

PACHARA SATTAYAWAT

PERSONAL DETAILS

Date of Birth – August 12th, 1992

Email address – p.sattayawat16@imperial.ac.uk, diamond_honest@hotmail.com

EDUCATION

2016 - 2020

PhD, Life Sciences (Metabolic Engineering/Synthetic Biology), Faculty of Natural Sciences, Imperial College London, United Kingdom

2014 - 2016

Master of Science (Applied Microbiology), Faculty of Science, Chiang Mai University, Thailand (GPAX 4.00)

2009 - 2013

Bachelor of Science (Biology), Faculty of Science, Chiang Mai University, Thailand (First Class Hons, GPAX 3.98)

SCHOLARSHIP

2010-2020

Development and Promotion of Science and Technology Talents Project (DPST) from Ministry of Education, Thailand

AWARDS

2014 Recipient of Professor Dr. Tab Nilanidhi Outstanding Graduate Award

2013 Recipient of Distinguished Overall Academic Record Award in Biology Program (GPAX 3.98), Chiang Mai University

2013 Recipient of Best Final Year Project Poster Presentation (Section Biology), Faculty of Science, Chiang Mai University

2012 Annual Academic Achievement Award (GPAX 3.97), Chiang Mai University

2011 Annual Academic Achievement Award (GPAX 4.00), Chiang Mai University

2010 Certificate for Winning Democracy Essay from US consul, Chiang Mai, Thailand

2010 Annual Academic Achievement Award (GPAX 4.00), Chiang Mai University

2009 Recipient of Professor Dr. Tab Nilanidhi Outstanding Academic record for a first-year student in Science Program

PUBLICATIONS

Rodrussamee, N., **Sattayawat, P.**, & Yamada, M. (2018). Highly efficient conversion of xylose to ethanol without glucose repression by newly isolated thermotolerant *Spathaspora passalidarum* CMUWF1-2. *BMC Microbiol*, 18(1), 73. doi:10.1186/s12866-018-1218-4.

Sattayawat, P., Yunus, I.S., & Jones, P.R. (2020). Bioderivatization as a concept for renewable production of chemicals that are toxic or poorly soluble in the liquid phase. *PNAS*, available online- <https://doi.org/10.1073/pnas.1914069117>.

PATENTS

Patent application filed (2019) by Imperial College London based on PhD research outcomes

PRESENTATIONS

Tippawan Singtripop, Jatupol Kumpuansai, **Pachara Sattayawat**, Methi Watiktinnakorn, Nilita Mukjang, Phaivit Laphyai. Karyotyping of Bamboo borer (*Omphisa fuscidentalis*), the summer project presentation of Development and Promotion of Science and Technology Talents Project (DPST), Science Achievement Scholarship of Thailand and Junior Science Talent Project (JSTP) students, Faculty of Science, Chiang Mai University, 8th Sep 2011. **(Oral presentation)**

Pachara Sattayawat, Nadchanok Rodrussamee. Screening of Xylose-fermenting Yeasts for Ethanol Production, the 9th Conference on Science and Technology for Youths, Bangkok, Thailand, 30th May - 1st June 2014. **(Poster and oral presentation)**

Pachara Sattayawat, Nadchanok Rodrussamee, Thidarat Nimchua, Sakunnee Bovonsombut. Screening of Thermotolerant Yeast for Bioethanol Production, the 3rd National Meeting on Biodiversity Management in Thailand, Nan, Thailand, 15th - 17th June 2016. **(Poster presentation and conference paper)**

Pachara Sattayawat, Patrik R. Jones. Bioderivatization as a concept for bio-based production of toxic chemicals. Postgraduate Research Day of Department of Life Sciences 2019, Imperial College London, UK, 11-12th April 2019. **(Oral presentation)**

OVERSEAS RESEARCH EXPERIENCE

Yamaguchi University, Yamaguchi-shi, **Japan**, under the supervision of Prof. Dr. Mamoru Yamada and Assist. Prof. Dr. Tomoyuki Kosaka, 1st April - 30th June 2013.

Michigan State University, Michigan, **USA**, under the supervision of Assoc. Prof. Dr. David Hodge, 1st Oct 2015 - 27th Feb 2016.

TEACHING EXPERIENCE

Student demonstrator for Metabolic Network Engineering (MNE) practical sessions (2017-2019) – Imperial College London

Supervisor for undergraduate and Master's students under Microbial Metabolic Engineering (MME) group (2016-2020) – Imperial College London

RESEARCH INTERESTS

Metabolic engineering, synthetic biology, bacterial physiology, molecular biology, applied microbiology, biotechnology, and production of biofuels and bio-based chemicals

TECHNICAL EXPERIENCE

Molecular Biology: General molecular biology procedures including PCR, molecular cloning, BASIC assembly, CRISPR/Cpf1, Site-directed mutagenesis etc.

Metabolite analysis: HPLC and GC-MS

Microbial cultivation and fermentation: Yeast, bacteria and cyanobacteria

LANGUAGES

Thai: Native speaker

English: Full professional proficiency