

SCBS ANNUAL CONFERENCE 2024

PROGRAMME BOOKLET

16•17 MAY 2024

UTown Auditorium 1 | NUS Campus |
Singapore



SOCIETY for CELL BIOLOGY SINGAPORE

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Guillaume Thibault School of Biological Sciences, NTU, SG

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Zhang Dan Temasek Life Sciences Laboratory, NUS, SG

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The University of Queensland

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MORNING SESSION • 16 MAY

08:00 Registration

08:45•09:10 Welcome Remarks

08:45 Opening Remarks by Brian Burke, President SCBS

09:00 Founding of the Biophysics Chapter of SCBS, Yan Jie,
Mechanobiology Institute

09:10•10:00 Keynote Speaker

Chair: Alexander Ludwig

09:10 **Rob Parton** – University of Queensland

Cave Exploration at the Nanoscale: The Structure and Function of Caveolae

10:00•13:00 Organelles and Cytoskeleton in Health & Disease

Chairs: Sho Suzuki & Claudio Bussi

10:00 **Lu Lei** – Nanyang Technological University

Solving Golgi's mysteries with new imaging tools

10:30 **Sudipto Roy** – Institute of Molecular and Cell Biology, A*STAR

Cilia, meiosis and fertility

11:00 **Coffee Break (30 min)**

11:30 **Yasunori Saheki** – Nanyang Technological University

Control of intracellular cholesterol distribution via non-vesicular lipid transport at membrane contact sites

12:00 **Hana Maldivita Tambrin** – Nanyang Technological University

The Cdc42/Rac GAP ArhGAP12 regulates actin polymerisation to control epithelial tight junction formation and permeability

12:15 **Min Luo** – National University of Singapore

Probing the Mechanisms of Cell Wall Degradation in Bacterial Division

12:45 **APP Systems Services** – Platinum Sponsor Presentation



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LUNCH • 16 MAY

13:00 • 14:30

Buffer at UTown Auditorium 1 Lobby

At the same time...

POSTER PRESENTATION I

13:30 • 14:30

By research staff and graduate student at UTown Auditorium 1 Lobby

Best Poster Award Ceremony will take place at 17:00 on 17 May

EXHIBITION

09:00 • 19:30

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AFTERNOON SESSION • 16 MAY

14:30•18:15 Cell and Tissue dynamics from development to disease

Chairs: Arikta Biswas & Yusuke Toyama

- 14:30 Phua Siew Cheng** – National University of Singapore
How may primary cilia shape learning and memory?
- 15:00 Peter Török** – Nanyang Technological University
Can Brillouin spectroscopy measure mechanical properties of biomedical samples?
- 15:30 Avery Rui Sun** – National University of Singapore
Hybrid hydrogel-extracellular matrix scaffolds identify distinct ligand and mechanical signatures in cardiac aging
- 15:45 Coffee Break (30 min)**
- 16:15 Elias Barriga** – Technische Universität Dresden
Biophysical Control of Tissue Morphogenesis
- 16:45 Anastasiia Fadieieva** – Nanyang Technological University
Endoplasmic reticulum homeostasis and posttranslational proteins modifications in cellular senescence
- 17:00 Peter Bond** – Bioinformatics Institute, A*STAR
An integrative modeling approach to targeting pathogens and host immunity
- 17:30 Edward Manser** – Institute of Molecular and Cell Biology, A*STAR
TBD
- 18:00 Thanh Phuong Nguyen** – Mechanobiology Institute
Tight junction membrane proteins regulate the mechanical resistance of apical junctional complex

REFRESHMENT • 16 MAY

18:15 • 19:30

Buffer at UTown Auditorium 1 Lobby

At the same time...

POSTER PRESENTATION II

18:15 • 19:30

By research staff and graduate student at UTown Auditorium 1 Lobby

Best Poster Award Ceremony will take place at 17:00 on 17 May

EXHIBITION

09:00 • 19:30

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MORNING SESSION • 17 MAY

09:00•12:30 Organoids: Disease Modeling and Cell Biology

Chairs: Bryan Ng & Haiyang Wang

- 09:00** **Andrea Pavesi** – Institute of Molecular and Cell Biology, A*STAR
Unlocking the Therapeutic Potential of In Vitro Models for the Blood-Brain Barrier and Tumor Immune Vascularized Organoids
- 09:30** **Xia Yun** – Nanyang Technological University
Interrogating kidney diseases using hPSC-derived kidney organoids
- 10:00** **Ng Boon Heng** – Mechanobiology Institute
Investigating the Role of Theca Cell Mechanosensing during Ovarian Follicle Development
- 10:15** **Coffee Break (30 min)**
- 10:45** **Srikala Raghavan** – Skin Research Labs, A*STAR
Uncovering the Role of LINC Complex Proteins in Skin
- 11:15** **Liu Jinyue** – Genome Institute of Singapore, A*STAR
Spatial architecture of autism pathogenesis during early development
- 11:45** **Leong Kim Whye** – Mechanobiology Institute
Self-organized criticality of lumen formation in ovarian follicle development
- 12:00** **BD Bioscience** – Platinum Sponsor Presentation



LUNCH • 17 MAY

12:15 • 14:00

Buffer at UTown Auditorium 1 Lobby

At the same time...

POSTER PRESENTATION III

12:45 • 14:00

By research staff and graduate student at UTown Auditorium 1 Lobby

Best Poster Award Ceremony will take place at 17:00 on 17 May

EXHIBITION

09:00 • 17:30

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AFTERNOON SESSION • 17 MAY

14:00•17:30 Nuclear Function and Cell Signaling

Chairs: Lu Gan & Chen Ee Sin

- 14:00** **Marco Foiani** – Cancer Science Institute Singapore
ATR and ATM-mediated control of nuclear mechanics
- 14:30** **Melissa Jane Fullwood** – Nanyang Technological University
Investigating the 3D genome organization of super-silencers in the human genome
- 15:00** **Hoh Kar Ling** – Temasek Life Sciences Laboratory
A Link Between Lipid Transfer Activity and Cell Polarity Regulated by Schizosaccharomyces pombe Oxysterol-binding Protein (OSBP)-related Proteins
- 15:15** **Coffee Break (30 min)**
- 15:45** **Winston Zhao** – National University of Singapore
Live-cell Single-molecule Imaging and Mapping of Human SWI/SNF Chromatin Remodelers Reveal Bromodomain-mediated and Cancer-mutants-specific Landscape of DNA-binding Dynamics
- 16:15** **Wilford Kenny Kho** – Nanyang Technological University
Nanopillar-enabled assessment of cellular age and efficacy of anti-ageing therapeutics
- 16:30** **Oliver Dreesen** – Skin Research Labs, A*STAR
Delineating the chain of events that trigger cellular senescence in the premature aging syndrome Hutchinson-Gilford progeria
- 17:00** **EINST Technology** – Platinum Sponsor Presentation
- 
- 17:15** **Closing Remarks** – SCBS 2024 Organizing Committee
Best Short Talks & Poster Award Ceremony

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