beginning of your prospectus which shows engineering CAD illustrations of your INOpulse Mark2 device, triple-lumen cannula and nosepiece detail. Please provide a disclaimer for this graphic which states that the products shown are depictions of potential prototypes and actual models commercially available do not currently exist.

5. 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 so 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 Product Candidates
INOpulse, page 1

6. Please define the following terms at their first reference in your prospectus:

   - "triple-lumen nasal cannula;"
   - "orphan disease;"
   - "orphan drug designation;"
   - "Class III device;" and
   - "premarket approval, or PMA, regulatory pathway."

7. Please briefly describe the purpose of the DS device and the Mark2 device when you first discuss them in this section.

BCM, page 3

8. We note your disclosure on page 90 that you are developing BCM in the United States under an investigational device exemption ("IDE"). Please describe when the IDE for BCM was granted, identify the sponsor and the subject of the IDE application. If an IDE application was not filed pertaining to your clinical trials for BCM, explain why an IDE application was not required.

Risk Factors, page 5

9. Please expand your risk factor discussion under the seventh bullet point to briefly describe the concerns raised by BioLine and the alleged breaches under your agreement with BioLine.

10. In the last bullet point, please briefly describe the exemptions from certain corporate governance requirements that you may rely on as a controlled company.

Risk Factors
Risks Related to Our Business and Industry
The ownership by certain of our executive officers and directors of shares…, page 15

11. Please expand the discussion to identify your officers and directors who are also officers or directors of Ikaria and the positions they hold at each company.

Risks Related to the Discovery, Development and Commercialization of Our Product Candidates
We are transitioning our INOpulse delivery system to a next generation…, page 21

12. Based on your disclosure in this risk factor and on page 83 in the section entitled "INOpulse Drug Device Combination," we note the FDA has required you to show that the amount and timing of inhaled nitric oxide delivery is similar across INOpulse device generations, and therefore, you have developed a regulatory bridging strategy to meet these requirements. Please expand your disclosure in this risk factor and on page 83 to describe your "regulatory bridging strategy" and how it will help you meet the FDA requirements.

Risks Related to Our Intellectual Property
If we are unable to obtain and maintain patent protection for our technology…, page 36

13. Please expand your disclosure in the second paragraph of this risk factor to specify under which agreements you do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that you license from third parties.

14. Please expand your risk factor discussion to highlight the current expected expiration dates for the patents underlying INOpulse and BCM.

If we fail to comply with out obligations under license agreements, we could…, page 38

15. We note that as part of your risk factor discussion, you have provided a description of your obligations under your license agreement with BioLine. Please expand your disclosure to also discuss your obligation under your license agreement with Ikaria.

Risks Related to Employee Matters and Managing Growth
Our future success depends on our ability to retain key executives and to…, page 46

16. Please expand your risk factor disclosure to identify your key executive officers and other key employees.

17. We note the second paragraph of this risk factor which states that you currently have an interim chief executive officer. Accordingly, please revise the "Management" section of your prospectus to identify Mr. Daniel Tassé as your interim chief executive officer.

Special Note Regarding Forward-Looking Statements and Industry Data

18. Please note that it is not appropriate to state or imply that you do not have liability for the statements in your registration statement. Your statements on page 55 that you "have not independently verified" industry publications and third-party research, surveys and studies could imply that you are not taking liability for these items and the data included in your registration statement. In order to eliminate any inference that you are not liable for all of the information in your registration statement, please delete these statements or include a statement specifically acknowledging responsibility for the accuracy of these statements and potential liability under the federal securities laws.

Use of Proceeds, page 56

19. To the extent practicable, please disclose how far in the Phase 3 clinical development of INOpulse for PAH you estimate the funds allocated to such development will enable you to reach.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Research and Development Expenses, page 66

20. Please disclose the research and development expenses incurred from inception to date for each of your three clinical development programs.

