

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-A

**FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) OR (g) OF
THE SECURITIES EXCHANGE ACT OF 1934**

Gemphire Therapeutics Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation or organization)

47-2389984
(I.R.S. Employer Identification No.)

**43334 Seven Mile Road, Suite 1000
Northville, Michigan 48167**
(Address of principal executive offices including zip code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class
to be so registered

Name of each exchange on which
each class is to be registered

Common stock, par value \$0.001 per share

The NASDAQ Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c), check the following box. x

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A. (d), check the following box. o

Securities Act registration statement file number to which this form relates:
333-210815

Securities to be registered pursuant to Section 12(g) of the Act:
None

Item 1. Description of Registrant's Securities to be Registered.

For a description of the common stock, par value \$0.001 per share, of Gemphire Therapeutics Inc. (the "**Registrant**") being registered hereunder, reference is made to the information set forth under the heading "Description of Capital Stock" contained in the prospectus forming a part of the Registration Statement on Form S-1 (File No. 333-210815), as initially filed with the Securities and Exchange Commission (the "**Commission**") on April 18, 2016 (the "**Registration Statement**"), including exhibits, and as subsequently amended, which is hereby incorporated by reference. In addition, all of the above-referenced description included in any prospectus relating to the Registration Statement filed with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, shall be deemed to be incorporated by reference herein.

Item 2. Exhibits.

Pursuant to the "Instructions as to Exhibits" with respect to Form 8-A, no exhibits are required to be filed as part of this registration statement because no other securities of the Registrant are registered on The NASDAQ Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

GEMPHIRE THERAPEUTICS INC.

Date: June 20, 2016

By: /s/ Mina Sooch
Mina Sooch
President and Chief Executive Officer

