UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) May 9, 2019

YIELD10 BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation)

001-33133 04-3158289

(Commission File Number) (IRS Employer Identification No.)

19 Presidential Way, Woburn, Massachusetts

01801

(Address of Principal Executive Offices)

(Zip Code)

(617) 583-1700

(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

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Item 2.02 Results Of Operations and Financial Condition.

On May 9, 2019, Yield10 Bioscience, Inc. issued a press release announcing the financial results for its three months ended March 31, 2019. A copy of the press release is attached hereto as Exhibit 99.1. This information, including Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.

Description

Press Release dated May 9, 2019 announcing financial results for three months ending March 31, 2019

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

YIELD10 BIOSCIENCE, INC.

May 9, 2019 By: /s/ Oliver P. Peoples

Oliver P. Peoples

President & Chief Executive Officer



Yield10 Bioscience Announces First Quarter 2019 Financial Results

WOBURN, Mass. - May 9, 2019 - Yield10 Bioscience, Inc. (NASDAQ:YTEN), an agricultural bioscience company which uses its "Trait Factory" to develop high value seed traits for the agriculture and food industries, today reported financial results for the three months ended March 31, 2019.

"2019 is off to a strong start for Yield10 and holds the potential to be a pivotal year for the Company," said Oliver Peoples, Ph.D., president and chief executive officer of Yield10 Bioscience. "With more than 10 crop yield traits advancing in our pipeline, we continue to execute against our strategy to generate proof points in key commercial crops throughout 2019. We are also leveraging our 'Trait Factory' to drive collaborative opportunities with the objective of forming revenue generating partnerships to create a path to commercialization for our yield traits."

"During the first quarter we completed the steps required to initiate planting for our 2019 Field Tests of C3003 and C3004, which we anticipate occurring in second quarter, pending suitable weather conditions. We also continued to make important progress deploying our novel yield traits for evaluation in canola, soybean, corn, wheat and rice, where in many cases we are leveraging third party capabilities and resources. We expect that many of these programs will produce agronomic and/or yield data during 2019, which should position Yield10 for future commercial opportunities," Dr. Peoples concluded.

Recent Accomplishments

Completed Start-up Activities for 2019 Field Tests. Yield10 completed seed bulk up, permitting and contracting associated with the Company's 2019 Field Tests planned for the evaluation of seed yield traits in oilseed crops. Key studies include the evaluation of second generation C3003 in canola and the evaluation of C3004 in first-time field tests in Camelina.

Advanced deployment of two key traits in canola. Yield10 progressed the characterization of C3007 deployed in canola lines using CRISPR genome-editing as a key step toward enabling the submission of an "Am I Regulated?" letter in advance of U.S. field tests. Yield10 also produced its first canola lines containing the C3004 seed yield trait, one that is based on inserting a gene from Camelina to improve seed yield.

Initiated an early development program in corn to evaluate novel seed yield and drought tolerance traits. Corn is the highest value commercial row crop grown in the United States. Under Yield10's corn program, six novel traits discovered by Yield10 are currently being deployed in corn by a third-party agriculture company with proven expertise introducing new traits into corn. This aspect of the development activity is expected to be completed in early 2020. Additional traits may be added to the program in 2019. Yield10 plans to engage an additional third-party to conduct field testing of the novel traits in corn to evaluate the impact on seed yield.

Broadened its intellectual property portfolio. Yield10 recently received a Notice of Allowance from the US PTO for claims relating to C3003. The patent is expected to issue in 2019. In addition,

Yield10 signed an exclusive global license with the University of Missouri to additional advanced technology based on the ACCase complex, designated C3012, to boost oil content in crops.

FIRST QUARTER 2019 FINANCIAL OVERVIEW

Yield10 Bioscience is managed with an emphasis on cash flow and deploys its financial resources in a disciplined manner to achieve its key strategic objectives.

The Company ended the first quarter of 2019 with \$6.1 million in unrestricted cash and cash equivalents. On March 18, 2019, Yield10 closed on a registered direct offering of its common stock, raising \$2.6 million, net of offering costs of \$0.3 million. The Company anticipates total net cash usage in a range of approximately \$9.0 million to \$9.5 million during 2019.

