

**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) August 9, 2018

YIELD10 BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation)

001-33133

(Commission File Number)

04-3158289

(IRS Employer Identification No.)

19 Presidential Way, Woburn, Massachusetts

(Address of Principal Executive Offices)

01801

(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):

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

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.

TABLE OF CONTENTS

Item 2.02. Results of Operations and Financial Condition

Item 9.01. Financial Statements and Exhibits

Signatures

Exhibit 99.1

Item 2.02 Results Of Operations and Financial Condition.

On August 9, 2018, Yield10 Bioscience, Inc. issued a press release announcing the financial results for the three and six months ended June 30, 2018. 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
99.1	Press Release dated August 9, 2018 announcing financial results for the three months ending June 30, 2018.

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.

Date: August 9, 2018

By: /s/ Oliver P. Peoples
Oliver P. Peoples
President & Chief Executive Officer



Yield10 Bioscience Announces Second Quarter 2018 Financial Results

WOBURN, Mass. - August 9, 2018 - Yield10 Bioscience, Inc. (Nasdaq:YTEN), a Company developing new technologies to achieve step-change improvements in crop yield to enhance global food security, today reported financial results for the three and six months ended June 30, 2018.

“A key highlight of the second quarter is the completion of planting for our 2018 field tests of C3003,” said Oliver P. Peoples, Ph.D., President and Chief Executive Officer of Yield10 Bioscience. “The results of these field tests will allow us to set the direction and priorities for the next steps in the evaluation and development of C3003 as a potentially valuable new trait to increase seed yield in oilseed crops.”

“In the second quarter, we also made significant progress advancing and expanding our portfolio of novel yield traits in development for boosting oil content in Camelina, canola and specialty soybean crops. We recently began our first field test of CRISPR-Cas9 genome-edited Camelina containing our C3008a trait at a site in the U.S. In addition, we obtained a global research license to CRISPR-Cas9 technology and we executed a worldwide license with University of Missouri for exclusive rights to traits C3007 and C3010, both accessible through CRISPR editing. Our approach is to test new traits alone and in combinations to enable the development of novel CRISPR edited oilseed crops with yields significantly increased over the seed available to commercial growers today.”

“In recent publications and industry conferences, the Yield10 team described our extensive capabilities in the development of new yield traits. Our capabilities are distinguished by our Camelina platform as well as our metabolic engineering models for crops which we are using together in our “GRAIN” technology platform to identify, rapidly screen, and test novel yield traits with application to a broad range of crops.”

“Our focus in the second half of 2018 is to generate key proof points on our yield traits in development, continue to expand our intellectual property portfolio, and to execute on opportunities for licensing and collaboration,” said Dr. Peoples.

Recent Accomplishments

2018 Field Test Program in Progress. In second quarter, Yield10 announced the completion of planting at field test sites in Canada for the evaluation of the novel yield trait gene C3003. Yield10 is testing versions of C3003 in Camelina and canola, and will grow C3003 soybean lines primarily to bulk up seed for field tests planned for 2019. Yield10 is also conducting a study in the U.S. of Camelina lines that have been genome-edited to inactivate the C3008 gene as part of a new multi-gene trait approach to increase seed oil content and to potentially improve oil stability. Yield10 expects to harvest seed in third quarter, and to report results of the field tests beginning in the fourth quarter of 2018.

Signed Non-exclusive Research License to CRISPR-Cas9 Technology. Yield10 signed a non-exclusive research license agreement jointly with the Broad Institute and Pioneer, part of Corteva AgriscienceTM Agriculture Division of DowDuPont, for the use of CRISPR-Cas9 genome-editing technology for crops. The license covers intellectual property consisting of approximately 48 patents and patent applications on CRISPR-Cas9 technology.

Signed Exclusive Global License to C3007 and C3010. In second quarter, Yield10 exercised its option with University of Missouri (MU) to obtain an exclusive worldwide license to C3007 and C3010, two novel gene technologies to boost oil content in commercial oilseed crops. The technologies were developed by Professor of Biochemistry Jay Thelen, Ph.D. and his team at MU. In July, Yield10 appointed Dr. Thelen to its Scientific Advisory Board.

