2018 Singapore Symposium on Metabolic Diseases

Invitation for Participation

12th – 13th November 2018
Breakthrough Theatrette
Level 4, Matrix Building, 30 Biopolis Street

The Singapore Bioimaging Consortium (SBIC) under the Agency for Science, Technology and Research (A*STAR) invites you to the **2018 Singapore Symposium on Metabolic Diseases**.

Inaugurated in 2007, the symposium has been a forum to bring together world experts in the broad areas of metabolic diseases to share their latest research findings and insights. The event also serves as a platform for the invited speakers and participants to meet and forge collaborations with local scientists. This year, we have 16 speakers from overseas and 10 speakers from local research organizations. The topics to be discussed at the symposium will span from basic science to clinical research and with a focus on diabetes and its associated complications.

Overseas speakers:
Xu Aimin (Hong Kong Univ), Wang Yu (Hong Kong Univ), Kim Jae Bum (Seoul National Univ), Matthew Hirschey (Duke), Guo Feifan (CAS), Wang Congyi (Tongji Hospital), Wang Liming (Zhejiang Univ), Li Wei (Capital Medical Univ), Li Jia (CAS), Ding Chunming (Wenzhou Medical Univ), Per-Olof Berggren (Karolinska Institutet), Thomas Kay (The University of Melbourne), Guy Rutter (Imperial College London), Chen Yan (Institute for Nutritional Sciences, CAS), Yang Xiaoyong (Yale), Wang Ming-Wei (Fudan Univ)

Local speakers:
Bernhard Otto Boehm (NTU LKC), Yusuf Ali (NTU LKC), Tai E-Shyong (NUHS), Xu Feng (IMCB), Sun Lei (Duke-NUS), Fu Yu (SBIC), Norris Ray Dunn (IMB), George Augustine (NTU LKC), Russell Ericksen (SBIC), and Denis Bertrand (GIS).

The symposium is co-organized by Lee Kong Chian School of Medicine (NTU) and Institute of Molecular and Cell Biology (A*STAR).

Registration

Please register via email with jenny_see@sbic.a-star.edu.sg with the following information:

1. **Full name (family name first) and title (e.g. Prof/Dr/Mr/Ms)**
2. **Designation**
3. **Name of Organization**

Attendance at the symposium is **limited to 200 participants by registration only**.

ADMISSION IS FREE

Closing date for registration: 5 November 2018 (Monday)

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Programme

12 Nov 2018 (Day One)

11:45 – 12:45 Registration and Lunch

Opening Remarks

13:00-13:10 Barry Halliwell, Chairman, BMRC, A*STAR

2017 SSMD Outstanding Young Investigator Award Lecture ***(Chair: Han Weiping, SBIC, A*STAR)***
(Award presentation by Chairman, BMRC, A*STAR)

13:10-14:00 Matthew Hirschey, Duke University
Metabolism and Carbon Stress

Session One: Diabetes Etiology and Prevention (I) ***(Chair: James Best, LKC School of Medicine)***

14:00-14:15 Yusuf Ali, LKC School of Medicine, Nanyang Technological University
The Utility of Lipid Droplets to Protect against β-cell Lipotoxicity

14:15-14:20 Q and A

14:20-14:35 Guy Rutter, Imperial College of London / LKC School of Medicine, NTU
Pancreatic Beta Cell Pacemakers

14:35-14:40 Q and A

14:40-14:55 PO Berggren, Karolinska Institute / LKC School of Medicine, NTU
A Natural Body Window to Pancreatic Islet Cell Signal-Transduction

14:55-15:00 Q and A

15:00-15:30 Tea Break (30 mins)

Session Two: Diabetes Etiology and Prevention (II) ***(Co-Chairs: Yusuf Ali, LKC School of Medicine, NTU; Xu Aimin, The University of Hong Kong)***

15:30-15:45 Bernhard Boehm, LKC School of Medicine, Nanyang Technological University
Characteristics of Young Adult Onset Diabetes Mellitus

15:45-15:50 Q and A

15:50-16:05 Thomas Kay, The University of Melbourne
How the Beta Cell Contributes to Type 1 Diabetes