The Company's present capital resources, including funds received from its March 2019 offering, will not be sufficient to fund its planned operations for a twelve-month period and, therefore, raise substantial doubt about the Company's ability to continue as a going concern. The Company's ability to continue operations after its current cash resources are exhausted depends on its ability to obtain additional financing, including public or private equity financing, secured or unsecured debt financing, and receipt of additional government research grants, as well as licensing or other collaborative arrangements.

Operations

The Company's net cash used by operating activities during the first quarter of 2019 was \$2.3 million, a decrease of \$0.7 million from the \$3.0 million used in operating activities during first quarter 2018.

For the first quarter ending March 31, 2019, the Company reported a net operating loss of \$2.3 million, or \$0.22 per share which is consistent to a net operating loss of \$2.3 million, or \$0.24 per share, for 2018.

Total research grant revenue for the first quarter 2019 was \$0.1 million, consistent with \$0.1 million recorded in the previous year. Research and development expenses were \$1.2 million in the first quarter of 2019, compared to \$1.1 million for the similar period in 2018. General and administrative expenses were \$1.2 million and \$1.3 million for the first quarters ended March 31, 2019 and 2018, respectively.

The Company's 2018 condensed consolidated financial statements included in this press release have been adjusted to reflect the Company's adoption of Accounting Standards Update No. 2016-02 ("Topic 842"), *Leases*, on January 1, 2019. The effect of the new standard is material to the Company's financial statements. As permitted by Topic 842, the Company elected to modify its 2018 comparative financial statements to incorporate the new lease accounting guidance in order to ensure comparability between the two periods being presented.

Conference Call Information

Yield10 Bioscience management will host a conference call today at 5:00 p.m. (ET) to discuss the first quarter 2019 results. The Company also will provide an update on the business and answer questions from the investor community. A live webcast of the call with accompanying slides can be accessed through the Company's website at www.yield10bio.com in the investor relations events section. To participate in the call, dial toll-free 877-709-8150 or 201-689-8354 (international).

To listen to a telephonic replay of the conference call, dial toll-free 877-660-6853 or 201-612-7415 (international) and enter pass code 13689779. The replay will be available until May 23, 2019. In addition, the webcast will be archived on the Company's website in the investor relations events section.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is an agricultural bioscience company which uses its "Trait Factory" to develop high value seed traits for the agriculture and food industries to achieve step-change improvements in crop yield to enhance global food security. Yield10 has an extensive track record of innovation based around optimizing the flow of carbon in living systems. The "Trait Factory" has two components: the "GRAIN" computational modeling platform, which is used to identify specific gene changes designed to improve crop performance, and the deployment of those changes into crops using genome-editing or traditional agricultural biotechnology approaches. The purpose of the "Trait Factory" is to engineer precise alterations to gene activity and the flow of carbon in plants to produce higher yields with lower inputs of land, water or fertilizer. Yield10 is advancing several yield traits it has developed in crops such as canola, soybean, rice, wheat and corn. Yield10 is headquartered in Woburn, MA and has an Oilseeds Center of Excellence in Saskatoon, Canada.

For more information visit www.yield10bio.com (YTEN-E)

Safe Harbor for Forward-Looking Statements

This press release contains forward-looking statements which are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The forward-looking statements in this release do not constitute guarantees of future performance. Investors are cautioned that statements in this press release which are not strictly historical statements, including, without limitation, expectations regarding Yield10's cash position, cash forecasts and runway, ability to obtain sufficient financing to continue operating, expectations related to research and development activities, collaborations, intellectual property, the expected regulatory path for traits, reproducibility of data from field tests, the timing of completion of additional greenhouse and field test studies, the signing of research licenses and collaborations, and value creation as well as the overall progress of Yield10 Bioscience, Inc., constitute forward-looking statements. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated, including the risks and uncertainties detailed in Yield10 Bioscience's filings with the Securities and Exchange Commission. Yield10 Bioscience assumes no obligation to update any forward-looking information contained in this press release or with respect to the announcements described herein.

