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

DIVISION OF
CORPORATION FINANCE

April 15, 2015

Via E-mail
Ted W. Love, M.D.
President and Chief Executive Officer
Global Blood Therapeutics, Inc.
400 East Jamie Court, Suite 101
South San Francisco, California 94080

Re: Global Blood Therapeutics, Inc.
Draft Registration Statement on Form S-1
Submitted March 19, 2015
CIK No. 0001629137

Dear Dr. Love:

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.

Prospectus Summary

1. Please define "kallikrein" and "angioedema" at their first use in this section.

Our Development Pipeline, page 3

2. You indicate that GBT440 is in pre-clinical development for infants and children with sickle cell disease and for other sickle cell disease genotypes and phenotypes. However, we note that your prospectus does not otherwise include a discussion of your pre-clinical work or your plans to advance the product candidate for these indications. Please revise your disclosure to expand on the development of GBT440 for pediatric patients and other sickle cell disease genotypes and phenotypes.

3. For your product candidates that are still in ongoing preclinical trials, please revise your pipeline table to shorten the progress bar so that it does not extend to the end of the preclinical stage column.

Risk Factors
We are heavily dependent on the success of our lead product candidate . . . , page 13

4. We note your disclosure in this risk factor that you have not selected any product candidates, other than GBT440, "for preclinical or clinical evaluation." However, your pipeline table on pages 3 and 68 indicates that your oral kallikrein inhibitor is in preclinical development. Please revise your disclosure to resolve this apparent discrepancy.

Use of Proceeds, page 47

5. In the first bullet point, to the extent practicable please break out the proceeds among your ongoing and contemplated trials, particularly the amount you anticipate devoting to your current trial of GBT440. In addition, please provide specific estimates of how far you expect the offering proceeds will enable you to advance each of your development programs. For example, you should indicate whether you expect the proceeds of the offering will allow you to fund the Phase 1/2 clinical trial of GBT440 to completion.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Estimates
Determination of the fair value of common stock on grant dates, page 54

6. Please disclose the specific methods that management used to determine the fair value of your common stock at each valuation date and the nature of the material assumptions involved. For example, if you use the income approach you should disclose that this method involves estimating future cash flows and discounting those cash flows at an appropriate rate.

7. We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

Business
Our Development Pipeline
Ongoing Phase 1/2 Clinical Trial of GBT440, page 74

8. Please disclose the location of your Phase 1/2 clinical trial of GBT440, the amount of patients enrolled to date, the status of the trial, and the expected completion date.

9. Please disclose whether you have filed an Investigational New Drug (IND) application for this indication. If no IND was filed, please tell us why.

Intellectual Property, page 77

10. We note your disclosure regarding your patents and patent applications. For each of your patent portfolios, please provide expected expiration dates for your patent applications in each of (1) the U.S. and (2) foreign jurisdictions, as a group.

Employment Agreements, page 109

11. Please file your letter agreement with Willie L. Brown, Jr. as an exhibit to the registration as required by Item 601(b)(10) of Regulation S-K.

Other

12. Please submit all outstanding exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

13. Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

14. 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.

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 Mary Mast at (202) 551-3613 or Joel Parker at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Alla Berenshteyn at (202) 551-4325, Dan Greenspan at (202) 551-3623 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

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