
For Immediate Release

BIOTEC and Thermo Fisher Scientific to Collaborate on Study of Natural Products for Agricultural Applications

SAN JOSE, Calif., and BANGKOK – (17 June 2015) – Thermo Fisher Scientific, Inc., the world leader in serving science, and National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology have signed a memorandum of understanding for research collaboration.

Through this collaboration, researchers from BIOTEC and Thermo Fisher will employ a wide range of analytical tools including state-of-the-art high-resolution accurate mass spectrometry (HRAM) system to identify bioactive metabolites derived from microbes. Together, the companies aim to expedite the process of novel metabolite discovery and identify bioactive compounds against fungal pathogens that damage economically important crops in Thailand. The bioactive compounds to be discovered in this project could potentially replace chemical fungicides usage in agriculture. This will not only result in more environmentally friendly agricultural products, but also improvement of the product quality and safety for consumers.

Thailand possesses great microbial diversity and abundance, which used in various applications including medicine, petrochemicals, biotechnology and agriculture. However, the use of microbes as a source of commercial bioactive natural products has not been fully realized, due to the cost and difficulty of traditional natural product discovery and identification processes.

Present in the signing ceremony were Dr. Kanyawim Kirtikara, Executive Director of the National Center for Genetic Engineering and Biotechnology (BIOTEC) and Mr. Pang Sze Hann, vice president and general manager for Southeast Asia and Taiwan at Thermo Fisher.

“Thermo Scientific Orbitrap mass spectrometry technology has been a game changing analytical innovation since its introduction in 2005,” said Mr. Hann. “Based on the significant volume of publications in *Science* and *Nature*, many early adopters have managed to propel their scientific ventures forward. The application of this technology in system biology study such as metabolomics has led to advancements in various life science and biomedical fields. Its application to Asia-centric natural products research has not yet been fully realized. We look forward to this collaboration and its future contributions to science and the wider community.”

Dr. Kanyawim Kirtikara said, “The utilization of biodiversity has always been central to BIOTEC interest. From the early days of BIOTEC, we recognized the significance of natural products from microbes and initiated the natural product discovery program by establishing the research infrastructure in this area in Thailand. After two decades, our research program has continually progressed to demonstrate that microorganisms in Thailand have immense potential for bioactive compound mining; and that we have the research capacity to advance to the next level. This collaboration will enable BIOTEC to acquire natural product-specific metabolome profiles using Thermo Fisher’s state-of-the-art high resolution accurate mass spectrometry and its expertise in integrating various techniques in analytical chemistry and bioinformatics for fast separation and automated data analysis. Furthermore, this collaboration will provide opportunities for BIOTEC researchers to learn from scientists at Thermo Fisher, one of the world largest technology companies with extensive expertise in metabolomics. Last but not least, I would like to share my hope that this collaboration is a beginning of a long and prosperous relationship between Thermo Fisher Scientific and BIOTEC.”

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About BIOTEC

The National Center for Genetic Engineering and Biotechnology (BIOTEC), founded in 1983, is one of four technology centers under the auspices of the National Science and Technology Development Agency (NSTDA), an autonomous government agency. The Center is a leading research institute in Thailand and the region, with over 30 laboratories and 160 principal scientists conducting basic and

applied research covering a wide spectrum from agricultural science to biomedical science and environmental science. BIOTEC has six research units located at Thailand Science Park and 10 specialized laboratories situated in universities and government agencies across the country. More information about BIOTEC is available at <http://www.biotec.or.th>.

About Thermo Fisher Scientific

Thermo Fisher Scientific Inc. is the world leader in serving science, with revenues of \$17 billion and approximately 50,000 employees in 50 countries. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics and increase laboratory productivity. Through our premier brands – Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive support. For more information, please visit www.thermofisher.com.

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Press Contact:

National Center for Genetic Engineering and Biotechnology (BIOTEC)

Ms. Udomrat Vatanakun

Public Relations Section Manager

Tel: (66-2) 564 6700 Ext 3324

Fax: (66-2) 564 6572

E-mail: udomrat.vat@biotec.or.th

Thermo Fisher Scientific

Ms. Marcia Goff

Senior Manager, Group Communications

Tel: +1 508.902.7041

E-mail: marcia.goff@thermofisher.com