| SEC For   | m 4   |   |  |                |  |   |  |   |  |                    |  |  |  |  |                            |   |                                       |
|---|---|---|--|----------------|--|---|--|---|--|--------------------|--|--|--|--|----------------------------|---|---------------------------------------|
| FORM 4 UNITE  |   |   |  | ) STA          | TE   | S S   | -  |   | S AND  |                    | NGE C  | оммі                                       | SSION  |  |                            |   |                                       |
|   |   | Washington, D.C. 20549  |  |                |  |   |  |   |  |                    |  | OMB APPROVAL                               |  |  |                            |   |                                       |
| Check<br>Sectior<br>obligati<br>Instruc                               | STAT  | STATEMENT OF CHANGES IN BENEFICIAL OWNE<br>Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934<br>or Section 30(h) of the Investment Company Act of 1940 |  |                |  |   |  |   |  |                    |  | Estim                                      | Numbe<br>nated av<br>s per res                                     | erage burde  | 3235-0287<br>n<br>0.5      |   |                                       |
| transac<br>contrac<br>the pur<br>securiti<br>to satis                 | chase or sale or<br>es of the issue<br>fy the affirmativ<br>ons of Rule 10b | pursuant to a<br>written plan for<br>of equity<br>r that is intended<br>ve defense  |  |                | C  | or Sec  | uon 30(n) o  | rine                                    | investment C   | ompany Act o       | 51 1940  |  |  |  |                            |   |                                       |
| 1. Name and Address of Reporting Person <sup>*</sup><br>Chivukula Pad |   |   |  |                |  | 2. Issuer Name <b>and</b> Ticker or Trading Symbol<br>Arcturus Therapeutics Holdings Inc. [ARCT |  |   |  |                    |  |  | 5. Relationship of Reporting<br>(Check all applicable)<br>Director |  |                            | Person(s) to Issuer<br>10% Owner  |                                       |
| (Last) (First) (Middle)   |   |   |  |                | ]  |   |  |   |  |                    |  | [  | Officer (give title below)   |  |                            | Other (speci<br>below)  |                                       |
| C/O ARCTURUS THERAPEUTICS HOLDINGS<br>INC.                            |   |   |  |                | 3. Date of Earliest Transaction (Month/Day/Year)<br>12/16/2024 |   |  |   |  |                    |  |  | Chief Scientific Officer & COO                                     |  |                            |   |                                       |
| 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)        |  |                            |   |                                       |
| (Street)<br>SAN DI  | 92121   |   |  |                |  |   |  |   |  |                    | Form filed by More than One Reporting                                |  |  |  |                            |   |                                       |
| (City) (State) (A   |   |   | (Zip)  |                |  |   |  |   |  |                    |  |  |  |  |                            |   |                                       |
|   |   | Та  | ble I - Non  | -Deriv         | ativ   | /e Se   | curities   | Aco                                     | quired, Dis  | sposed of          | f, or Ben  | eficiall                                   | y Owned  |  |                            |   |                                       |
| 1. Title of Security (Instr. 3) 2. Trans<br>Date<br>(Month/           |   |   |  | Day/Year) if a |  | 2A. Deeme<br>Execution I<br>if any<br>(Month/Day  | Date,  | 3.<br>Transactio<br>Code (Instr<br>) 8) | 4. Securities Acquired (A)<br>Disposed Of (D) (Instr. 3, 4<br>5) |                    |  | 4 and Securities<br>Beneficial<br>Owned Fo |  | Form   | : Direct<br>Indirect       | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership                     |                                       |
|   |   |   |  |                |  |   |  |   | Code V   | Amount             | (A) or<br>(D)  | Price                                      | Reported<br>Transaction<br>(Instr. 3 and                           | on(s)  |                            | (   | (Instr. 4)                            |
|   |   |   | Table II - I<br>(                                    |                |  |   |  |   | uired, Disp<br>, options,  |                    |  |  | Owned  |  |                            |   |                                       |
| 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 Da<br>if any<br>(Month/Day/) | C              | 4.<br>Transaction<br>Code (Instr.<br>3)                        |   | 5. Number of<br>Derivative<br>Securities<br>Acquired (A)<br>or Disposed<br>of (D) (Instr. 3,<br>4 and 5) |   | 6. Date Exerc<br>Expiration D<br>(Month/Day/                     | ate                | 7. Title an<br>of Securit<br>Underlyin<br>Derivative<br>(Instr. 3 ar | ies<br>9<br>Security                       | 8. Price of<br>Derivative<br>Security<br>(Instr. 5)                | 9. Numbe<br>derivativ<br>Securitie<br>Beneficia<br>Owned<br>Followin<br>Reported<br>Transact | re<br>es<br>ally<br>g<br>d | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4 | Beneficial<br>Ownership<br>(Instr. 4) |
|   |   |   |  | Co             | ode  | v   | (A) (D)  | (D)                                     | Date<br>Exercisable  | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of<br>Shares     |  | (instr. 4)   |                            |   |                                       |
| Employee<br>Stock<br>Option<br>(right to<br>buy)                      | \$16.24   | 12/16/2024  |  |                | A  |   | 60,000 <sup>(1)</sup>  |   | (2)  | 12/16/2034         | Common<br>Stock  | 60,000                                     | \$0.00   | 60,00  | 00                         | D   |                                       |
| Explanatio  | n of Respons  | ses:  |  |                |  |   |  |   |  |                    |  |  |  |  |                            |   |                                       |

1. Represents options to purchase shares of common stock granted pursuant to the Company's Amended and Restated 2019 Omnibus Equity Incentive Plan, as amended.

2. The shares underlying this option vest 25% on December 16, 2025, the first anniversary of the date of grant, and the remainder vest in equal increments on each successive one-month anniversary thereafter for the next thirty-six months.

/s/ Ilan Katz, attorney-in-fact 12/18/2024

\*\* Signature of Reporting Person

Date

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).

\*\* 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.