IDERA PHARMACEUTICALS, INC. 167 Sidney Street Cambridge, Massachusetts 02139

September 7, 2017

By EDGAR Submission

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

> Re: Idera Pharmaceuticals, Inc. Registration Statement on Form S-3 File No. 333-219851 Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Idera Pharmaceuticals, Inc. hereby requests acceleration of the effective date of its Registration Statement on Form S-3 (File No. 333-219851) so that it may become effective at 4:00 p.m., Eastern time, on September 8, 2017, or as soon thereafter as practicable.

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

Very truly yours,

IDERA PHARMACEUTICALS, INC.

/s/ Louis J. Arcudi, III Louis J. Arcudi, III Chief Financial Officer and Treasurer