Yield10 Bioscience Chief Science Officer Dr. Kristi Snell to Highlight Unique Aspects of the Company's GRAIN Technology Platform to Identify Novel Traits for Crops at the 3rd Precision CRISPR & NBT AgBio Congress

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WOBURN, Mass., June 24, 2019 (GLOBE NEWSWIRE) -- 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 announced that Kristi Snell, Ph.D., Yield10's chief science officer, will present at the 3[rd]Precision CRISPR & NBT AgBio Congress which is being held June 24-26 in San Diego, California.

Dr. Snell will present a talk entitled "Exploring Novel Approaches for Gene Selection and Trait Validation in Crops." The presentation will be part of the "Novel Approaches Beyond Genomics to Improve Yield, Productivity and Resistance" session which is scheduled from 11:10 am to 12:40 pm local time on June 26.

In her presentation, Dr. Snell will discuss the components of Yield10's proprietary GRAIN (Gene Ranking Artificial Intelligence Network) platform, highlighting recent advancements. GRAIN integrates advanced metabolic flux modeling with transcriptome network analysis to enable researchers to make predictions about which biochemical reactions in a plant are most likely to achieve targeted performance improvements and identify key regulatory genes to modify to achieve the trait of interest. This approach is leading to the identification of novel targets and combinations of targets for increasing performance in crops.

Dr. Snell will describe several traits that Yield10 has identified using GRAIN and highlight a case study demonstrating the use of the GRAIN platform to identify and rank potential regulatory genes predicted to affect yield and/or oil content in an oilseed crop. In the case study, the modeling was used to generate a ranked list of transcription factors that may impact oil and/or seed yield using expression data from the oilseed crop *Camelina sativa.* Several of the highest ranked targets generated by the model are known regulators of seed oil content or seed yield, validating the use of the model to identify potentially high value targets. In addition, the model generated and ranked several novel targets, currently uncharacterized plant genes that may represent new leads and intellectual property white space. Researchers at Yield10 believe this approach for new trait discovery can be applied to the key commercial crops including corn, soybean, and canola, as well as numerous other crops where genomic information is available.

"Our presentation highlights exciting advances we have made developing our GRAIN technology platform to identify high-value novel gene targets to improve crop performance," said Kristi Snell, Ph.D., chief science officer of Yield10 Bioscience. "We are currently also developing ways to utilize our GRAIN platform to identify novel targets for improving compositional traits in crops, where improving oil or protein content would enhance the nutritional profile of the crop. We envision that our approach utilizing our GRAIN platform may provide the basis for forming collaborations with agricultural industry leaders for crops of commercial interest."

Learn more about the conference at the CRISPR & NTB AgBio Congress 2019 website. On June 26, a copy of Dr. Snell's slide deck will be available on the Yield10 Bioscience investor relations website.

AboutYield10 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 about the company, please visit www.yield10bio.com.

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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 ability of the GRAIN platform to identify novel targets and combinations of targets that will increase performance in crops and to apply this approach to key commercial crops including corn, soybean, and canola, as well as numerous other crops where genomic information is available, and the ability of the platform to provide the basis for forming collaborations with agricultural industry leaders for crops of commercial interest**,** 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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