| SEC F | Form 4 |
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## FORM 4

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

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

| OMB Number:              | 3235-0287 |  |  |  |  |
|--------------------------|-----------|--|--|--|--|
| Estimated average burden |           |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  2. Issuer Name and Ticker or Trading Symbol  5. Relationship of Reporting Person(s) to Issuer    Payne Joseph E   | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |         |          |  |        |                        |   |   |  |  |  |
|---|--|---------|----------|--|--------|------------------------|---|---|--|--|--|
| Payne Joseph E  Arcturus Therapeutics Holdings Inc. [ ARCT  (Check all applicable)  X  Director  X  10% Owner    (Last)  (First)  (Middle)  3. Date of Earliest Transaction (Month/Day/Year)  Officer (give title  Other (specify below)    10628 SCIENCE CENTER DRIVE, SUITE 250  4. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applicable Line)  X  Form filed by One Reporting Person Form filed by More than One Reporting | (City)   | (State) | (Zip)    |  |        |                        |   |   |  |  |  |
| Payne Joseph E  Arcturus Therapeutics Holdings Inc. [ARCT]  (Check all applicable)    (Last)  (First)  (Middle)    C/O ARCTURUS THERAPEUTICS HOLDINGS  3. Date of Earliest Transaction (Month/Day/Year)  Officer (give title Other (specify below)    10628 SCIENCE CENTER DRIVE, SUITE 250  4. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applicable)   | . ,  | CA      | 92121    | _  | 1 '    | Form filed by More     | • | 0 |  |  |  |
| Payne Joseph E  Arcturus Therapeutics Holdings Inc. [ ARCT  (Check all applicable)  X  Director  X  10% Owner    (Last)  (First)  (Middle)  3. Date of Earliest Transaction (Month/Day/Year)  Officer (give title other (specify below)  Other (specify below)    INC.  02/18/2020  President and CEO   |  |         |          | 4. If Amendment, Date of Original Filed (Month/Day/Year) |        |                        |   |   |  |  |  |
| Payne Joseph E  Arcturus Therapeutics Holdings Inc. [ARCT]  (Check all applicable)    X  Director  X  10% Owner    X  Officer (give title  Other (specify   | INC.   |         |          | of Balo of Earload on (month/Bal) foar)                  |        |                        |   |   |  |  |  |
| Payme Joseph F. Arcturus Therapeutics Holdings Inc. [ARCT (Check all applicable)  | (Last)   | (First) | (Middle) | _ []   | x      |                        |   |   |  |  |  |
|   | , ,  |         |          | 8,   | (Check | (Check all applicable) |   |   |  |  |  |

| 1. Title of Security (Instr. 3) | Date | if any |      |   | 4. Securities Acquired (A) or<br>Disposed Of (D) (Instr. 3, 4 and 5) |               |       | Beneficially<br>Owned Following                | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership |
|---------------------------------|------|--------|------|---|--|---------------|-------|--|---|---|
|                                 |      |        | Code | v | Amount   | (A) or<br>(D) | Price | Reported<br>Transaction(s)<br>(Instr. 3 and 4) |   | (Instr. 4)  |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   |         |     | 6. Date Exerc<br>Expiration Da<br>(Month/Day/Y | te                 | 7. Title and Amount<br>of Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |                                     | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|---------|-----|--|--------------------|---|-------------------------------------|---|--|--|--|
|   |   |  |   | Code                         | v | (A)     | (D) | Date<br>Exercisable                            | Expiration<br>Date | Title   | Amount<br>or<br>Number<br>of Shares |   | Transaction(s)<br>(Instr. 4)   |  |  |
| Stock<br>Option<br>(right to<br>buy)                | \$14.12   | 02/18/2020                                 |   | A                            |   | 100,000 |     | (1)  | 02/18/2030         | Common<br>Stock   | 100,000                             | \$0.00  | 100,000  | D  |  |

Explanation of Responses:

1. 25% of the shares underlying the option vest on the one year anniversary of the date of grant, with the remainder vesting in 36 successive equal monthly increments thereafter.

## Remarks:

| <u>/s/</u> | Ilan | Katz, | attorney- | in-fact |
|------------|------|-------|-----------|---------|
|            |      |       |           |         |

\*\* Signature of Reporting Person

02/20/2020

Date

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

 $^{\ast}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* 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.