

Yield10 Bioscience Researcher Dr. Meghna Malik to Present at the 4th CRISPR AgBio Congress 2020 Virtual Event

December 2, 2020

WOBURN, Mass., Dec. 02, 2020 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN), an agricultural bioscience company, today announced that Meghna Malik, Ph.D., Senior Director, will present at the 4th CRISPR AgBio Congress which is being held December 1-3, 2020 as a virtual event.

Dr. Malik's presentation is titled "Yield10 trait development: Using CRISPR to increase seed yield and oil content in Camelina." The presentation will be part of the "Expanding the CRISPR scope to more challenging agricultural crops" session which is scheduled at 6:00 pm EST on Dec. 2. Dr. Malik will also participate in a Virtual Roundtable titled "Analyzing the next generation of promising target traits: Revolutionizing the future of agriculture," which is scheduled at 3:00 pm EST on Dec. 3.

In her presentation, Dr. Malik will discuss the approach taken by Yield10 and its wholly owned subsidiary, Metabolix Oilseeds, to deploy novel traits in the oilseed crops *Camelina sativa* and canola using CRISPR genome-editing to increase seed yield and oil content. The presentation describes the simultaneous editing of three gene targets (C3008a, C3008b, C3009) designed to reduce the oil turnover during seed maturation. To do this, the researchers simultaneously edited nine genes in Camelina using CRISPR. Different combinations of edits were obtained and characterized. Dr. Malik will present data obtained from a triple edited Line E3902 showing a five percent increase in total oil produced per plant in greenhouse studies and a calculated 15 percent increase in total oil produced per hectare in field tests conducted in 2019.

Dr. Malik will also highlight Yield10's work with the novel oil content trait C3007, which disrupts BADC, a novel negative regulator of acetyl-CoA carboxylase (ACCase), a key enzyme in fatty acid biosynthesis. Yield10 has obtained stable edits for select *badc* genes and gene combinations deployed in Camelina and canola. In greenhouse studies, certain combinations of CRISPR-edited BADC targets deployed in Camelina have shown an increase in oil produced per plant. In 2020, Yield10 conducted its first field trials of BADC (C3007) edited Camelina lines in the U.S. Yield10 has also produced C3007 canola lines where an increase in oil produced per plant has been observed in greenhouse studies.

"Our presentation highlights our success deploying multiple CRISPR edits in a complex genome crop like Camelina and translating the greenhouse research to field testing to obtain the positive outcome of increasing oil content," said Meghna Malik, Ph.D., Senior Director of Metabolix Oilseeds, the Canadian subsidiary of Yield10 Bioscience. "Our research with these CRISPR-edited Camelina and canola lines is intended to increase seed oil content to maximize oil yields per acre. We also see the potential to combine or stack these CRISPR edits with oil composition traits, such as Camelina omega-3 (DHA+EPA), to increase yield and hence the economic value of engineered crops. We look forward to reporting further results for these traits as our work continues to progress in 2021."

Yield10 recently announced a <u>collaboration</u> with Rothamsted Research to develop advanced technology for producing omega-3 (DHA+EPA) nutritional oils in Camelina.

Learn more about the conference at the 4th CRISPR AgBio Congress website. A copy of Dr. Malik's slide deck is available on the Yield10 Bioscience website.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is an agricultural bioscience company developing crop innovations for sustainable global food security. The Company uses its "Trait Factory" including the "GRAIN" big data mining trait gene discovery tool as well as the Camelina oilseed "Fast Field Testing" system to develop high value seed traits for the agriculture and food industries. As a path toward commercialization of novel traits, Yield10 is pursuing a partnering approach with major agricultural companies to drive new traits into development for canola, soybean, corn, and other commercial crops. The Company is also developing improved Camelina varieties as a platform crop for the production and commercialization of nutritional oils, proteins, and PHA biomaterials. The Company's expertise in oilseed crops also extends into canola, where it is currently field-testing novel yield traits to generate data to drive additional licensing opportunities. Yield10 is headquartered in Woburn, MA and has an Oilseeds Center of Excellence in Saskatoon, Canada.

For more information about the company, please visit www.yield10bio.com, or follow the Company on Twitter, Facebook and LinkedIn.

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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, including, without limitation, the use of the Company's technology to successfully identify targets and develop systems using CRISPR genome editing for increasing crop yield and oil content, the timing for reporting of further results, the ability of greenhouse studies to predict yield results in field tests, and progress by Yield10 in driving increases in oil biosynthesis and developing its products, 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 assumes no obligation to update

any forward-looking information contained in this press release or with respect to the matters described herein.

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