16:05-16:10 Q and A

16:10-16:25	Ray Dunn, Institute of Medical Biology, A*STAR / LKC School of Medicine, NTU Fleshing out the Regulatory Networks Controlling Human Pancreas Development
16:25-16:30	Q and A
16:30-16:45	Wang Cong-Yi, Tongji Hospital Altered Sumoylation Function in Beta Cell Dysfunction and the Development of Obesity and Insulin Resistance
16:45-16:50	Q and A
16:50-17:05	Li Jia, Shanghai Institute of Materia Medica, CAS Novel Strategy for Hyperglycemia Therapy Targeting to Mitochondria
17:05-17:10	Q and A
17:10-17:25	Chen Yan, Shanghai Institutes for Biological Sciences, CAS Intermittent Fasting Intervenes in Type 2 Diabetes Progression, Restores β cells and Reconstructs Gut Microbiota in Mice
17:25-17:30	Q and A
17:30-17:45	Tai E-Shyong, National University Hospital System Are We Ready for Personalized Medicine when It Comes to Diabetes Mellitus?
17:45-17:50	Q and A
18:00	**Transport to venue for Welcome Dinner (speakers and invited guests)**
18:30-21:30	**Welcome Reception and Dinner (speakers and invited guests)**

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13 Nov 2018 (Day Two)

Session Three: Central Regulation of Metabolism ***(co-Chairs: Kim Jae Bum, Seoul National University; Chen Yan, Shanghai Institutes for Biological Sciences, CAS)***

09:00-09:15 George Augustine, LKC School of Medicine, Nanyang Technological University
Pancreatic Islet Delta Cells Reach out to Modulate Beta Cell Function

09:15-09:20 Q and A

09:20-09:35 Guo Feifan, Shanghai Institutes for Biological Sciences, CAS
Central and Peripheral Mechanisms underlying Glucocorticoid-Increased Adiposity

09:35-09:40 Q and A

09:40-09:55 Yang Xiaoyong, Yale University
Fat-Sensing OGT Drives an Adipose-to-Brain Axis that Induces Hyperphagia and Obesity

09:55-10:00 Q and A

10:00-10:15 Wang Li-Ming, Zhejiang University
High Fat Diet Sensitizes Food Seeking Behavior in Drosophila via Attenuating Autophagy-Dependent Receptor Degradation

10:15-10:20 Q and A

10:20-10:35 Fu Yu, Singapore Bioimaging Consortium, A*STAR
Parallel Parabrachial Circuits in Suppressing Appetite

10:35-10:40 Q and A

10:40-11:10 Tea Break (30 mins)

Session Four: Lipid Metabolism and Adipose Tissue Biology ***(co-Chairs: Matthew Hirschey, Duke University; Xu Feng, IMCB, A*STAR)***

11:10-11:25 Kim Jae Bum, Seoul National University
Novel Roles of Lipid Droplet Binding Proteins in Energy Homeostasis

11:25-11:30 Q and A

11:30-11:45 Li Wei, Beijing Children's Hospital, Capital Medical University
BLOS1 Coordinates Kinesins during LDLR Recycling

11:45-11:50 Q and A

11:50-12:05 Xu Feng, Institute of Molecular and Cell Biology, A*STAR
Identification of Novel Regulators of Thermogenic Program through Epigenomic Analysis

12:05-12:10 Q and A

12:10-12:25 Xu Aimin, The University of Hong Kong
Crosstalk between Neurological and Immunological Signals in the Regulation of Beiging of White Adipose Tissue

12:25-12:30 Q and A

12:30-13:30 Lunch (1 hour)

SSMD Special Lecture ***(Chair: Han Weiping, SBIC, A*STAR)***

13:30-14:10 Wang Ming-Wei, The Chinese National Compound Library, CAS / Fudan University
GLP-1R: form a small molecular agonist to the determination of 3-D structure

Session Five: Detection and Prevention of Metabolic Complications (co-Chairs: Yang Xiaoyong, Yale University; Li Jia, SIMM, CAS)

14:10-14:25 Wang Yu, The University of Hong Kong
Characterization of Adiponectin-Expressing Lymphocytes in Thymus

14:25-14:30 Q and A

14:30-14:45 Sun Lei, Duke-NUS Medical School
Adipocyte Long-Noncoding RNA Transcriptome Analysis of Obese Mice Identified Lnc-Leptin, Which Regulates Leptin

14:45-14:50 Q and A

14:50-15:05 Ding Chunming, Wenzhou Medical University
Detecting Cancer Early with Liquid Biopsy

15:05-15:10 Q and A

15:10-15:25 Russell Ericksen, Singapore Bioimaging Consortium, A*STAR
Multi-Omic Analyses Identify Loss of BCAA Catabolism as a Driver of Tumor Development and Progression

15:25-15:30 Q and A

15:30-15:45 Denis Bertrand, Genome Institute of Singapore, A*STAR
ConsensusDriver Improves upon Individual Algorithms for Predicting Driver Alterations in Different Cancer Types and Individual Patients

15:45-15:50 Q and A

Closing Remarks

15:50-16:00 Patrick Cozzone, ED, SBIC, A*STAR

16:00 Transport to social events and dinner (overseas speakers)

END OF SYMPOSIUM