

YIELD10 BIOSCIENCE, INC.

Reported by
BRUM LYNNE H

FORM 4

(Statement of Changes in Beneficial Ownership)

Filed 04/04/17 for the Period Ending 04/01/17

Address	19 PRESIDENTIAL WAY SUITE 201 WOBURN, MA 01801
Telephone	617-583-1700
CIK	0001121702
Symbol	YTEN
SIC Code	3080 - Miscellaneous Plastics Products
Industry	Biotechnology & Medical Research
Sector	Healthcare
Fiscal Year	12/31

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

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).

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 * BRUM LYNNE H (Last) (First) (Middle) C/O YIELD10 BIOSCIENCE, INC., 19 PRESIDENTIAL WAY (Street) WOBURN, MA 01801 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol YIELD10 BIOSCIENCE, INC. [YTEN] 3. Date of Earliest Transaction (MM/DD/YYYY) <p align="center">4/1/2017</p>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> X Officer (give title below) <input type="checkbox"/> Other (specify below) VP Planning & Comms 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> 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. 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			
Common Stock	4/1/2017		F		7392 <u>(1)</u>	D	\$0.37	89474	D	
Common Stock								27092 <u>(2)</u>	I	By 401(k) Plan

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				

Explanation of Responses:

- (1) Represents shares withheld in payment of withholding taxes upon vesting of RSUs granted 4/1/15.
- (2) Shares acquired as Company matching contributions under the Yield10 Bioscience, Inc. 401(k) Plan.

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
BRUM LYNNE H C/O YIELD10 BIOSCIENCE, INC. 19 PRESIDENTIAL WAY WOBURN, MA 01801			VP Planning & Comms	

Signatures

/s/ Megan N. Gates, attorney-in-fact 4/4/2017
**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.