FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

shington, I	D.C.	20549		

	OMB APPROVAL
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

or Section 30(h) of the Investment Company Act of 1940 5. Relationship of Reporting Person(s) to Issuer 2. Issuer Name and Ticker or Trading Symbol 1. Name and Address of Reporting Person (Check all applicable) Gemphire Therapeutics Inc. [GEMP] Sooch Mina X Director 10% Owner Officer (give title Other (specify X below) below) 3. Date of Earliest Transaction (Month/Day/Year) (Last) (First) (Middle) 09/30/2016 President & CEO 17199 N. LAUREL PARK DRIVE SUITE 401 4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) (Street) X Form filed by One Reporting Person LIVONIA 48152 MI Form filed by More than One Reporting (City) (State) (Qip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 2. Transaction Date 2A. Deemed Execution Date, 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) 6. Ownership Form: Direct 5. Amount of Securities 7. Nature of 1. Title of Security (Instr. 3) Transaction Indirect if any (Month/Day/Year) Code (Instr. Beneficially (D) or Indirect **Beneficial** Ownership (Instr. 4) (Month/Day/Year) 8) Owned Following Reported (A) or (D) Transaction(s) Code Amount Price (Instr. 3 and 4) Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) 5. Number of 6. Date Exercisable and 1. Title of 3. Transaction 7. Title and Amount 9. Number of 11. Nature 3A. Deemed 8. Price of Ownership Derivative ..പ്പsaction Code (Instr. 8) Conversion **Execution Date** of Securities Derivative derivative of Indirect Security (Instr. 3) or Exercise (Month/Day/Year) Securitie (Month/Day/Year) Underlying Derivative Security Security (Instr. 5) Securities Form: Direct (D) Beneficial if any (Month/Day/Year) Acquired (A) or Price of Beneficially Ownership

buy)

\$10

Employee Stock

Option

(right to

Derivative

Security

Explanation of Responses: 1. The reporting person was granted an option to purchase 600,000 shares of common stock effective August 4, 2016. 360,000 of the shares underlying the option award were immediately earned on the date of grant, 120,000 shares underlying the option award are earned upon the initiation of the Company's first clinical trial and 120,000 shares underlying the option award are earned upon the initiation of the Company's second clinical trial. The Company has initiated its first clinical trial, so the 120,000 shares underlying the option award that were subject to the initiation of the Company's first clinical trial have been earned.

Date

(2)

(D)

Expiration

08/03/2026

2. The option vests in 48 equal consecutive monthly increments, so that all of the shares will be vested on the fourth anniversary of the date of grant.

A

Stephanie Swan, by Power of Attorney

(Instr. 3 and 4)

Title

Stock

Amount

Number

120,000

\$<mark>0</mark>

10/03/2016

** Signature of Reporting Person

Date

Owned

Following Reported

(Instr. 4)

Transaction(s)

480,000(1)

or Indirect (I) (Instr. 4)

D

(Instr. 4)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

09/30/2016

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

Disposed of

(D) (Instr. 3, 4 and 5)

(A)

120,000(1)