



DIVISION OF
CORPORATION FINANCE

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

August 11, 2017

Krish S. Krishnan
Chief Executive Officer
Krystal Biotech, Inc.
2100 Wharton Street, Suite 701
Pittsburgh, PA 15203

**Re: Krystal Biotech, Inc.
Draft Registration Statement on Form S-1
Submitted July 17, 2017
CIK No. 0001711279**

Dear Mr. Krishnan:

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.

DRS S-1 Submitted 7/17/17

Prospectus Summary
Overview, page 1

1. Please clarify the meaning of any significant scientific or technical terms the first time they are used in order to ensure that lay readers will understand the disclosure. For example, please briefly explain what you mean by "ichthyosis," "ichthyosis vulgaris," "non-integrating nature," and "skin tropism resulting in high transduction efficiencies." Please also explain how existing regulatory precedent and stability are considered strengths of your gene therapy platform.

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2. We note your reference to key opinion leaders, including specific references to Dr. Peter Marinkovich and Dr. Andrew South. Please revise your disclosure to explain how often, and the manner in which, the KOLs are involved in your business. Please also clarify whether you compensate the KOLs.

Risks Associated with our Business, page 3

3. We note your disclosure that KB103 is based on novel technology. Please place your disclosure in appropriate context by disclosing that the U.S. Food and Drug Administration has not approved any human gene therapy product for marketing to date.

Implications of Being an Emerging Growth Company, page 4

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.

Management's Discussion and Analysis of Financial Condition and Operations
Critical Accounting Policies and Significant Judgments and Estimates
Stock Based Compensation, page 55

5. Once you have an estimated offering price or range, please explain to us how you determined the fair value of the common stock underlying your equity issuances and the reasons for any differences between the recent valuations of your common stock leading up to the IPO and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation and beneficial conversion features.

Business

Our Lead Product Candidate: KB-103 for the treatment of DEB, page 77

6. Please revise your disclosure under "Preclinical Proof of Concept for KB103" to indicate the dates on which you conducted the preclinical tests. Please also tell us whether the examples shown represent results that were achieved consistently in the preclinical tests. In the figures shown on page 76, please tell us how you measured the amount of COL7 expression and what you determined to be "high levels" of expression.
7. Please revise the charts on page 77 so that it is clear what information is presented and the significance of the different bars shown, including whether images are depicted or measured quantities. Please also revise the charts on pages 78 to 79 so that it is clear what information is represented by the lines extending from the bars shown, as they do not appear to align consistently with units shown.
8. Please explain the significance of KB103 infecting both keratinocytes and fibroblasts.

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General

9. Please provide us proofs of all graphics, 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.

You may contact Christine Torney at (202) 551-3652 or Sharon Blume at (202) 551-3474 if you have questions regarding comments on the financial statements and related matters. Please contact Christine Westbrook at (202) 551-5019 or Erin Jaskot at (202) 551-3442 with any other questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: John W. Campbell, Esq.