

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, 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).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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 (Check all applicable) | |
| Longworth Todd Christopher | | Novocure Ltd [NVCR] | | <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) General Counsel | |
| (Last) (First) (Middle) | | 3. Date of Earliest Transaction (MM/DD/YYYY) | | | |
| C/O NOVOCURE INC., 20 VALLEY STREAM PARKWAY, SUITE 300 | | 2/22/2018 | | | |
| (Street) | | 4. If Amendment, Date Original Filed (MM/DD/YYYY) | | 6. Individual or Joint/Group Filing (Check Applicable Line) | |
| MALVERN, PA 19355 | | | | <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person | |
| (City) (State) (Zip) | | | | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Trans. Date | 2A. Deemed Execution Date, if any | 3. Trans. Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|----------------|-----------------------------------|---------------------------|---|---|------------|--------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Ordinary Shares | 2/22/2018 | | M | | 21667 | A | \$21.55 | 26665 | D | |
| Ordinary Shares | 2/23/2018 | | S | | 6591 | D | \$19.828 (1) | 20074 | D | |

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

| 1. Title of Derivate Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Trans. Date | 3A. Deemed Execution Date, if any | 4. Trans. Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|----------------|-----------------------------------|---------------------------|---|--|-----|---|-----------------|---|----------------------------|--|--|--|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Restricted Stock Units | \$0.00 | 2/22/2018 | | M | | 21667 | | 2/22/2018 | (2) | Ordinary Shares | 21667 | \$0.00 | 43333 | D | |

Explanation of Responses:

- (1) Represents the number of shares required to be sold by the reporting person to cover tax withholding obligations in connection with the vesting of the Restricted Stock Units listed in Table II. This sale is mandated by the Issuer's award agreement under its equity incentive plans to require the satisfaction of tax withholding obligations to be funded by a "sell to cover" transaction and does not represent a discretionary trade by the reporting person.
- (2) Fully vested as of the date hereof.

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Longworth Todd Christopher C/O NOVOCURE INC. 20 VALLEY STREAM PARKWAY, SUITE 300 MALVERN, PA 19355 | | | General Counsel | |

Signatures

/s/ Todd Longworth

2/26/2018

**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 control number.