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

DIVISION OF
CORPORATION FINANCE

July 28, 2015

Steven M. Paul, M.D.
President and Chief Executive Officer
Voyager Therapeutics, Inc.
75 Sidney Street
Cambridge, Massachusetts 02139

Re: Voyager Therapeutics, Inc.
Amendment No. 2 to Draft Registration Statement
Submitted July 21, 2015
CIK No. 0001640266

Dear Dr. Paul:

We have reviewed your amended 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.

The Voyager Product Engine, page 2

1. We refer to your response to prior comment 1. We also note your disclosure in the third paragraph, "….a baculovirus AAV production system, a system for manufacturing AAV vectors that uses viruses from the baculoviridae family, which we use and have continued to improve upon." Please revise this disclosure to explain in layman's terms the meaning or significance of the baculoviridae family to facilitate an understanding on the baculovirus AAV production system.

Manufacturing at Commercial Quality and Scale, page 5

2. We note your amended disclosure in response to our prior comment 6. Please clarify your disclosure to identify where in the Western world Glybera is an approved AAV gene therapy. In the alternative, please state that the FDA has not approved a gene therapy.

Risk Factors, page 6

3. We refer to our prior comment 7 and your revised disclosure on page 6. We note your product candidates and the process for administering your product candidates may cause undesirable side effects. We also note your disclosure regarding several significant side effects caused by other gene therapy treatments using non-AAV vectors. As disclosed in your prospectus, patients in the prior Phase 1 trial utilizing AAV vectors experienced hemorrhages relating to the surgical procedure of administering the treatment. Please expand your bulleted risk factor to include other several significant side effects (i.e. hemorrhages) associated with the administration of gene therapy products.

The dosing and delivery techniques being employed in the ongoing VY-AADC01, page 17

4. We refer to our prior comment 10 and your amended disclosure on pages 17, 95 and 102. Please expand your disclosure to clearly state the previous problem(s) the system is intended to solve. For example, if the Clearpoint System is being used to reduce the risk of hemorrhages please revise your prospectus accordingly. In that regard, we note your disclosure in the second to last paragraph on page 101, "[n]evertheless, the stereotactic injection protocol used in the surgical procedure was modified to avoid specific blood vessels and no further hemorrhages were reported. The implementation of real-time MRI guidance in the ongoing Phase 1b clinical trial is a significant advancement in vector delivery."

Genzyme Collaboration Agreement, page F-20

5. We have read your revised disclosure in response to our prior comment 24. You disclose in MD&A under research and development expense on page 82 that approximately $1 million was incurred on your behalf by third parties related to the Genzyme Collaboration. Please tell us why you are unable to disclose this amount and other expenses incurred or at least a reasonable estimate of expenses incurred under the Genzyme Collaboration. Refer to ASC 730-20-50-1b.

You may contact Keira Nakada at (202) 551-3659 or James Rosenberg at 202-551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Tara Keating Brooks at (202) 551-8336 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

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