

8 Sept, Aspiration Theatre, Matrix, Biopolis

9:00 REGISTRATION (20 min)

9:20 **Opening remarks (10 min) by Dr. Shuji Hashimoto (Waseda)**

9:30 **Morning session-3: 30 min x 2 speakers (60 min) - Keynote Speeches -**

M3-1. Dr. Michael Hoch (Bonn) - Dietary rescue of peroxisomal deficiency in Drosophila

M3-2. Dr. Barbara Mazzolai (IIT) - Bioinspired soft robots for environmental and medical applications

10:30 COFFEE BREAK (15 min)

10:45 **Morning session-4: 20 min x 3 speakers (60 min)
- Interaction between cell biology and chemical biology -**

M4-1. Dr. Kim Chu Young (NUS) - Biosynthesis of Natural Product Antibiotics

M4-2. Dr. Yoichi Nakao (Waseda) - Chemical epigenomics by natural products

M4-3. Dr. Joachim Schultze (Bonn) - Epigenetic regulation of transcriptional regulators in human macrophage activation

11:45 LUNCH BUFFET (60 min)

12:45 **Bioelectronics session: 30 min x 2 speakers (60 min)
- Introducing JST-A*STAR joint funding program projects -**

Be-1. Dr. Hiroataka Sato (NTU) - Insect computer hybrid system: remote radio control of insect flight and walking

Be-2. Dr. Chengkuo Lee (NUS) - Toward smart skin plaster for transdermal drug delivery

13:45 COFFEE BREAK (15 min)

14:00 **Afternoon session-3: 20 min x 4 speakers (80 min)
- Interaction between biophysics and polymer chemistry -**

A3-1. Dr. Yan Jie (MBI) - Quantifying force-dependent protein-protein interactions and mechanopharmacology

A3-2. Dr. Toshinori Fujie (Waseda) - Nano/micro-engineered materials for advanced medicine and healthcare

A3-3. Dr. Virgile Viasnoff (MBI) - Controlling cell-cell interaction with biomimetic interfaces

A3-4. Dr. Keitaro Sou (Waseda) - Lipid-based molecular assemblies for biomedical applications

15:30 COFFEE BREAK (15 min)

15:45 **Afternoon session-4: 20 min x 4 speakers (80 min)
- Interaction between chemistry and medical biology -**

A4-1. Dr. Hiroko Ikeshima (Waseda) - Functional analysis of activated astrocytes in injured mouse brain

A4-2. Dr. Mayumi Okamoto (Waseda) - Structure activity relationships of the fluorine-18-labeled 7 α -alkylestradiol analogs

A4-3. Dr. Anna Letizia Allegra Mascaro (Florence) - Optical microscopy for brain imaging

A4-4. Dr. Naoya Takeda (Waseda) - Mechanobiological manipulation of cell behaviors with micro/nano-engineered materials and biointerface technologies

17:15 End of day 2

18:30 **Reception dinner (By invitation only)**

9:00 REGISTRATION (30 min)

9:30 Morning session-5: 30 min x 2 speakers (60 min) - Keynote Speeches -

M5-1. Dr. Michael Sheetz (MBI) - Local Pinching Controls Adhesion-Dependent Mechanosensing

M5-2. Dr. Shin'ichi Ishiwata (Waseda) - Cytoskeletal dynamic patterns induced by cell-sized spherical confinement

10:30 COFFEE BREAK (15 min)

**10:45 Morning session-6: 20 min x 4 speakers (80 min)
- Interaction between microbiology and macrobiology -**

M6-1. Dr. Irmgard Förster (Bonn) - Environmental regulation of immune responses through the AhR/AhRR sensory system

M6-2. Dr. Linda Kenney (MBI) - SsrB is a horizontally-acquired transcription factor that regulates ancestral genes to trigger Salmonella biofilms

M6-3. Dr. Haruko Takeyama (Waseda) - Analysis of marine invertebrate holobionts and supporting single-cell analysis technologies

M6-4. Dr. Christoph Winkler (NUS) - Modulating osteoblast-osteoclast coupling during bone remodeling in medaka

12:15 LUNCH BUFFET (60 min)

**13:15 Afternoon session-5: 20 min x 5 speakers (100 min)
- Interactions in biology from single cells to model animals -**

A5-1. Dr. Shigenobu Shibata (Waseda) - Interaction between circadian rhythm and exercise

A5-2. Dr. Wu Min (MBI) - Dissecting subcellular temporal patterning with chemical biology tools

A5-3. Dr. Tim Saunders (MBI) - Using Drosophila embryogenesis to explore temporal defects in development

A5-4. Dr. Nobuhito Goda (Waseda) - Metabolic adaptation to hypoxia

A5-5. Dr. Fumio Motegi (MBI) - Compartmentalisation of C. elegans zygotes

15:00 COFFEE BREAK (15 min)

**15:15 Afternoon session-6: 20 min x 5 speakers (100 min)
- Interactions among biology, chemistry and physics -**

A6-1. Dr. Alexander Bershadsky (MBI) - Aspects of the self-organization of the actin cytoskeleton

A6-2. Dr. Ronen Zaidel-Bar (MBI) - Actin polymerization by the formin FMNL3 is essential for epithelial cohesion during collective migration

A6-3. Dr. Toshio Ohshima (Waseda) - CRMPs: roles in neural development and regeneration

A6-4. Dr. Toru Asahi (Waseda) - Chiral spectroscopy on thalidomide

A6-5. Dr. Andreas Zimmer (Bonn) - Endocannabinoid signaling and aging

**17:00 CLOSING REMARKS
END OF CONFERENCE**