

September 8, 2017

**VIA EDGAR**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, NE  
Washington, D.C. 20549  
Attention: Irene Paik

**Re: Gemphire Therapeutics Inc.  
Registration Statement on Form S-3  
File No. 333-220315  
Acceleration Request  
Requested Date: September 12, 2017  
Requested Time: 5:00 P.M. Eastern Time**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Gemphire Therapeutics Inc. (the “**Company**”) hereby requests that the above-referenced Registration Statement on Form S-3 (File No. 333-220315) (the “**Registration Statement**”) be declared effective at the “Requested Date” and “Requested Time” set forth above, or as soon as practicable thereafter, or at such later time as the Company or its counsel may orally request via telephone call to the staff (the “**Staff**”) of the Division of Corporation Finance of the Securities and Exchange Commission (the “**Commission**”). The Company hereby authorizes each of Phillip D. Torrence, Meredith Ervine and Gabrielle L. Sims of Honigman Miller Schwartz and Cohn LLP, counsel to the Company, to make such request on its behalf.

Please confirm the effectiveness of the Registration Statement with Gabrielle L. Sims of Honigman Miller Schwartz and Cohn LLP by telephone at (313) 465-7620.

Sincerely,

Gemphire Therapeutics Inc.

/s/ Steven Gullans

Steven Gullans  
Interim President and Chief Executive Officer

cc: Jeffrey S. Mathiesen, Gemphire Therapeutics Inc.  
Phillip D. Torrence, Honigman Miller Schwartz and Cohn LLP  
Meredith Ervine, Honigman Miller Schwartz and Cohn LLP  
Gabrielle L. Sims, Honigman Miller Schwartz and Cohn LLP

---