NEWS

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UWM startup out to prevent disease in fruit trees without antibiotics

MILWAUKEE _ T3BioScience LLC has obtained a patent for compounds and methods to safely reduce virulence in the bacteria that cause fire blight disease in fruit. The company is developing a product that effectively blocks the genetic ability of pathogen, *E. amylovora*, to infect the fruit trees, eliminating the need for antibiotic treatment.

The University of Wisconsin-Milwaukee Research Foundation licensed the patent exclusively to T3Bioscience and is also a shareholder in the company.

This is the Milwaukee-based company's first product and the goal is to have it market-ready within two to three years, said CEO Daniel Burgin. The company's method of disabling bacteria was developed by Ching-Hong Yang, a UWM professor of biological sciences and T3BioScience's chief scientific officer. Ultimately, it could potentially be used to treat human infections.

"Our immediate objective is to help reduce excessive use of antibiotics in agriculture, a treatment that contributes to antibiotic resistance in humans," Burgin said.

T3Bioscience's product also will fill a gap created in the next few years when use of two commercially available antibiotics to control the disease will be prohibited in the United States.

"Our product is synthetic and not an antibiotic," Burgin said. "This offers farmers the means to fight the devastating fire blight diseases with an effective product that is not at risk of being banned."

Fire blight is one of the most destructive diseases of apple and pear trees in the United States, according to the Department of Agriculture.

T3Bioscience is conducting the last field test on apples and pears this spring. The past two field tests have proven that the product is comparable with current commercialized antibiotics used by farmers across the U.S.

T3 Bioscience is one of several startups in the portfolio of the UWM Research Foundation.

"Dr. Yang's innovative research is creating new products for fighting infectious diseases in both agriculture and humans, addressing some of the 21st century's current biggest concerns," said Brian D. Thompson, UWM Research Foundation president.

A scientific article with contributions by Yang on this topic will appear later in 2016 in the journal *Molecular Plant Pathology*.
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About T3Bioscience:
T3Bioscience LLC specializes in developing antivirulence drugs for fighting the gram-negative bacterial pathogens in humans and crops by targeting the type 3 secretion system of bacterial virulence. Established in 2013, the company's shareholders include the UWM Research Foundation and Duke Philanthropies. Chief Scientific Officer, Dr. Ching-Hong Yang, is applying more than 15 years of microbiological research to treating bacterial infection without increasing resistance to conventional antibiotics.

About UWM Research Foundation:
The UWM Research Foundation Inc. is a nonprofit corporation that supports research, innovation and entrepreneurship at UWM through a variety of programs, including patenting and licensing. www.uwmresearchfoundation.org

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