



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

April 18, 2017

Mina Sooch  
Chief Executive Officer  
Gemphire Therapeutics Inc.  
17199 N. Laurel Park Drive, Suite 401  
Livonia, Michigan 48152

**Re: Gemphire Therapeutics Inc.  
Registration Statement on Form S-1  
Filed April 13, 2017  
File No. 333-217296**

Dear Ms. Sooch:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Chris Edwards at (202) 551-6761 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Meredith Ervine, Esq.  
Honigman Miller Schwartz and Cohn LLP