FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL |          |  |  |  |  |  |  |  |  |
|--------------|----------|--|--|--|--|--|--|--|--|
| OMB Number:  | 3235-028 |  |  |  |  |  |  |  |  |

Estimated average burden hours per response: 0.5

## 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

| 1. Name and Address of Reporting Person*  Hamilton Richard William   |   |         |                   |                 | 2. Issuer Name <b>and</b> Ticker or Trading Symbol  YIELD10 BIOSCIENCE, INC. [ YTEN ] |   |         |  |                                      |                         |   |             |             |                        |  | licable)   | ng Person(s) to   | Issuer<br>Owner   |                   |
|--|---|---------|-------------------|-----------------|---|---|---------|--|--------------------------------------|-------------------------|---|-------------|-------------|------------------------|--|--|---|---|-------------------|
| (Last) (First) (Middle) C/O YIELD10 BIOSCIENCE, INC.   |   |         |                   |                 | 3. Date of Earliest Transaction (Month/Day/Year) 06/30/2017                           |   |         |  |                                      |                         |   |             |             |                        |  | Officer (give title below)   |   | Oth<br>belo   | er (specify<br>w) |
| 19 PRESIDENTIAL WAY  (Street)  WOBURN MA 01801   |   |         |                   |                 | 4. If   | 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)   | (St   | ate) (2 | Zip)              |                 |   |   |         |  |                                      |                         |   |             |             |                        |  | Pers   | OII   |   |                   |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned   |   |         |                   |                 |   |   |         |  |                                      |                         |   |             |             |                        |  |  |   |   |                   |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Date)  |   |         |                   | Day/Year)   Exe |   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |         | Code (   | Transaction Disposed Code (Instr. 5) |                         | ties Acquired (A)<br>d Of (D) (Instr. 3,  |             |             | 4 and Sec<br>Ber<br>Ow |  | cially<br>I Following  | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>t Beneficial<br>Ownership<br>(Instr. 4) |                   |
|  |   |         |                   |                 |   |   |         |  |                                      | v                       | Amount  | ()<br>(I    | A) or<br>D) | Price                  |  | Reported<br>Transaction(s)<br>(Instr. 3 and 4)   |   |   | (111501.4)        |
| Common Stock 06/3  |   |         |                   | 06/30           | 6/30/2017   |   |         |  |                                      |                         | 2,1840  | (1) A       |             | \$                     | \$0 3,0  |  | 041(2)  | D   |                   |
| 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)  | tive Conversion Date Execution Da<br>ty or Exercise (Month/Day/Year) if any |         | Date, Transaction |                 |   |   |         | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                                      |                         | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |             |             |                        | ivative<br>urity   | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(<br>(Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | Beneficial<br>Ownership<br>t (Instr. 4)                             |                   |
|  |   |         |                   |                 | Code  | v   | (A) (D) |  | Date<br>Exercisa                     | Date E<br>Exercisable D |   | or<br>Numbe |             | nber                   |  |  |   |   |                   |

## **Explanation of Responses:**

- 1. These shares were issued to the Reporting Person pursuant to the Issuer's Director Compensation Policy for services rendered to the Issuer as a member of its Board of Directors and/or a committee thereof during the second quarter of 2017.
- 2. All share numbers reported reflect the 1-for-10 reverse stock split effected on May 30, 2017.

/s/ Megan N. Gates, attorney-

07/05/2017

in-fact

\*\* 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.