Submitted “Am I regulated?” Letter to USDA-APHIS Covering Genome-edited Camelina. Yield10 recently submitted an “Am I Regulated?” letter to USDA-APHIS describing a triple combination trait stack consisting of the traits C3008a, C3008b and C3009 in Camelina. This multi-

trait approach to improve carbon flow in oil biosynthesis pathways is intended to result in increased seed oil content and potentially improved oil stability. If the trait stack is deemed non-regulated by the agency, field testing of the trait stack could begin in the U.S. in 2019.

Published and Presented Research Highlighting Technology Platform and Yield Traits. Yield10 published research describing the development of the Company's Camelina Platform as a model crop for novel yield trait discovery and presented research at the Plant Biology 2018 conference highlighting two case studies describing the use of modeling carbon metabolism in crops to project crop yield gene targets and outcomes.

SECOND QUARTER 2018 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 second quarter of 2018 with \$9.7 million in unrestricted cash, cash equivalents and short-term investments. The Company's net cash used in operating activities during both the second quarter of 2018 and the second quarter of 2017 was \$1.9 million.

The Company anticipates net cash usage of approximately \$9.0 million to \$9.5 million during its fiscal year ending December 31, 2018, including final payments of \$0.5 million made during the first half of 2018 related to its restructuring that was undertaken during 2016.

For the second quarter ending June 30, 2018, the Company reported a net loss of \$2.4 million, or \$0.24 per share. The Company reported a net loss of \$2.7 million or \$0.96 per share, for the second quarter of 2017.

Total government grant revenue for both the second quarter of 2018 and the second quarter of 2017 was \$0.3 million. Grant revenue for the second quarter of 2018 was derived primarily from the Company's subcontract with Michigan State University. Approximately \$0.1 million of the grant revenue was earned from the Company's grant with the U.S. Department of Energy that is in the process of winding down. Research and development expenses for the three months ending June

30, 2018 and June 30, 2017 were \$1.3 million and \$1.1 million, respectively. The variance is primarily the result of increased employee compensation and benefits expense, including the hiring of additional research personnel during 2018. General and administrative expenses for the three months ending June 30, 2018 and June 30, 2017 were \$1.5 million and \$1.9 million, respectively. The \$0.4 million decrease is primarily the result of a one-time charge to recognize deferred equity offering costs of \$0.6 million during the second quarter of 2017.

For the six months ending June 30, 2018, the Company reported a net loss of \$4.7 million, or \$0.48 per share, as compared to a net loss of \$4.8 million, or \$1.69 per share, for the six months ending June 30, 2017.

Total research grant revenue for the six months ending June 30, 2018 was \$0.3 million, compared to \$0.6 million for the six months ending June 30, 2017. Research and development expenses and general and administrative expenses were \$2.3 million and \$2.7 million, respectively, for the six months ending June 30, 2018 compared to \$2.2 million and \$3.1 million, respectively, for the six months ending June 30, 2017.

Conference Call Information

Yield10 Bioscience management will host a conference call today at 4:30 p.m. (ET) to discuss the results for the second quarter of 2018. The Company also will provide an update on the business and answer questions from the investor community. A live webcast of the call with slides can be accessed through the Company's website at www.yield10bio.com in the investor relations 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 13680926. The replay will be available for 14 days. In addition, the webcast will be archived on the Company's website in the investor relations section.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is focused on developing new technologies 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. Yield10 is leveraging its technology platforms and unique knowledge base to design 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 Camelina, canola, soybean and rice. 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 research and development, collaborations, intellectual property, the reproducibility of data from field tests, the translation of yield improvements from Camelina to other crops, the potential to produce improvements in seed yield and oil content, 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 Company's cash position, cash forecasts, and 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.

