



Yield10 Bioscience Chief Science Officer Dr. Kristi Snell to Present on Advancements in Producing PHA Bioplastic in Camelina at the CROPS 2022: Improving Agriculture Through Genomics Conference

June 15, 2022

WOBURN, Mass., June 15, 2022 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN) ("Yield10" or the "Company"), an agricultural bioscience company, today announced that its Chief Science Officer Dr. Kristi Snell will present during the CROPS 2022: Improving Agriculture Through Genomics Conference taking place June 13 through June 16, 2022 in Huntsville, Alabama.

Dr. Snell will make a presentation on Wednesday, June 15, during the session entitled "Plant Engineering for Increased Sustainability" scheduled for 9:10 am – 10:50 am CT (10:10 am – 11:50 am ET). Her presentation entitled "Breakthroughs in Plant Based Polyhydroxybutyrate (PHB) Production" will describe insights into the plant biology of Camelina that led to the successful engineering of a bacterial pathway for producing PHB in the cytosol of Camelina seed.

Yield10 researchers have conducted a research program aimed at producing PHA bioplastics in the seed of the Camelina plant as a sustainable, low-cost method for producing this material. Yield10 developed a new technology solution for deploying the PHB pathway and filed a patent application in 2019. Using this approach, Yield10 obtained Camelina plants showing up to 10.2 percent PHB in seed that had good emergence and survival in growth chambers. Subsequent field tests with prototype Camelina PHB containing lines have shown approximately six percent PHB in the seed in two consecutive years. In 2022, Yield10 is planting at acre-scale the leading plant line in order to harvest PHB for product prototyping, sampling and other business development activities. The development of elite PHA Camelina lines with yields in the 10 to 20 percent range is ongoing as well as the engineering of PHA copolymers in Camelina.

"Our team has leveraged advanced tools in synthetic biology to successfully demonstrate proof of concept for producing PHA bioplastics in Camelina seed," said Kristi Snell, Ph.D., Chief Science Officer of Yield10 Bioscience. "This spring we are growing prototype PHA Camelina at the acre-scale and plan to extract the PHA from seed for business development use. We have also deployed PHA in winter Camelina lines and will test those for the first time in the field later this year. As we move the program ahead, we are pursuing multiple strategies to achieve our goal of reaching PHA yields of 10 to 20 percent in Camelina seed from field grown plants."

Learn more about the CROPS 2022: [Improving Agriculture Through Genomics](#) conference on the conference website. A copy of Dr. Snell's slide deck is available on the Yield10 Bioscience [investor relations website](#).

Background on PHA Bioplastics

Global plastic waste is estimated at 380 million metric tons per year. The largest market for plastics today is for packaging materials, and it accounts for nearly half of all plastic waste generated globally, where most of it is never recycled or incinerated. We believe there may be significant market opportunity for producing PHA biomaterials in Camelina in the future. PHA biomaterials (PHAs) are natural microbial high molecular weight polymeric storage polymers. These polymers are natural polyesters and can be recovered from the microbes that produce them and processed using standard plastics processing equipment into a range of product forms. The production of PHA bioplastics in Camelina could represent an entirely new market opportunity for farmers. This opportunity could provide economic returns for farmers to justify large acreage adoption of Camelina as a cover crop and enable the low-cost production of this product for new markets including water treatment and sustainable biodegradable plastics replacement applications.

About *Camelina sativa*

Camelina sativa, commonly known as Camelina or false flax, is an annual oilseed plant in the mustard family that is native to Europe. Camelina has the potential to replicate the development of modern canola from rapeseed on an accelerated timeline based on modern technologies, including genomics and genome editing. Additionally, Camelina grows on marginal lands, displays early maturation, has enhanced drought and cold tolerance, and requires fewer inputs than other oilseed crops. With social conscience and sustainability in mind, Yield10 is leveraging its innovations in Camelina to use it as a platform crop for producing low-carbon feedstock oil for renewable fuel; omega-3 nutritional oils; high-protein meal; and PHA bioplastic.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is an agricultural bioscience company that is using its differentiated trait gene discovery platform, the "Trait Factory", to develop improved Camelina varieties for the production of proprietary seed products, and to discover high value genetic traits for the agriculture and food industries. Our goals are to efficiently establish a high value seed products business based on developing superior varieties of Camelina to produce biofuel feedstock oils, PHA bioplastics and omega-3 (DHA+EPA) oils and to license our yield traits to major seed companies for commercialization in major row crops, including corn, soybean and canola. 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 Company's plans and expectations related to the development, engineering, growing and harvesting of Camelina, including PHA yield goals, and the Company's expectations related to the economic opportunity of Camelina and PHA bioplastics, 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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