

Technical Program

10th May 2018

8:30AM – 9:15AM	Registration
9.15AM – 9:30AM	Opening Address Dr Peter Nagler, Executive Director, Institute of Chemical and Engineering Sciences, A*STAR
Opening Keynote	
9:30AM - 10:15AM	<i>Towards a process model for continuous biotechnological processes</i> Andreas Bommarius
Session 1: Parts Design and Engineering	
10:15AM – 10:45AM	<i>Engineering new cascade biotransformations for bio-based fine chemical synthesis</i> Zhi Li
10:45AM – 11:15AM	<i>New Wine from Old Barrels: Repurposing Biology through Synthetic Biology</i> Wen Shan Yew
11:15AM - 11:45AM	<i>Green Fluorination Technology: Engineering of the Fluorinase and a Coupled Halogenase System</i> Ee Lui Ang
11:45AM – 1:00PM	Lunch / Poster session
1:00PM – 2:00PM	Lightning talks
Session 2: Foundational Tools I	
2:00PM – 2:30PM	<i>CRISPR Genome Editing</i> Jin-Soo Kim
2:30PM – 3:00PM	<i>Development and Evaluation of Novel CRISPR-Cas Genome Engineering Tools</i> Meng How Tan
3:00PM – 3:30PM	<i>Genome engineering by DNA base editing</i> Keiji Nishida
3:30PM – 4:00PM	Tea Break / Poster session
Session 3: Foundational Tools II	
4:00PM – 4:30PM	<i>Rapid Engineering of Yeast Cell Factories using Iterative Cycles of Design, Build, Test, and Learn on a Genome Scale</i> Huimin Zhao
4:30PM - 5:00PM	<i>Optogenetics for cell and cell-free Synthetic Biology</i> Chueh Loo Poh
5:00PM – 5:30PM	<i>From gene to activity – Exploring the potential of the Nestlé Culture Collection</i> Jeroen Muller
5:30PM – 6:00PM	<i>Bacterial cellular engineering by ribosome engineering</i> Kentaro Miyazaki

11th May 2018

8:30AM - 9:00AM Registration

Session 4: Therapeutics

9:00AM - 9:30AM *Programmable biological functionalities for autonomous cell therapeutics*
Matthew Chang

9:30AM - 10:00AM *Synthetic Xenobiology using genetic alphabet expansion*
Ichiro Hirao

10:00AM - 10:30AM *GSK's SynBio Efforts towards Sustainable Manufacturing*
Steven Tan

10.30AM - 11:45AM Young Investigator Session

11:45AM-1:00PM Lunch / Poster Session

Session 5: Cell Factories

1:00PM - 1:30PM *Understanding, design and rebuild of industrial superbugs for amino acid production*
Jibin Sun

1:30PM - 2:00PM *Lactic acid production using glucose or methane*
Ji-Sook Hahn

2:00PM - 2:30PM *A Generic Strategy to Maintain Stable, Multi-Member Microbial Consortia*
Kang Zhou

2:30PM - 3:00PM *Total industrial biosynthesis of astaxanthin and other natural products*
Simon Zhang

3:00PM - 3:30PM *Design and engineering of gas fermenting organisms for commercial scale production of fuels and chemicals from low-cost C1 feedstocks*
Michael Koepke

3:30PM - 4:00PM Tea Break / Poster session

Session 6: Natural Products Discovery and Development

4:00PM - 4:30PM *Discovery of New Molecules Via CRISPR/Cas9-Mediated Activation of Cryptic Gene Clusters*
Fong Tian Wong

4:30PM - 5:00PM *Blending Synthetic Chemistry with Synthetic Biology to Access Novel Natural Products*
Rebecca Goss

Closing Keynote

5:00PM - 5:45PM *Expanding the Metabolic Power of the Mined Natural Products Pathways*
Zixin Deng

5:45PM - 6:00PM Closing ceremony