

Program

Sep 10 (Sun) at Okazaki New Grand Hotel
(<http://www.newgrand.yad.jp/english.html>)

15:00-18:00 Registration at Okazaki New Grand Hotel

Sep 11 (Mon) at Okazaki Conference Center (<http://www.orion.ac.jp/>)

8:45- Registration at the Entrance hall, Okazaki Conference Center

9:00-9:40 Opening Session MC: SUWA, Yuichi (National Institute of Advanced Industrial Science & Technology (AIST), Japan)

9:40-10:20 Keynote Lecture 1
"To be announced"
TIEDJE, James M. (Michigan State University, USA)

10:20-10:40 *Coffee break*

Session 1 Bio-Geochemical Cycling and Microbial Functions

Conveners: MINAMISAWA, Kiwamu & ARP, Daniel J.

1-a) Nitrification and Novel N Transformation

10:40-11:20 **"Genome Enabled Studies of Energy, Carbon and Iron Metabolism in *Nitrosomonas europaea*"**
ARP, Daniel J. (Oregon State University, USA)

11:20-12:00 **"Nitrifier Genomics - New Insights into a Simple Catabolic Lifestyle"**
KLOTZ, Martin G. (University of Louisville, USA)

12:00-13:30 *Lunch* (Posters should be displayed during the lunch time)

13:30-14:10 **"Deciphering the Evolution and Metabolism of an Anammox Bacterium from a Community Genome"**
STROUS, Marc (Radboud University Nijmegen, The Netherlands)

14:10-14:50 **"Denitrification, Codenitrification, and Ammonia Fermentation by Fungi"**
SHOUN, Hirofumi (The University of Tokyo, Japan)

14:50-15:10 *Coffee break*

1-b) Nitrogen, Respiration and Interaction

15:10-15:50 **"Sensing and Responding to Nitric Oxide"**
SPIRO, Stephen (University of Texas at Dallas, USA)

- 15:50-16:30 **“The Complexity of Oxygen-Controlled Regulons in *Bradyrhizobium japonicum*”**
HENNECKE, Hauke H. (Institute of Microbiology (ETH), Switzerland)
- 16:30-16:50 *Coffee break*
- 16:50-17:30 **“Genomic Autoecology of Bradyrhizobia Associated with Plants and Soil Microbial Community”**
MINAMISAWA, Kiwamu (Tohoku University, Japan)
- 17:30-18:10 **Discussion**
- 18:10-19:10 **Short Talks** (5 minutes/ each Posters)
- 19:30-21:00 *Mixer at the Okazaki Conference Center*

September 12 (Tue)

- 9:00-10:20 **Short Talks** (5 minutes/ each Posters)
- 10:20-10:40 *Coffee break*
- Session 3 Bacterial Cross Talk**
Convener: KATO, Junichi, KJELLEBERG, Staffan L. & NOMURA, Nobuhiko
- 10:40-11:20 **“Biofilm Formation of Members of the Genus *Burkholderia* Is Controlled by a Quorum Sensing Mechanism”**
EBERL, Leo (University of Zurich, Switzerland)
- 11:20-12:00 **“Quorum Sensing, Virulence and Antibiotic Production in *Erwinia* and *Serratia*”**
SALMOND, George P.C. (University of Cambridge, UK)
- 12:00-13:30 *Lunch*
- 13:30-14:10 **“Bacterial Biofilm and Signaling Biology”**
KJELLEBERG, Staffan L. (The University of New South Wales, Australia)
- 14:10-14:50 **“The Quorum Sensing Related Interplay between Plants and Bacteria”**
BAUER, Wolfgang D. (University of California, USA)
- 14:50-15:05 *Coffee break*
- 15:05-15:45 **“Impact and Implications of Signal Interference in Microbe-Microbe Interactions”**
ZHANG, Lian-Hui (Institute of Molecular and Cell Biology, Singapore)

- 15:45-16:15 **“Development of the Control Methods of Quorum Sensing in Gram Negative Bacteria Using Synthetic AHL Analogues and Cyclodextrin Immobilized Gel Sheets”**
IKEDA, Tsukasa (Utsunomiya University, Japan)
- 16:15-16:30 *Coffee break*
- 16:30-17:10 **“Substrate Cross-Feeding in Autotrophic Nitrifying Biofilms”**
OKABE, Satoshi (Hokkaido University, Japan)
- 17:10-17:40 **“Bacterial Chemotaxis towards Environmental Chemical Signals: Earliest Cross Talk Response?”**
KATO, Junichi (Hiroshima University, Japan)
- 17:40-18:10 **Discussion**
- 18:10-18:50 **Short Talks** (5 minutes/ each Posters)
- 18:50-21:00 **Poster & Video Presentations** (w/snacks and beverages)

