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

DIVISION OF
CORPORATION FINANCE

December 4, 2013

Via E-mail
Abbie C. Celniker, Ph.D.
President and Chief Executive Officer
Eleven Biotherapeutics, Inc.
215 First Street, Suite 400
Cambridge, MA 02142

Re: Eleven Biotherapeutics, Inc.
Draft Registration Statement on Form S-1
Submitted November 7, 2013
CIK No. 0001485003

Dear Dr. Celniker:

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 note that you intend to seek confidential treatment for several of your exhibits. Please note that comments on your confidential treatment request will be sent under separate cover.

3. Please confirm that the graphics included in your draft 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. 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.

5. Please define the terms "in vitro" and "in vivo" the first time you use them and in the sixth paragraph of the section entitled "Competition" when you discuss the FDA issued draft bioequivalence guidance regarding Restasis.

Summary
Company Overview, page 1

6. You reference a "separate clinical trial conducted by your scientific founder using another IL-1 receptor antagonist" in the third paragraph of this section. Please revise your disclosure to identify this clinical trial.

Our Approach
EB-005 – a Novel IL-1 Receptor Antagonist

7. We note your lack of disclosure regarding INDs related to EBI-005. Please disclose the date of filing, the filer and the indications covered by any EBI-005-related IND. If an IND has not been filed yet for EBI-005, please provide appropriate disclosure explaining why no IND has been filed.

Risk Factors

8. Please include an appropriately titled risk factor discussing your ability to use your net operating loss carryforwards and your federal and state research and development tax credit carryforwards. In doing so, please quantify the amount of your net operating loss carryforwards and tax credit carryforwards and provide the expiration dates for the carryforwards in the risk factor.

Risks Related to Our Financial Position and Need For Additional Capital
We will need substantial additional funding. If we are unable to raise capital…, page 12

9. Please disclose the amount of your cash and cash equivalents in the third paragraph of this risk factor when you discuss how long these funds along with the proceeds of this offering will enable you to fund your business.

Risks Related to the Commercialization of Our Product Candidates
Even if EBI-005 or any other product candidate that we develop receives…, page 20

10. We note that your statement, "Our estimates of the potential market opportunity for EBI-005 include several key assumptions based on our industry knowledge, industry publications, third-party research reports and other surveys." Please expand your disclosure in this risk factor to discuss these "key assumptions."

Risks Related to Our Common Stock and This Offering
We are an "emerging growth company," and the reduced disclosure requirements…, page 43

11. We note your disclosure in this risk factor and in the section entitled "Emerging Growth Company Status" on page 68 that you have elected to not delay the adoption of new accounting standards. Please expand your disclosure in both sections to state that your election is irrevocable.

Business
Proof of Concept Clinical Trial with Anakinra, an IL-1 Blocker, page 83

12. Please expand your disclosure in this section to provide the two different doses of anakinra that were used during the proof of concept clinical trial.

13. We note that you subsequently conducted additional, retrospective analysis of the individual questions of the OSDI and observed a statistically significant improvement from baseline in pain and discomfort. Please expand your disclosure to describe the additional, retrospective analysis that was done on the OSDI data. Similarly please expand your disclosure under the section entitled "Completed Phase 1b/2a Clinical Trial in Dry Eye Disease" to describe the additional, retrospective analyses that were done in that trial.

Planned Pivotal Phase 3 Clinical Program of EBI-005 for the Treatment of Dry Eye Disease
Planned Phase 3 Clinical Trial Endpoints, page 85

14. Please define the term "immunogenicity" the first time you use it in the second paragraph of this section.

Intellectual Property, page 102

15. We note the list of your 19 material patent applications which you own or in-license. Please revise your disclosure to specify which patent applications you own and which ones are in-licensed. For the ones that are in-licensed, please disclose from whom you in-license these applications. Also, please specify for which U.S. patent applications you have foreign counterparts, and disclose the foreign jurisdictions where these counterparts are located and their anticipated expiration dates.

Transactions with Related Persons
Indemnification Agreements, page 133

16. Please file the indemnification agreements, or form of agreement, with your directors and executive officers as exhibits.

Shares Eligible For Future Sale
Lock-Up Agreements, page 143

17. Please file the lock-up agreements as exhibits.

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 James Peklenk at (202) 551-3661 or Andrew Mew at (202) 551-3377 if you have questions regarding the financial statements and related matters. Please contact Johnny Gharib at (202) 551-3170 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

Via E-mail
David Redlick, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
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Boston, Massachusetts 02109