

April 19, 2017

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F. Street, NE
Washington, D.C. 20549
Attention: Suzanne Hayes and Mary Beth Breslin

**Re: Gemphire Therapeutics Inc.
Registration Statement on Form S-1
File No. 333-217296
Acceleration Request
Requested Date: April 20, 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-1 (File No. 333-217296) (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.

In connection with the acceleration request, the Company hereby acknowledges that:

- should 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;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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.

[Signature page follows]

Sincerely,

GEMPHIRE THERAPEUTICS INC.

/s/ MINA SOOCH

Mina Sooch
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
