

CATABASIS PHARMACEUTICALS, INC.
ONE KENDALL SQUARE
BUILDING 1400E, SUITE B14202
CAMBRIDGE, MA 02139

July 15, 2016

Via EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Re: Catabasis Pharmaceuticals, Inc.
Registration Statement on Form S-3
File No. 333-212382
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Catabasis Pharmaceuticals, Inc. (the "**Registrant**") hereby requests acceleration of the effective date of its Registration Statement on Form S-3 (File No. 333-212382) (the "**Registration Statement**"), so that it may become effective at 4:00 p.m. Eastern time on July 19, 2016, or as soon thereafter as practicable.

The Registrant hereby acknowledges that:

- (a) should the Securities and Exchange Commission (the "**Commission**") or the staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- (b) the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- (c) the Registrant may not assert staff comments and the declaration of effectiveness of the Registration Statement as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

[The remainder of this page is intentionally left blank.]

Very truly yours,

Catabasis Pharmaceuticals, Inc.

By: /s/ Deirdre A. Cunnane
Name: Deirdre A. Cunnane
Title: Senior Vice President, General Counsel

[Signature Page to Request for Acceleration]
