

BESS Webinar Series on Innovations in Biochemicals and Bioprocesses

14-15 Dec 2020



Program

14 Dec 2020

9.00 – 9.10 am: Opening remarks by Dr. GENG Anli, President of BioEnergy Society of Singapore

9.10 – 10.00 am: Keynote speech:

- Prof. KONDO Akihiko, Dean, Professor, Graduate School of Science, Technology and Innovation, Kobe University, Kobe, Japan, title TBA

TECHNICAL SESSIONS

10.00 am – 12.00 pm: Waste to resources:

Moderator: Prof. TONG Yen Wah, National University of Singapore.

- 10.00 am: Dr. Gregg BECKHAM, National Renewable Energy Laboratory, USA. Lignin valorization through tandem chemical catalysis and biological funnelling.
- 10:30 am: Prof. HE Jianzhong, National University of Singapore, Sustainable techniques for butanol generation from organic waste
- 11:00 am: Prof. XIE Shangxian, Huazhong University of Science and Technology, China, Lignin valorization by integrating microbial aromatic bioconversion and polymer-structural biomodification
- 11:30 am: Prof. Carol Sze Ki LIN, City University of Hong Kong, Sophorolipid production from food waste



1.00 – 3.00 pm: Young scientist session – sustainable chemicals

Moderator: Prof. LI Chuanzhao, Singapore Institute of Technology, Singapore

- 1.00 pm: Mr. SU Guandong, National University of Singapore, Orange peel enhanced biobutanol production from starchy waste
- 1:30 pm: Mr. CUI Yonghao, National University of Singapore, A clostridial co-culture strategy for producing esters and value-added chemicals.
- 2:00 pm: Dr. TIAN Kaiyuan, National University of Singapore, A simple biosystem for the high-yield cascade conversion of racemic alcohols to enantiopure amines



3.15 – 5.45 pm: Food technology innovation

Moderator: Dr. JI Lianghui, Temasek Life Science Laboratory, Singapore

- 3:15 pm: Prof. Benjamin Paul Chapman SMITH, Singapore Institute of Food and Biotechnology Innovation (SIFBI), A*star, Singapore. Novel Food Safety Assessment – general safety & regulatory considerations.
- 3:45 pm: Ms. Florence LEONG, Director, Kosmode Health Singapore, Driving sustainability in food and biomedical application with a triple technology platform
- 4:15 pm: Mr. Allan LIM, Founder and Chairman, ComCrop – Urban farming and future food in Singapore
- 4:45 pm: Mr. Shiva SUSARLA, Cofounder and Director, Mycovation, Mycelium protein – a superfood for the better future
- 5:15 pm: Assist Prof. DU Juan, Singapore Institute of Technology, Effects of sugarcane fiber on reducing the in vitro glycemic response of white bread.



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10.00 am – 12.00 pm: Sustainable chemicals

Moderator: Prof. YANG Kun-Lin, National University of Singapore

- 10:00 am: Prof. LI Zhi, NUS, production of bio-based fine chemicals via cascade bio-transformations
- 10:30 am: Prof. YAN Ning, NUS, Chemical synthesis of amino acids from biomass
- 11:00 am: Prof. HE Ya-Wen, Shanghai Jiao Tong University, China. Microbial production of xanthan gum and medium chain fatty acids



1.00 - 3.00 pm: Young scientist session – valorization of food waste

Moderator: Dr. Simon ZHANG Congqiang, Singapore Institute of Food and Biotechnology Innovation (SIFBI), A*star, Singapore

- 1.00 pm: Dr. ZHANG Le, National University of Singapore, Conversion of food waste into bioenergy/bioresource via anaerobic digestion and acidogenic fermentation
- 1:30 pm: Dr. TIAN Hailin, National University of Singapore, Life cycle assessment in supporting sustainable food waste management
- 2:30 pm: Mr. Johnny Sik Chun LO, City University of Hong Kong, Food waste-derived medical textiles for healthcare apparel and personal protective equipment



3.15 – 5.15 pm: Synthetic biology

Moderator: Dr. ANG Ee Lui, Singapore Institute of Food and Biotechnology Innovation (SIFBI), A*star, Singapore

- 3:15 pm: Prof. YANG Shihui, Hubei University, China. Develop *Zymomonas mobilis* as a synthetic chassis for economic bioproducts
- 3:45 pm: Dr. YANG Yuansheng, Bioprocess Technology Institute, A*Star, CHO cell pathway engineering for biologics
- 4:15 pm: Assist Prof. Adison WONG Choon Kit, Singapore Institute of Technology, Genetic circuits to automate directed evolution at the cellular level.
- 4:45 pm: Dr. Stefan BAHNMUELLER, Fermatics (Pte.) Ltd. Fermatics - A Singapore biotech start-up story



5.15 – 6.00 pm: BESS AGM 2020