Yield10 Inquiries:

Lynne H. Brum, (617) 682-4693, LBrum@yield10bio.com

Investor Relations Contact:
Amato and Partners, LLC
admin@amatoandpartners.com

Media Inquiries:
Eric Fischgrund, FischTank Marketing and PR
eric@fischtankpr.com

(FINANCIAL TABLES FOLLOW)

YIELD10 BIOSCIENCE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
UNAUDITED
(In thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Revenue:				
Grant revenue	\$ 285	\$ 293	\$ 345	\$ 617
Total revenue	285	293	345	617
Expenses:				
Research and development	1,253	1,138	2,347	2,247
General and administrative	1,452	1,866	2,725	3,142
Total expenses	2,705	3,004	5,072	5,389
Loss from operations	(2,420)	(2,711)	(4,727)	(4,772)
Other income (net):				
Interest income, net	45	2	80	3
Other expense, net	(15)	(18)	(33)	(50)
Total other income (expense), net	30	(16)	47	(47)
Net loss	\$ (2,390)	\$ (2,727)	\$ (4,680)	\$ (4,819)
Basic and diluted net loss per share	\$ (0.24)	\$ (0.96)	\$ (0.48)	\$ (1.69)
Number of shares used in per share calculations:				
Basic & Diluted	9,991,460	2,849,069	9,845,902	2,844,492

YIELD10 BIOSCIENCE, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
UNAUDITED
(In thousands, except share and per share amounts)

	June 30, 2018	December 31, 2017
Assets		
Current Assets:		
Cash and cash equivalents	\$ 3,168	\$ 14,487
Short-term investments	6,486	—
Accounts receivable	29	54
Unbilled receivables	43	65
Prepaid expenses and other current assets	378	311
Total current assets	10,104	14,917
Restricted cash	332	317
Property and equipment, net	1,477	1,539
Other assets	98	109
Total assets	\$ 12,011	\$ 16,882
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	\$ 34	\$ 76
Accrued expenses	1,455	2,299
Total current liabilities	1,489	2,375
Lease incentive obligation, net of current portion	941	1,005
Total liabilities	2,430	3,380
Commitments and contingencies		
Stockholders' Equity:		
Series A Convertible Preferred Stock (\$0.01 par value per share); 5,000,000 shares authorized at June 30, 2018 and December 31, 2017; 0 and 1,826 shares issued and outstanding at June 30, 2018 and December 31, 2017, respectively	—	818
Common stock (\$0.01 par value per share); 60,000,000 shares and 40,000,000 shares authorized at June 30, 2018 and December 31, 2017, respectively; 9,991,977 and 9,089,159 shares issued and outstanding at June 30, 2018 and December 31, 2017, respectively	100	91
Additional paid-in capital	357,013	355,431
Accumulated other comprehensive loss	(99)	(85)
Accumulated deficit	(347,433)	(342,753)
Total stockholders' equity	9,581	13,502
Total liabilities and stockholders' equity	\$ 12,011	\$ 16,882

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

	Six Months Ended June 30,	
	2018	2017
Cash flows from operating activities		
Net loss	\$ (4,680)	\$ (4,819)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation	96	106
Charge for 401(k) company common stock match	70	46
Stock-based compensation	596	663
Changes in operating assets and liabilities:		
Accounts receivables	54	(147)
Due from related party	—	1
Unbilled receivables	22	26
Prepaid expenses and other assets	(56)	542
Accounts payable	(42)	14
Accrued expenses	(884)	(165)
Contract termination obligation and other long-term liabilities	(64)	(553)
Net cash used for operating activities	(4,888)	(4,286)
Cash flows from investing activities		
Purchase of property and equipment	(34)	—
Purchase of short-term investments	(7,986)	—
Proceeds from the sale and maturity of short-term investments	1,500	—
Net cash used for investing activities	(6,520)	—
Cash flows from financing activities		
Proceeds from warrants exercised	124	—
Taxes paid related to net share settlement upon vesting of stock awards	(6)	(12)
Net cash provided by (used for) financing activities	118	(12)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(14)	—
Net decrease in cash, cash equivalents and restricted cash	(11,304)	(4,298)
Cash, cash equivalents and restricted cash at beginning of period	14,804	7,741
Cash, cash equivalents and restricted cash at end of period	\$ 3,500	\$ 3,443
Supplemental disclosure of non-cash information:		
Offering costs remaining in accrued expenses	\$ —	\$ 146
Reversal of deferred financing costs related to Aspire stock purchase agreement	\$ —	\$ 450