

## International Symposium

### “Bacteria made Organelles made Eukaryotic Cells”

#### November 29, Saturday

- 9:00 Room Open  
9:30-9:40 Opening Remark (Kan Tanaka)

#### **Session I Bacterial Systems (Chair: Ken-ichi Yoshida & Fujio Kawamura)**

- 9:40-10:00 Fujio Kawamura (Rikkyo University)  
Construction and utilization of novel ribosomes specifically translating a target gene in *B. subtilis*
- 10:00-10:40 Colin R. Harwood (Newcastle University)  
Bacterial protein secretion: the evolution of protein targeting

#### **Break**

- 11:00-11:20 Yasuo Ohnishi (The University of Tokyo)  
Regulation of gene expression by a microbial hormone in *Streptomyces*
- 11:20-11:40 Masaaki Wachi (Tokyo Institute of Technology)  
TolC-dependent exclusion of porphyrins in *Escherichia coli*
- 11:40-12:00 Tomoyasu Nishizawa (Ibaraki University)  
The diversified nonribosomal peptide synthetase gene cluster from cyanobacteria
- 12:00-12:20 Takashi Osanai (The University of Tokyo)  
Elucidation of signaling network around the group-2 sigma factor SigE in cyanobacteria

#### **Lunch**

#### **Session II Bacterial Symbiosis (Chair: Chiaki Kato)**

- 13:40-14:00 Ken-ichi Yoshida (Kobe University)  
Daizidein transforms *Sinorhizobium fredii* USDA191 NodD1 into

its activated mode: How a symbiant senses its host  
14:00-14:20 Takema Fukatsu (National Institute of Advanced Industrial  
Science and Technology)  
Endosymbiosis, Evolution and Diversity in Insect-Microbe  
Associations

14:20-14:40 Tadashi Maruyama (Japan Agency for Marine-Earth Science and  
Technology)  
Reductive genome evolution in chemoautotrophic intracellular  
symbionts of deep-sea *Calypptogena clams*

### **Break**

### **Session III      Organelle Systems & Inheritance (I) (Chair: Wataru Sakamoto & Naoki Sato)**

15:00-15:20 Ayumi Tanaka (Hokkaido University)  
Regulation of chlorophyll metabolism

15:20-15:40 Nobuyoshi Mochizuki (Kyoto University)  
Relationship between plastid-to-nucleus signaling and  
tetrapyrrole biosynthesis

15:40-16:00 Kan Tanaka (Chiba University)  
Regulation of plant cell cycles by tetrapyrrole signal

### **Break**

16:20-16:40 Yoshiki Nishimura (Kyoto University)  
Exploring the nuclear control of organelle DNA inheritance

16:40-17:00 Wataru Sakamoto (Okayama University)  
Organelle DNA degradation during pollen development: a genetic  
study in *Arabidopsis*

17:00-17:20 Koji Okamoto (National Institute of Basic Biology)  
Mitochondrial turnover in yeast – from phenomenology to  
molecular basis

**18:00-              Party**

**November 30, Sunday**

**Session IV      Organelle Systems & Inheritance (II) (Chair: Kan Tanaka)**

9:30-9:50      Toru Hisabori (Tokyo Institute of Technology)  
To understand redox regulation in cyanobacteria; approaches at the system level and the single molecule level

9:50-10:30      Andreas P. Weber (The University of Dusseldorf)  
Making the connections - the crucial role of intracellular transport in photosynthetic eukaryotes

**Session V      Symbiosis and Evolution (Chair: Kiyoshi Kita & Hisayoshi Nozaki)**

10:30-10:50      Isao Inouye (Tsukuba University)  
The secondary endosymbioses: ongoing evolution and its impact to present-day biodiversity

**Break**

11:10-11:30      Naoki Sato (The University of Tokyo)  
Cyanobacteria made endosymbionts made chloroplasts - massive hardware replacements vs conserved software

11:30-12:10      Charles F. Delwiche (University of Maryland)  
Evolution and Complexity of Algal Genomes

12:10-12:30      Hisayoshi Nozaki (The University of Tokyo)  
"Super" Plant Kingdom proposed, rejected and reinstated

**Lunch**

13:50-14:10      Motomichi Matsuzaki (The University of Tokyo)  
A DNA-lacking plastid in the oyster pathogen *Perkinsus marinus*

14:10-14:30      Shinichiro Maruyama (The University of Tokyo)  
Origins of cyanobacterial genes in the genomes of plastid-lacking protists

- 14:30-14:50 Tomoyoshi Nozaki (National Institute of Infectious Diseases)  
Mitochondria-related organelles from anaerobic parasitic protists
- 14:50-15:30 Shigeharu Sato (Medical Research Council)  
Heme biosynthesis in apicomplexan parasites - a collaboration of enzymes of diverse origins?

**Break**

**Session VI      *C. merolae* and Organelle Machineries (Chair: Tsuneyoshi Kuroiwa & Yasuhiko Sekine)**

- 15:50-16:10 Akiko Soma (Rikkyo University)  
Novel tRNA genes identified from *C. merolae*
- 16:10-16:30 Sousuke Imamura (The University of Tokyo)  
The plant-specific TFIIB-related protein, pBrp, is a general transcription factor for RNA polymerase I -Primitive rRNA synthesis system evolutionally conserved in plant lineages-
- 16:30-16:50 Fumi Yagisawa (Rikkyo University)  
Isolation and proteomic analysis of vacuoles in the primitive red alga *Cyanidioschyzon merolae*

**Break**

- 17:10-17:30 Shin-ya Miyagishima (RIKEN)  
Architecture and evolution of the chloroplast division machinery
- 17:30-17:50 Yamato Yoshida & Tsuneyoshi Kuroiwa (The University of Tokyo, Rikkyo University)  
Structure and Function of Mitochondrial and Plastid Division Machineries
- 17:50-17:55 Concluding Remark (Tsuneyoshi Kuroiwa)