

iSLS8 Satellite meeting

Microbial Lipids and Metabolism: Discoveries and Challenges In Tackling Infections

National University of Singapore, Tuesday 17th March 2020

Microbes are naturally engineered with distinct metabolic machineries which serve as attractive targets for therapeutics. Strikingly, each microbial species possesses their own metabolic signatures, and it remains a mystery how many lipids and metabolites exist in microbes and how these biomolecules are regulated. Advances in technology particularly liquid chromatography mass spectrometry have led to the revelation of novel lipids and facilitated mechanistic and functional studies on microbial metabolism. Here, we will share the latest developments in microbial metabolism and identifications of novel targets for treatment of infections.

Suggested program

13.00 Registration

13.30-13.45 Opening with thoughts questions

Understanding microbial metabolism and opportunities

13.45-14.10 Chris Sham (NUS) – Cell wall biosynthesis mechanism

14.10-14.35 Kimberly Kline (SCELSE, NTU) – Lipids and resistance

14.35-15.00 Kevin Pethe (LKC Medicine, NTU) – Microbial metabolism as Achilles' heel

15.00-15.15 *Coffee break*

Technological advances to probe microbial metabolism

15:15-15:40 Xue Li Guan (LKC Medicine, NTU) – Lipidomics of ESKAPE

15.40-16.05 Jo Brouwers (University Medical Centre Utrecht) – Lipidomics and genetics

16.05-16.30 Michael Zimmermann (EMBL) – Microbiome and metabolomics

16.30-17.15 Discussion

Organiser

Guan Xue Li

LKC Medicine, NTU

Venue

Seminar Room, Level 2

Lee Kong Chian School of Medicine

Headquarters Building, Novena Campus

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