

April 13, 2021

**VIA EDGAR**

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

**Re: Aerpio Pharmaceuticals, Inc.  
Registration Statement on Form S-3  
Filed April 8, 2021  
File No. 333-255129**

Dear Ms. Schwartz

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the “**Act**”), Aerpio Pharmaceuticals, Inc. (the “**Company**”) hereby requests that the effective date of the above-referenced registration statement (the “**Registration Statement**”) be accelerated to April 15, 2021, at 4:01 p.m. Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act.

If you have any questions regarding this request, please contact James Xu of Goodwin Procter LLP at (617) 570-1483.

Sincerely,

Aerpio Pharmaceuticals, Inc.

/s/ Joseph Gardner

Joseph Gardner

President and Founder

cc: Gina Marek, *Vice President Finance, Aerpio Pharmaceuticals, Inc.*  
Danielle Lauzon, Esq., *Goodwin Procter LLP*  
James Xu, Esq., *Goodwin Procter LLP*