September 13 (Wed)

1-c) Geochemical Aspects

- 9:00-9:40 **“Ultramafics-Hydrothermalism-Hydrogenesis-HyperSLiME (UltraH³) Linkage Hypothesis: A Key Insight into Place and Mode of Last Universal Common Ancestral (LUCA) Ecosystem and Modern Analogs in the Present Earth”**
TAKAI, Ken (Japan Agency for Marine-Earth Science & Technology (JAMSTEC), Japan)
- 9:40-10:20 **“Microbial Ecology of the Miyake-jima Volcanic Deposit: Lithotrophic Microbes and the Development of Early Micro-Ecosystem”**
OHTA, Hiroyuki (Ibaraki University, Japan)
- 10:20-11:00 **“Molecular Methods to Study the Structure and Function of Methanotroph Populations in the Environment”**
MURRELL, J. Colin (University of Warwick, UK)
- 11:00-18:00 **Excursion**
- 18:00-21:00 *Banquet at the Okazaki New Grand Hotel*

September 14 (Thu)

Session 2 Gene Hopping Among Microbes - Good or Bad and for Adaptation to Various Environments?

Conveners: SUZUKI, Satoru & TIEDJE, James M.

- 9:00-9:40 **“Ribosomal Protection Protein (RPP) Genes in River and Marine Sediment: Hopping among Various Environments and Evolution of the Gene”**
SUZUKI, Satoru (Ehime University, Japan)
- 9:40-10:20 **“Effect of Veterinary Medicines Introduced into Soil via Manure on the Abundance, Diversity and Transferability of Sulfadiazine Resistance Genes”**
SMALLA, Kornelia (Federal Biological Research Centre for Agriculture and Forestry (BBA), Germany)
- 10:20-10:40 *Coffee break*
- 10:40-11:20 **“Horizontal Gene Transfer in Microbial Communities: Genetic Plasticity For Coping with Environmental Change”**
BARKAY, Tamar (Rutgers University, USA)
- 11:20-12:00 **“Global Movements of Viruses and Genetic Information”**
ROHWER, Forest (San Diego State University, USA)
- 12:00-13:30 *Lunch*
- 13:30-14:10 **“Marine Plasmids: What Have We Learned from Diversity Studies and Sequencing”**
SOBECKY, Patricia A. (Georgia Institute of Technology, USA)
- 14:10-14:50 **“Quantitative Determination of Gene Transfer at the Single Cell Level”**
NASU, Masao (Osaka University, Japan)
- 14:50-15:30 **Discussion**
- 15:30-15:50 *Coffee break*
- 15:50-16:30 Keynote Lecture 2
“To be announced”
OHMORI, Masayuki (Saitama University, Japan)
- 16:30-17:10 **“Possible Lateral Gene Transfers and Diversification in Cyanobacteria”**
MIYASHITA, Hideaki (Kyoto University, Japan)

- 17:10-17:50 **“Evolution of Diversity and the Genetics of Phenotypic Innovation”**
RAINEY, Paul B. (University of Auckland, New Zealand)
- 17:50-18:30 **“Genomic Analyses and the Origin of the Eukaryotes: The Ring of Life”**
RIVERA, Maria C. (University of California, Los Angeles, USA)
- 18:30- **Dinner**
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September 15 (Fri)

1-d) Post-Genomic Approaches for Microbial Ecology (Genomics, Proteomics and Functional Array)

- 9:00-9:40 **“Metagenomics Analysis of Complex Samples”**
SCHUSTER, Stephan C. (PennState University, USA)
- 9:40-10:20 **“Mass Spectrometry-Based Proteome Measurements Reveal Insight into a Natural Microbial Biofilm Community”**
HETTICH, Robert L. (Oak Ridge National Laboratory, USA)
- 10:20-10:40 *Coffee break*
- 10:40-11:20 **“Development and Applications of Functional Gene Arrays to Understanding Microbial Diversity, Distribution and Dynamics in Groundwaters, Soils and Marine Sediments”**
ZHOU, Jizhong (Institute for Environmental Genomics, USA)
- 11:20-12:00 **Conclusion**
- 12:00-13:30 *Lunch*
- 13:30- Adjourn
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