FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

| Vashington, | D.C. 20549 |
|-------------|------------|
|-------------|------------|

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| 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*  Brown Sherri M.    |  |            |                |   | 2. Issuer Name and Ticker or Trading Symbol YIELD10 BIOSCIENCE, INC. [ YTEN ] |  |   |  |                   |  |                         |   | Relationship of Reporting Person(s) to Issuer (Check all applicable)     X Director 10% Owner       |  |   |                                       |        |  |
|--|--|------------|----------------|---|---|--|---|--|-------------------|--|-------------------------|---|---|--|---|---------------------------------------|--------|--|
| (Last) (First) (Middle) 19 PRESIDENTIAL WAY                  |  |            |                |   | 3. Date of Earliest Transaction (Month/Day/Year) 05/25/2022                   |  |   |  |                   |  |                         |   | Officer<br>below)   | (give title  |   | Other (s<br>below)                    | pecify |  |
| (Street) WOBUR (City)  |  |            | 01801<br>(Zip) |   | 4. 1  | 4. If Amendment, Date of Original Filed (Month/Day/Year) |   |  |                   |  |                         |   | Line  | Individual or Joint/Group Filing (Check Applicable e)  X Form filed by One Reporting Person Form filed by More than One Reporting Person |   |                                       |        |  |
|  | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned   |            |                |   |   |  |   |  |                   |  |                         |   |   |  |   |                                       |        |  |
| 1. Title of Security (Instr. 3)  2. Transar Date (Month/Date |  |            |                |   | Execution Date,   |  | 3. Transaction Code (Instr. 8)  4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4) 5) |  |                   | 5. Amour<br>Securitie<br>Beneficia<br>Owned F<br>Reported  | Form (D) or             |   | : Direct I<br>Indirect I<br>str. 4)   | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)  |   |                                       |        |  |
|  |  |            |                |   |   | Code   | v   | Amount   | (A) or<br>(D)     | Price  | Transact<br>(Instr. 3 a | ion(s)  |   |  |   |                                       |        |  |
|  | 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)          | ative Conversion Date Execution Date, ity or Exercise (Month/Day/Year) if any  |            | ate, T         | 4.<br>Transaction<br>Code (Instr.<br>8) |   | Derivative   |   | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                   | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |                         | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number<br>derivative<br>Securities<br>Beneficial<br>Owned<br>Following<br>Reported<br>Transactio | ly   | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | Beneficial<br>Ownership<br>(Instr. 4) |        |  |
|  |  |            |                |   | Code  | v  | (A)   | (D)  | Date<br>Exercisab |  | Expiration<br>Date      | Title   | Amount<br>or<br>Number<br>of<br>Shares  |  | (Instr. 4)  | лі(ә)                                 |        |  |
| Stock<br>Option<br>(right to<br>buy)                         | \$2.69   | 05/25/2022 |                |   | Α   |  | 5,000 <sup>(1)</sup>  |  | (2)               | -  | 05/25/2032              | Common<br>Stock                                     | 5,000   | \$0  | 5,000   |                                       | D      |  |

## **Explanation of Responses:**

- 1. These options were granted to the Reporting Person as the annual option grant to non-employee directors pursuant to the Issuer's Director Compensation Policy for services to be rendered to the Issuer as a member of its Board of Directors.
- 2. These options will vest and become exercisable in equal quarterly installments over 4 years from 5/25/2022, beginning on 8/25/2022 and ending on 5/25/2026.

/s/ Megan N. Gates, attorney-

in-fact

\*\* Signature of Reporting Person Date

05/26/2022

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.