

**Aerpio Pharmaceuticals, Inc.**  
**9987 Carver Road**  
**Cincinnati, OH 45242**

April 9, 2018

VIA EDGAR

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

**Re: Aerpio Pharmaceuticals, Inc. (the "Company")**  
**Acceleration Request for Registration Statement on Form S-3**  
**File No. 333-223113**

Ladies and Gentlemen:

In accordance with Rule 461 under the Securities Act of 1933, as amended (the "**Securities Act**"), the undersigned respectfully requests that the effective date for the Registration Statement referred to above be accelerated so that it will be declared effective at 4:00 p.m., Washington, D.C. time, on April 11, 2018, or at such later time as the Company or its counsel may orally request via telephone call to the staff. Once the Registration Statement has been declared effective, please orally confirm that event with our counsel, Goodwin Procter LLP, by calling Danielle Lauzon at (617) 570-1955. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Securities Act.

Very truly yours,

Aerpio Pharmaceuticals, Inc.

By: /s/ Stephen Hoffman  
Name: Stephen Hoffman  
Title: Chief Executive Officer

cc: Goodwin Procter LLP