Contacts:

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FischTank Marketing and PR

(FINANCIAL TABLES FOLLOW)

YIELD10 BIOSCIENCE, INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS UNAUDITED

(In thousands, except share and per share amounts)

Three Months Ended
Manah 21

	March 31,			
	 2019		2018	
Revenue:				
Grant revenue	\$ 124	\$	60	
Total revenue	124		60	
Expenses:				
Research and development	1,223		1,101	
General and administrative	1,186		1,276	
Total expenses	2,409		2,377	
Loss from operations	(2,285)		(2,317)	
Other income (expense), net	25		25	
Net loss	\$ (2,260)	\$	(2,292)	
Basic and diluted net loss per share	\$ (0.22)	\$	(0.24)	
Number of shares used in per share calculations:				
Basic & Diluted	10,503,291		9,698,726	
	10,000,271		,,0,0,,,20	

YIELD10 BIOSCIENCE, INC. CONDENSED CONSOLIDATED BALANCE SHEETS UNAUDITED

(In thousands, except share and per share amounts)

	1	March 31, 2019		December 31, 2018
Assets				
Current Assets:				
Cash and cash equivalents	\$	6,065	\$	3,023
Short-term investments		_		2,746
Accounts receivable		45		94
Unbilled receivables		79		66
Prepaid expenses and other current assets		549		448
Total current assets		6,738		6,377
Restricted cash		332		332
Property and equipment, net		1,335		1,385
Right-of-use assets		4,619		4,766
Other assets		71		100
Total assets	\$	13,095	\$	12,960
Liabilities and Stockholders' Equity				
Current Liabilities:				
Accounts payable	\$	12	\$	117
Accrued expenses	Ψ	621	Ψ	680
Lease liabilities		869		844
Total current liabilities		1,502		1,641
Lease liabilities, net of current portion		5,398		5,621
Total liabilities		6,900		7,262
Commitments and contingencies				
Stockholders' Equity:				
Preferred Stock (\$0.01 par value per share); 5,000,000 shares authorized; no shares issued or outstanding		_		_
Common stock (\$0.01 par value per share); 60,000,000 shares authorized at March 31, 2019 and December 31, 2018; 12,468,219 and 10,025,811 shares issued and outstanding at March 31, 2019 and December 21, 2018, respectively.		125		100
31, 2018, respectively Additional paid-in capital		360,383		
Accumulated other comprehensive loss		(115)		357,646 (110)
Accumulated other comprehensive loss Accumulated deficit		(354,198)		(351,938)
Total stockholders' equity		6,195		5,698
	\$	13,095	\$	12,960
Total liabilities and stockholders' equity	Φ	13,093	Ф	12,900

YIELD10 BIOSCIENCE, INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS UNAUDITED (In thousands)

	Three Months Ended March 31,		
	 2019	2018	
Cash flows from operating activities			
Net loss	\$ (2,260)	\$ (2,292)	
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation	50	47	
Charge for 401(k) company common stock match	24	46	
Stock-based compensation	162	281	
Noncash lease expense	147	60	
Changes in operating assets and liabilities:			
Accounts receivables	49	12	
Unbilled receivables	(13)	29	
Prepaid expenses and other assets	(60)	(125)	
Accounts payable	(105)	(27)	
Accrued expenses	(92)	(993)	
Lease liabilities	 (198)	(68)	
Net cash used for operating activities	(2,296)	(3,030)	
Cash flows from investing activities			
Purchase of property and equipment	_	(3)	
Purchase of short-term investments	_	(4,002)	
Proceeds from the sale and maturity of short-term investments	2,746	11	
Net cash provided by (used for) investing activities	 2,746	(3,994)	
Cash flows from financing activities			
Proceeds from warrants exercised	_	124	
Proceeds from registered direct offering, net of issuance costs	2,597	_	
Net cash provided by financing activities	2,597	124	
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(5)	(4)	
Net increase (decrease) in cash, cash equivalents and restricted cash	3,042	(6,904)	
Cash, cash equivalents and restricted cash at beginning of period	3,355	14,804	
Cash, cash equivalents and restricted cash at end of period	\$ 6,397	\$ 7,900	
Supplemental disclosure of non-cash information:			

\$

\$

12 \$

14

\$

31

Purchase of property and equipment included in accounts payable and accrued expenses

Offering costs remaining in accrued expenses