

Annual Symposium of TRF Research Team Building Grant (Senior Scholar)

“Enzyme Catalysis”

October 19, 2015

Stang Mongkolsuk Conference Room, Stang Mongkolsuk Building
Faculty of Science, Mahidol University

- 8:00-8:30 Registration
8:30-8:45 Welcome Speech (Prof. Dr. Skorn Mongkolsuk, Dean of Faculty of Science)
8:45-9:00 Opening Remarks (Professor Suthipun Jitpimolmard, M.D., F.R.C.P., Director of The Thailand Research Fund)
9:00-9:30 Overview of Research Progress
(Prof. Dr. Pimchai Chaiyen, TRF Senior Research Scholar 2013)
9:30-9:45 Coffee Break

Enzymes in Biomedicine

(Discussion leader: Dr. Jirundorn Yuvaniyama, Department of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)

- 9:45-10:15 Special Talk on Nobel Prize in Chemistry 2015*
“Mechanistic studies of DNA repair and impact on biomedicine”
Dr. Danaya Pakotiprapha, Department of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)
- 10:15-10:40 Antimalarial drug development and screening for *Plasmodium* serine hydroxymethyltransferase
(Dr. Ubolsree Lertsakulpanich, National Science and Technology Development Agency)
- 10:40-11:05 Molecular dynamics simulations toward the development of kinase inhibitors**
(Assist. Prof. Kiattawee Choowongkomon, Department of Biochemistry, Faculty of Science, Kasetsart University)
- 11:05-11:25 Protein and ligand dynamics of human serine hydroxymethyltransferase
(Ms. Watcharee Amornwatcharapong, Department of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)

Enzymes for Biocatalysis and Biorefinery
(Discussion leader: Dr. Ruchanok Tinikul, Mahidol University,
Nakhonsawan Campus)

11:25-11:50 Cofactor Identification and Ligand Binding Affinity of Metal-Dependent Aldolase
(Dr. Somchart Maenpuen, Department of Biochemistry, Burapha University)

11:50-12:10 Flavin-dependent dehalogenase for detoxification of herbicides and pesticides
(Mr. Panu Pimviriyakul, Department of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)

12:10-12:30 Succinic semialdehyde dehydrogenase (SSADH) for production of succinic acid
(Ms. Jittima Phonbuppha, Department of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)

12:30-13:30 Lunch

13:30-15:00 Poster Talks (2 min for each talk) and Poster Discussion

Fundamental in Enzyme Catalysis
(Discussion leader: Assist. Prof. Dr. Jeerus Sucharitakul, Department of Biochemistry, Faculty of Dentistry, Chulalongkorn University)

15:00-15:25 Mechanism of aromatic hydroxylation revealed by quantum mechanical calculations
(Assist. Prof. Dr. Panida Surawatanawong, Dept of Chemistry, Faculty of Science, Mahidol University)

15:25-15:50 Investigation of redox enzymes by electrochemistry**
(Assoc. Prof. Dr. Albert Schulte, Dept of Chemistry, Suranaree University of Technology)

15:50-16:15 Inversion of substrate specificity in the oxygenase component of p-hydroxyphenylacetate hydroxylase
(Dr. Pirom Chenprakhon, Institute of Innovative Learning, Mahidol University)

16:15-16:30 Summary and Closing
(Prof. Dr. Pimchai Chaiyen, Dept of Biochemistry and Center for Excellence in Protein and Enzyme Technology, Faculty of Science, Mahidol University)

* Special Lecture co-hosted by Center for Excellence in Protein and Enzyme Technology (CPET)

** Invited lectures