



## **M.R. Jisnuson Svasti Outstanding Protein Scientist of Thailand Award 2017**

**James Robert Ketudat Cairns**

The M.R. Jisnuson Svasti Outstanding Protein Scientist of Thailand Award 2017 is awarded to James Robert Ketudat Cairns, Professor of Biochemistry, School of Chemistry, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Professor Cairns was born in 1964 and has worked in Thailand since 1995. He has performed outstanding research, especially in understanding the structure and function of glycosidase enzymes, including delineating the protein coding sequence, cloning, recombinant expression, functional characterization, investigation of three-dimensional structure, and bioinformatics. He is a leader in protein crystallography in Thailand, having contributed some 39 three-dimensional structures to PDB, including those of glycoside hydrolases (GH) from families GH1 ( $\beta$ -glucosidases), GH 3 (exoglucanases), GH 19 (chitinases), GH35 ( $\beta$ -galactosidases), and GH116 ( $\beta$ -glucosidases). He has identified novel activities in several GH enzymes present in rice, such as phytohormone and monolignol  $\beta$ -glucosidases, disaccharidases and transglucosidases. He also collaborates with Professor M.R. Jisnuson Svasti in studying protein defects that lead to inborn errors of metabolism, such as mutations affecting methylmalonyl-CoA mutase, glucocerebrosidase and  $\alpha$ -iduronidase. This helps genetic disease researchers to understand the structural effects of mutations to these enzymes, thereby helping to improve the awareness of the importance of protein structure.

Professor Cairns has helped to establish protein structural biology research in Thailand. In 2000, he organized the First Southeast Asian Protein Crystallography Workshop with Robert C. Robinson at Suranaree University of Technology. He later helped with several protein crystallography workshops organized by the Synchrotron Light Research Institute, as well as workshops in bioinformatics and protein NMR as tools to study proteins.

In addition, Professor Cairns is one of the founders of the Protein Society of Thailand, and is currently a member of the steering committee. He has been involved as a member of the Organizing Committee of every Protein Society of Thailand conference, and has represented the society in the Asia Pacific Protein Association. This year, he serves as the Chairman of the Organizing Committee of the 5<sup>th</sup> APPA/12<sup>th</sup> PST Conference, 2017.

For his excellent research in protein science, his promotion of protein crystallography in Thailand, and his important role in the development of the Protein Society of Thailand, the evaluation committee has recommended that Professor James R. Ketudat Cairns receive the M.R. Jisnuson Svasti Outstanding Protein Scientist of Thailand Award for 2017.

Emeritus Professor M.R. Jisnuson Svasti.  
President, Protein Society of Thailand

12<sup>th</sup> June 2017