T3BIOSCIENCE

Press Release

T3BioScience obtains US Patent for methodology in fighting fire blight disease in apples and pears, with aim to reduce over-excessive use of antibiotics in agriculture

Milwaukee, Wisconsin, the 14th March 2016 – **T3BioScience** has obtained a US Patent for compounds and methods for safely reducing virulence in bacteria of a gram-negative pathogen *E. amylovora*. The new methodology does not harm the natural microbial flora of the treated apples and pears.

T3Bioscience' objective is to help reduce over-excessive use of antibiotics in agriculture that also greatly contributes to antibiotic resistance in humans.

The patent comes at time when in June 2016 the Milwaukee based laboratory is entering with farmers its third and last planned field test on apples and pears, in hopes of confirming the efficiency of its lead compound to prevent infection by *E. amylovora*, which results in the devastating fire blight disease. The past two field tests have proven T3BioScience's product to be comparable with current commercialized antibiotics used by farmers across the US.
The new lead compound's key differentiating factor is, rather than following the conventional antibiotic treatment of eliminating the bacteria, its capability to disable a pathogen's genetic ability to cause the infection in the first place.

T3Bioscience's Dr. Ching-Hong Yang (middle) receives this year's Patent Recognition Award by UWM Research Foundation on 1st March 2016. In this picture joined by Bill Berezowitz (right), Chairman of the UWM Research Foundation & Vice President of Imaging Subsystems at GE Healthcare and Johannes Britz (left), Provost & Vice Chancellor, University of Wisconsin, Milwaukee.

The new patent has been assigned to the **UWM Research Foundation in Milwaukee**, which is a shareholder in T3BioScience. Of the patent's three inventors, Dr. Ching-Hong Yang, T3Bioscience's Scientific Officer and Professor of Microbiology at University of Wisconsin, Milwaukee, was given the *Patent Recognition Award* at Partner's Reception during UWM Research Foundation's annual event on 1st March 2016.

"I am very pleased that we received this patent at a time where we are about to prove in real life circumstances the success of our synthetic lead compound in the upcoming field tests on apples and pears in June," says Professor Yang. "We all know fire blight is a very serious issue and a constant looming threat for farmers' livelihood in the US and other parts of the world. We truly hope that our lead compound will not only help US farmers with a successful fight against the disease, but will also indirectly contribute to the fight against antibiotic resistance in humans, partially resulting from antibiotics' use in agriculture."

"The UWM Research Foundation has been supporting Dr. Yang's inventions since 2007 and T3Bioscience since its inception in 2013. Dr. Yang's innovative research is creating new products for fighting infectious diseases in both agriculture and humans, hence addressing some of the 21st century's current biggest concerns," confirms Brian D. Thompson, President of the UWM Research Foundation. "T3 Bioscience is one of several innovative startups in the portfolio of the UWM Research Foundation and we are proud to celebrate the issuance of this patent during this year's Partner's Reception and Patent Recognition Award Night.

Due to fire blight, in the US nationally 488.2 million pounds of organic apples (20,000 acres) and additional 43.8 million pounds of organic pears (2,145 acres) are at risk according to an Organic Production Survey, Census of Agriculture 2007, issued by the US Department of Agriculture (USDA).

The approved Patent No. US9,260,382 B2 results from four years of research & development efforts by the three inventors, Dr. Ching-Hong Yang, Dr. Xin Chen and Dr. Eric J Toone.
T3BioScience retains the exclusive right of the patent granted by the patent's assignee, UWM Research Foundation.

A scientific article by the title of *Grand Challenges* with contributions by Dr. Ching-Hong Yang on this topic will appear later in 2016 in the Journal "Molecular Plant Pathology" and will be available online.

About T3Bioscience:

T3Bioscience LLC operates its laboratory in Milwaukee WI and is specialized in developing anti-virulence drugs fighting the gram-negative T3SS pathogen in humans and agriculture. Established in 2013, the Company operates in a unique and highly efficient niche environment within the facilities of University of Wisconsin. With a small team of researchers, Dr. Yang's is building on 15+ years of microbiological research in fighting virulence in bacteria leading to humans' increasing resistance to conventional antibiotics.
The Company's Chief Scientific Officer, Dr. Yang, also leads the Faculty for Microbiology at the University of Wisconsin, Milwaukee.

T3Bioscience is supported and sponsored amongst other private shareholders by the UWM Research Foundation, Milwaukee and Duke Philanthropies, Durham.

For further inquires please contact: dburgin@t3biosci.com

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

For further inquires please contact: briant@uwmfdn.org