

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

OMB Number: 3235-0104  
Estimated average burden  
hours per response: 0.5Filed 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* <u>Payne Joseph E</u>  (Last) (First) (Middle) <u>C/O ARCTURUS THERAPEUTICS LTD.</u> <u>10628 SCIENCE CENTER DRIVE, SUITE</u> <u>250</u>  (Street) <u>SAN DIEGO CA 92121</u>  (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>01/01/2019</u>	3. Issuer Name and Ticker or Trading Symbol <u>Arcturus Therapeutics Ltd. [ ARCT ]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>President and CEO</u>	5. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

## Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
<u>Ordinary Shares</u>	<u>1,469,097<sup>(1)(2)</sup></u>	<u>D</u>	

## Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
<u>STOCK OPTION (right to purchase)<sup>(1)(2)</sup></u>	<u>(3)</u>	<u>08/23/2028</u>	<u>Ordinary Shares</u>	<u>120,000</u>	<u>8</u>	<u>D</u>	

## Explanation of Responses:

- The Reporting Person is filing this form in connection with the Issuer's transition from reporting as a foreign private issuer to reporting as a domestic issuer, effective January 1, 2019.
- Includes 366,274 ordinary shares subject to repurchase pursuant to a Common Stock Purchase Agreement, dated March 4, 2013, as amended on September 27, 2017, by and between the Reporting Person and the Issuer.
- Vesting over a period of four years from August 24, 2018, with 25% of the options vesting on the first anniversary thereof and the remainder vesting in equal monthly installments thereafter.

/s/ Joseph E. Payne01/02/2019

\*\* 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 5 (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.