Business
INOpulse for Pulmonary Arterial Hypertension
Clinical Development Program, page 86

21. Please disclose whether any Phase 1 clinical trials for INOpulse for PAH were conducted and if so, please expand your disclosure to describe these trials, including the number of patients enrolled, the dosages used, the primary and secondary endpoints, the results of the trials, how the primary and secondary endpoints compared to actual results, and any serious adverse events observed during the trials.

INOpulse for PH-COPD
Clinical Development Program, page 88

22. Please disclose whether any Phase 1 clinical trials for INOpulse for PH-COPD were conducted and if so, please expand your disclosure to describe these trials, including the number of patients enrolled, the dosages used, the primary and secondary endpoints, the

results of the trials, how the primary and secondary endpoints compared to actual results, and any serious adverse events observed during the trials.

BCM for Prevention of Cardiac Remodeling following AMI
Clinical Development Program, page 90

23. Please expand your disclosure regarding BioLine's pilot clinical trials for BCM to describe the dosages used, to quantify the results of the trial, to show how these results compared to the REVE study results, and to describe any serious adverse events observed during the trial.

24. Please disclose the significance of the REVE study and why the results of the pilot clinical trial for BCM were compared to the study.

Patents and Proprietary Rights
INOpulse, page 98

25. We note that you hold exclusive licenses from Ikaria to a broad portfolio of "about" a dozen families of issued and pending patent applications in both the United States and in certain other countries. Please revise your disclosure to provide the exact number of patents and pending patent applications.

26. Please expand your disclosure for your INOpulse patents and patent applications to disclose the "certain other countries" where you have issued patents or pending patent applications.

27. For each category of patents and patent applications discussed in this section, please revise your disclosure to provide the number of patents and patent applications in each category and their related expiration dates in the United States and any other countries where patents have been issued or are pending.

BCM

28. Please expand your disclosure for your BCM patents and patent applications to disclose the foreign countries where such patents have been issued or have applications pending.

29. We note that you provide the expiration dates for some of your composition of matter patents for BCM. Please expand your disclosure to provide the expiration dates for all of your BCM patents and patent applications, both composition of matter and method of treatment. In doing so, please provide the expiration dates in the United States and any foreign countries separately.

30. Please revise your disclosure to describe the jurisdiction in which your patents or patent applications directed to methods of manufacturing for BCM have been granted or are pending.

31. We note that you provide the expiration date for your patent applications for patents directed to methods of manufacturing. Please expand your disclosure to provide the expiration dates of your issued patents which you in license from BioLine. In doing so, please provide the expiration dates in the Unites States and any foreign countries separately. Also, please provide the expiration dates of your Unites States patent applications separately from any foreign applications.

Management, page 121

32. Please provide Mr. Howard Pien's background from 2009 to 2014.

Principal Stockholders, page 144

33. Please expand your disclosure in footnote four of the beneficial ownership table to disclose the natural person with voting or investment control over the securities owned by Venrock.

Lock-up Agreements, page 155

34. Please confirm that the lock-up agreement will be filed as part of the underwriting agreement. If not, please file the form of lock-up agreement as an exhibit.

Index to Financial Statements
General

35. Please tell us why you have not categorized the financial statements as combined as it appears the entity was a component of a larger entity.

Balance Sheet, page F-1

36. Please tell us why you present deficit accumulated during the development stage and investment by Ikaria, Inc. separately rather than showing the residual interest as a single component, such as parent's equity in division.

Notes to Financial Statements
(15) Unaudited Pro Forma Balance Sheet, page F-21

37. Please tell us why you do not provide a pro forma statement of operations for the most recent fiscal year. If a limited number of pro forma adjustments are required and those adjustments are easily understood, please provide a narrative description of the pro forma

effects of the transaction, or indicate that there are no adjustments to be made. Refer to Rule 11-02 of Regulation S-X and SAB Topic 1.B.2.

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 Tabatha McCullom at (202) 551-3658 or Joel Parker at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Johnny Gharib at (202) 551-3170, John Krug at (202) 551-3862 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ *Daniel Greenspan for*

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Lia Der Marderosian, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP