

28th. November

Room 31

Soil and terrestrial ecosystem

9:30 - 9:45 1_31_O-a01 **Bacterial communities in the mucilage of water shield (*Brasenia schreberi*)**

*Kazumori Mise (1), Makoto Abe (2), Hideomi Itoh (1), Kazutaka Takeshita (2)
(1) Bioprod. Res. Inst., AIST Hokkaido, (2) Fac. Biores. Sci., Akita Pref. Univ.

9:45 - 10:00 1_31_O-a02 **Elucidation of colonization pattern and plant growth promoting function of *Pseudomonas* sp. L105**

*Manami Maeda(1), Moeri Yoshimura(1), Kenji Sakai(1), Mugihito Oshiro(1), Yukihiro Tashiro(1)
(1) Graduate School of Bioresources and Environmental Sciences, Kyushu University

10:00 - 10:15 1_31_O-a03 **Large-scale collection of uncultured microbial genomes from environmental soils**

*Tatsuya Saeki(1), Taruho Endoh(1), Kazuma Kamata(1),
Tetsuro Kawano-Sugaya(1), Koji Arikawa(1), Masahito Hosokawa(1,2,3,4,5)

(1)bitBiome, Inc., (2)Department of Life Science and Medical Bioscience, Waseda University,
(3)Research Organization for Nano and Life Innovation, Waseda University,
(4)Institute for Advanced Research of Biosystem Dynamics,
Waseda Research Institute for Science and Engineering,
(5)Computational Bio Big-Data Open Innovation Laboratory, National Institute
of Advanced Industrial Science and Technology

10:15 - 10:30 **Break time**

10:30 - 10:45 1_31_O-a04 **Elucidation of the mechanism of phosphorus availability in soil by microorganisms and its application**

*Kerui Guo (1), Yuta Kojima (2), Takashi Kunito (2), Shigeto Otsuka (1), (3)
(1) Graduate School of Agricultural and Life Sciences, The University of Tokyo;
(2) Faculty of Science, Shinshu University; (3) CRIIM, The University of Tokyo

10:45 - 11:00 1_31_O-a05 **Exploring the differences between bacteria that utilize and do not utilize low molecular weight carbon sources amended to soil**

Mayuko Abe (1), Shunsuke Iwata (1), Kazumori Mise (2), *Shigeto Otsuka (1), (3)
(1) Graduate School of Agricultural and Life Sciences, The University of Tokyo;
(2) Bioproduction Research Institute, AIST; (3) CRIIM, The University of Tokyo

11:00 - 11:15 1_31_O-a06 **Unearthing electroautotrophic bacterial process driving in-situ treatment of Manganese(II)-containing mine drainage**

*Miho Watanabe(1), Sereyroith Tum(2) , Taiki Katayama(2) , Obey Gotore(1) , Kunihiro Okano(1) ,
Shinji Matsumoto(2) , Soichiro Sato(3) , Tetsuo Yasutaka(2) and Naoyuki Miyata(1)

(1) Akita Prefectural University, (2) Research Institute for Geo-Resources and Environment,
Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology,
(3) Resources and Environment Department, Japan Groundwater Development Co., Ltd.

11:15 - 11:30 **Break time**

11:30

**Luncheon Seminar
11:30-12:30**

**On-chipBiotechnologies
AS ONE CORPORATION**

12:30

12:30 - 12:45

Break time · Let's move to Exhibition and Event Hall!

12:45

Poster session@Exhibition and Event Hall

12:45-13:45 First Half

13:45-14:15 Communication Time

14:15-15:15 Second Half

15:15

15:15 - 15:30

Break time · Let's move to Symposium!

15:30

Symposium

15:30 - 18:00

Current Trends in Plasmid Ecology

Masaki Shintani (Shizuoka University) · Kouhei Kishida (Tohoku University)

Cosponsor : Creative Base Creative Base on Food and Bio-industry, Shizuoka University

Shizuoka UnShizuoka University Graduate Student Auditing

1_31_S-p01 Unlocking the Secrets of Plasmid Ecology

*Masaki (Masa) Shintani(1,2,3,4)

(1)Graduate School of Integrated Science and Technology, Shizuoka University,

(2)Graduate School of Science and Technology, Shizuoka University,

(3)Research Institute of Green Science and Technology, Shizuoka University,

(4)Japan Collection of Microorganisms, RIKEN BioResource Research Center)

1_31_S-p02 The Mechanism of Bacterial Conjugation and Its Ecological Role

Kouhei Kishida

Grad. Sch. of Life Sciences, Tohoku Univ.

1_31_S-p03 Adaptation system to light environment via plasmid shuffling

*Keita Miyake (1), Tomonori Kashimoto (2), Chikahiro Matsumoto (2), Ryosuke Hasama (3), Mayuko Sato (3), Kiminori Toyooka (3), Yu Kanesaki (5), Wataru Iwasaki (1), Rei Narikawa (4)

(1) Graduate School of Frontier Sciences, The University of Tokyo, (2) Department of Biological Science, Faculty of Science, Shizuoka University, (3) RIKEN Center for Sustainable Resource Science,

(4) Department of Biological Sciences, Graduate School of Science, Tokyo Metropolitan University, (5) Research Institute of Green Science and Technology, Shizuoka University

1_31_S-p04 Revisiting knowledge of AMR bacteria and plasmids

Masato SUZUKI

AMR Res. Ctr., Nat. Inst. Infect. Dis.

1_31_S-p05 Conjugative transfer of antibiotic resistance genes in activated sludge

*Mamoru Oshiki (1), Kosuke Higuchi (1), Kiko Ohara (1), Satoshi Okabe (1)

(1) Faculty of Engineering, Hokkaido University

18:00

18:00 - 18:15

Break time

18:15

Free meeting
18:15 - 19:45
Ecology, physiology and evolution of
CPR bacteria and DPANN archaea

Shingo Kato (RIKEN-BRC, JCM) · Shino Suzuki (JAXA)

1_31_W-p01 **A proposal for symbiotic mechanism of a DPANN archaeon**

*Shingo Kato
RIKEN-BRC, JCM

1_31_W-p02 **Establishment of novel DPANN coculture systems from acidic hot springs**

*Hiroyuki Sakai (1,2), Hiromi Omokawa (2), Koichi Nakamura (2), Kiyomasa Takami (2), Satoshi Nakagawa (3,4,5), Takuro Nunoura (6), Moriya Ohkuma (1), Norio Kurosawa (2)

(1) JCM, RIKEN BRC, (2) Fac. of Sci. and Eng., Soka Univ., (3) Grad. Sch. of Agri., Kyoto Univ., (4) ExCELLS, NINS, (5) X-star, JAMSTEC, (6) CeBN, JAMSTEC

1_31_W-p03 **Protein glycosylation in DPANN archaea and their host archaea.**

*Satoshi Nakagawa(1,2,3), Shigeru Shimamura(2), Yoshiki Takamatsu(1), Hiroyuki Sakai(4), Shingo Kato(4), Shigeki Sawayama(1), Hirokazu Yagi(3,5), Maho Yagi(3,5), Saeko Yanaka(3,5), Koichi Kato(3,5), Ken Takai(2)

(1)Graduate School of Agriculture, Kyoto University, (2)X-star, Japan Agency for Marine-Earth Science and Technology, (3)ExCELLS, National Institute of Natural Sciences, (4)JCM, RIKEN BioResource Research Center, (5)Graduate School of Pharmaceutical Sciences, Nagoya City University

1_31_W-p04 **Rock-hosted lifestyle of enigmatic DPANN archaea unveiled by genome-resolved meta-omics**

*Yohey Suzuki(1)
(1) Grad. Sch. of Sci., Univ. Tokyo

1_31_W-p05 **Exploring Ribosomal Evolutionary Scenarios through the Analysis of CPR Bacteria**

*Kazuaki Amikura(1), Shun'ichi Ishii(2), Yoshihiro Shimizu(3), Shino Suzuki(1,4)
(1)JAXA/ISAS, (2)JAMSTEC X-STAR, (3)RIKEN BDR, (4)RIKEN CPR

19:45

28th. November

Room 41

Soil and terrestrial ecosystem

9:30 - 9:45 1_41_O-a01 **Attenuation of methane oxidation by nitrogen availability in Arctic tundra soils**

*Jaehyun Lee (1), Hojeong Kang (1)

School of Civil and Environmental Engineering, Yonsei University, Seoul, South Korea

9:45 - 10:00 1_41_O-a02 **Microbial succession during leaf degradation of the giant fern *Angiopteris lygodiifolia* as model for microbial litter degradation in tropical/subtropical environment**

*Roland Kirschner (1), Yu-Wei Yeh (1), Yao-Moan Huang (2)

(1) School of Forestry and Resource Conservation, National Taiwan University, Taipei, 10617, Taiwan, (2) Taiwan Forestry Research Institute, Zhongzheng Distr., 10079 Taipei City, Taiwan

10:00 - 10:15 1_41_O-a03 **Cascade effects of forest thinning on microbial functional genes of various tree species and multiple decomposition time series: Insights from deadwood decomposition in tropical forest**

*David Anderson (1), Yu-Ting Wu (2)

(1) Department of Tropical Agriculture and International Cooperation (DTAIC), National Pingtung University of Science and Technology, Pingtung 91201, Taiwan, ROC, (2) Department of Forestry, National Pingtung University of Science and Technology, Pingtung 91201, Taiwan, ROC, (3) Department of Biomedical Science and Environmental Biology, Kaohsiung Medical University, Kaohsiung 80708, Taiwan, ROC

10:15 - 10:30 **Break time**

10:30 - 10:45 1_41_O-a04 **Biodegradation of PBAT mulch film by an elite fungal strain *Purpureocillium lilacinum* BA1S isolated from farmland soil**

Wei-Sung Tseng (1), Min-Jia Lee (1), Jin-An Wu (2), Shin-Liang Kuo(2), Sheng-Lung Chang(2), Shu-Jiuan Huang(2), *Chi-Te Liu (1) (3) (4)

(1)Institute of Biotechnology, National Taiwan University, Taiwan, (2)Material and Chemical Research Laboratories, Industrial Technology Research Institute, Taiwan, (3)Department of Agricultural Chemistry, National Taiwan University, Taiwan, (4)Agricultural Biotechnology Research Center, Academia Sinica, Taiwan

Aquatic ecosystems

10:45 - 11:00 1_41_O-a05 **Inconspicuous but indispensable: Phenanthrene biodegradation by *Sagittula* that represented a minor population in a phenanthrene-enriched marine bacterial consortium**

*Jiro F. Mori (1), Mayuko Abe (1), Go Kayama (1), Robert A. Kanaly (1)

(1) Grad. Sch. Nanobiosci., Yokohama City Univ.

11:00 - 11:15 1_41_O-a06 **Frequency and diversity of chemical interactions in marine invertebrate- derived bacteria**

*Dana Ulanova, Yuta Matsubara, Tetsuya Sakurai
Graduate School of Integrated Arts and Science, Kochi University

11:15 - 11:30 **Break time**

11:30

**Luncheon Seminar
11:30-12:30**

12:30

Bioengineering Lab Co. Ltd. + PacBio Japan

12:30 - 12:45 **Break time · Let's move to Exhibition and Event Hall!**

12:45

Poster session@Exhibition and Event Hall

12:45-13:45 First Half

13:45-14:15 Communication Time

14:15-15:15 Second Half

15:15 - 15:30 **Break time · Let's move to Symposium!**

15:30

**ASME Session Symposium
15:30 - 18:00**

15:30 - 16:20

Biotechnology and applied microbiology

1_41_S-p01 **Microbial Communities in Traditional Homes: Implications for Human Health and Well-Being**

*So Fujiyoshi (1)

(1) The IDEC Institute, Hiroshima University

1_41_S-p02 **Wastewater-based epidemiology using monitoring human pathogenic viruses and bacteria in municipal wastewater**

Joonhong Park(1), Jayeon Kim1, Subin Kim(1), Geuk-Tae Kim(2)

(1)Department of Civil and Environmental Engineering, Yonsei University, Shizuoka University,

(2)Department of Bio-environmental Science, Dongguk University

16:20 - 18:00

**Host-microbe and microbe-microbe interactions,
plant associated microbial ecology**

1_41_S-p03 **Soil microbiota regulates pest prosperity**

*Hideomi Itoh (1)

1)Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology

1_41_S-p04 **Synergistic phenol degradation in association with microalgae and bacteria for enhanced carbon neutrality**

Minkee Cho (1), Jaai Kim (1), Do Hyeon Gwon (2), Soo Hong Kim (2),
Daeseung Kyung (3), *Hyokwan Bae (1)

(1) Department of Civil, Urban, Earth and Environmental Engineering,
Ulsan National Institute of Science and Technology,
(2) SGR Tech Co. Ltd.,
(3) School of Civil and Environmental Engineering, University of Ulsan

1_41_S-p05 **Tripartite successive response within the holobiont to Tripartite successive response within the holobiont to the daily temperature fluctuations**

Yunli Eric Hsieh (1), (2), (3), Chih-Ying Lu (4), (5), (6), Po-Yu Liu (7), Jia-Min Kao (8),
Sung-Yin Yang (9), Chien-Yi Wu (8), Jing-Wen Michelle Wong (8), *Shan-Hua Yang (8)

(1) Sys. Bio. Math. Mod., Max Planck Inst. Mol. Plant Physio., Germany,
(2) Biodi. Res. Cen., Academia Sinica, Taiwan, (3) Dep. Post-Bac. Med., NSYSU, Taiwan,
(4) Inst. Fish. Sci., NTU, Taiwan, (5) Dep. Aqu. Bio., NCYU, Taiwan

1_41_S-p06 **Lactate production and utilization by human commensal anaerobic bacteria and the mechanisms of species-specific mutualistic interactions**

*Shir-Ly Huang (1), Shi-Min Zhang (2), Duong Nguyet Anh (1)

(1) Institute of Microbiology and Immunology, National Yang Ming Chiao Tung University, Taipei,
Taiwan,
(2) Program in Molecular Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan

18:00

18:00 - 18:15

Break time

18:15

Free meeting
18:15 - 19:45
Hot Topics of Hot Microbiome

Yu Nakajima (JAMSTEC)

1_41_W-p01 **Introduction of Hot Microbiome**

*Yu Nakajima

Japan Agency of Marine-Earth Science and Technology (JAMSTEC)

1_41_W-p02 **History and recent progress of microbiological studies on Nakabusa hot springs, Nagano, Japan.**

*Shigeru Kawai

JAMSTEC

1_41_W-p03 **Examination of Fe-rich hot springs as an analogue site of Earth's early Ocean**

*Yuya Tsukamoto

JCM-BRC, RIKEN

1_41_W-p04 Coexistence system and invasion conditions of hot spring microbial ecosystems: a fusion of mathematics x experiment

*Daiki Kumakura (1,2)

(1) Grad, Sch. of Life Sci., Hokkaido Univ., (2) iTHEMS, RIKEN

1_41_W-p05 Uncultured DPANN archaea hidden in high-temperature hot springs

*Katsunori Yanagawa (1), Shingo Kato (2)

(1) University of Kitakyushu, (2) Riken JCM

19:45

28th. November

Room 43

Symbiosis, interaction, theory

9:30 - 9:45 1_43_O-a01 **Studying the role of teleost skin microbiome and its interactions with the environment and host skin using ex vivo skin explant model**

*Liang-Chun Wang, Yu-Che Chiu, Li-Hsuan Chen, Ru-Fang Siao

Department of Marine Biotechnology and Resources, National Sun Yat-sen University,
Kaohsiung, Taiwan

9:45 - 10:00 1_43_O-a02 **Mitigation of nitrous oxide (N₂O) emissions by soybean *Bradyrhizobium***

*Fernandes Siqueira Arthur(1), Manabu Itakura(1), Kaori Kakizaki(1), Tomoko Sakai(1),
Kiwamu Minamisawa(1)

(1)Graduate School of Life Sciences, Tohoku University

Genomics, molecular biology

10:00 - 10:15 1_43_O-a03 **Exploring Microbial Communities and Their Functional Potential in Biofloc Aquaculture**

*Meora Rajeev (1,2), Ilsuk Jung (1), Ilnam Kang (1), and Jang-Cheon Cho (1)

(1) Department of Biological Sciences, Inha University, Incheon, Republic of Korea,
(2) Institute for Specialized Teaching and Research, Inha University, Incheon, Republic of Korea

10:15 - 10:30 **Break time**

Phylogeny and taxonomy

10:30 - 10:45 1_43_O-a04 **Exploring a novel predatory bacterium with gliding motility isolated from the West Sea of Korea**

*Neak Muhammad (1,2), Forbes Avila (1,2), Song-Gun kim (1,2)

1 Biological Resource center/Korean collection for type culture, Korea Researc Institute of
Bioscience and Biotechnology, jeonbuk 56212, Republic of Korea 2 University of Science and
Technology (UST), Daejeon 34113, Republic ok Korea

Physiology, metabolism

10:45 - 11:00 1_43_O-a05 **Characterization of *Dehalococcoides mccartyi* strain NIT-OBY that dechlorinate 1,3-Dichloropropene to completely non-toxic Propene**

*Atsuhiko Yano (1), Yuta Fujii (2), Naoko Yoshida (1)

(1) Dept. Civil Eng. Nitech, (2) OBAYASHI CORP.

11:00 - 11:15 1_43_O-a06 **Characterization of Endozoicomonas in dddD gene-mediated dimethylsulfoniopropionate (DMSP) metabolisms using omics approaches**

*Sen-Lin Tang

Biodiversity Research Center, Academia Sinica, Taiwan

11:15 - 11:30 **Break time**

11:30

Lunch Break

12:30

12:30 - 12:45 **Break time · Let's move to Exhibition and Event Hall!**

12:45

Poster session@Exhibition and Event Hall

12:45-13:45 First Half

13:45-14:15 Communication Time

14:15-15:15 Second Half

15:15

15:15 - 15:30 **Break time · Let's move to Symposium!**

15:30

Symposium

15:30 - 18:00

Metabolite Analysis to Capture the "Linkage" of Microbial Ecosystems: Past and Future

Kenshi Suzuki (Univ. Tokyo) · Hidehiro Ishizawa (Univ. Hyogo)
Yuki SOMA (Kyushu Univ.) · Mikiyasu Sakanaka (Kyoto Univ.)

Supported by ACT-X "Environments and Biotechnology", JST Strategic Basic Research Programs
Cosponsor JSME, Soico-Microbiology Research Group

1_43_S-p01 **The assembly and functioning principle of microbial community**

*Kenshi Suzuki

Grad. Sch. of Agri. Life Sci., Univ. of Tokyo

1_43_S-p02 **Single-genome sequencing of environmental bacteria and phages to elucidate their functions**

*Yohei Nishikawa(1,2)

(1) CBBB-OIL, AIST-Waseda Univ., (2) Res. Org. Nano Life Innov., Waseda Univ.

1_43_S-p03 **Intestinal metabolites that support symbiosis between bifidobacteria and humans**

*Mikiyasu Sakanaka

Graduate School of Biostudies, Kyoto University

1_43_S-p04 **Comprehensive analysis of microbial metabolites and integration with genome data**

*Nobuyuki Okahashi
Grad. Sch of Info. Sci. Tech., Osaka Univ.

1_43_S-p05 **Unraveling microbial interspecies interactions within a synthetic plant microbiome**

*Hidehiro Ishizawa
Grad. Sch. of Eng., Univ. Hyogo

1_43_S-p06 **Synthetic biology approaches to microbial ecology**

*Yuki SOMA
Fac. Agric. Kyushu Univ.

1_43_S-p07 **On the evolvability and ecological impact of microbial metabolic hierarchies**

*Sotaro Takano(1,2)

18:00 1) Bioproduction Research Institute, AIST, (2) Research Center for Macromolecules and Biomaterials

18:00 - 18:15 **Break time**

18:15

Free meeting

18:15 - 19:45

JSME Envirus Meeting 2023

~Lightning Talks by Young Scientists~

Ryota Wagatsuma (Waseda University), Kento Tominaga (The University of Tokyo),
Michiko Takahashi (Kochi University), Yuto Chiba (Meiji University)

19:45

28th. November

Room 44

Extreme environment

9:30 - 9:45 1_44_O-a01 **Measuring microbial growth and metabolic processes at high hydrostatic pressure and temperature using a novel cultivation svstem**
*Yuki Morono(1), Fumiaki Mori(1), Akira Ijiri(1, 2), Tomoya Nishimura(1,3), Taisuke Wakamatsu(3), Nozomi Katsuki(3,4)
(1)KCC, JAMSTEC, (2)Kobe Univ., (3)Kochi Univ., (4)Univ. Tsukuba

9:45 - 10:00 1_44_O-a02 **Microbial Assembly and Adaptation in Deep Subseafloor Sediment**
*Tatsuhiko Hoshino(1), Hideyuki Doi(2), Takehiko Ito(3)
(1)KCC, JAMSTEC, (2)Grad. Sch. Inform, Kyoto Univ., (3)Sch. Life Sci. Tech, Tokyo Tech.

10:00 - 10:15 1_44_O-a03 **Impacts of groundwater pumping on subterranean microbial community in deep aquifer**
*Shinsei Iso(1), Yu Sato(2), Hiroyuki Kimura(1,3)
(1)Grad. Sch. Integ. Sci. Tech., Shizuoka Univ., (2)Yamaguchi Univ., (3)Res. Inst. Green Sci. Tech., Shizuoka Univ.

10:15 - 10:30 Break time

10:30 - 10:45 1_44_O-a04 **Comparative microbial community analysis of rock samples from Higashi-Aogashima Knoll Caldera**
*Satoshi Wakai(1), Shimpei Aikawa(2), Junji Torimoto(3), Jun-ichiro Ishibashi(4), Yutaro Takaya(3,5,6), Tatsuo Nozaki(3,7,8)
(1)X-star, JAMSTEC, (2)JIRCUS, (3)MRU, JAMSTEC, (4)KOBEC, Kobe Univ., (5)Dep. Sys. Innov., Univ. Tokyo, (6)Waseda Univ., (7)Front. Res. Cent. Ener. Resour., Univ. Tokyo, (8)Grad. Sch. Sci., Kobe Univ.

10:45 - 11:00 1_44_O-a05 **Meta-omics analysis for a methanogenic toluene-degrading microbial community enriched from a deep subsurface oil reservoir**
*Hiroki Kawamoto(1,2), Masaru K. Nobu(2,3), Masanori Kaneko(4), Satoshi Furota(4), Kenta Asahina(4), Satoshi Tamazawa(4), Konomi Suda(4), Haruo Maed(4), Susumu Sakata(4), Yoichi Kamagata(2), Daisuke Mayumi(4), Hideyuki Tamaki(2,5)
(1)Grad. Sch. Sci. Tech., Univ. Tsukuba, (2)Bioprod. Res. Inst., AIST, (3)X-star, JAMSTEC, (4)GSJ, AIST, (5) Fac. Life Environ. Sci., Univ. Tsukuba

11:00 - 11:15 1_44_O-a06 **Study on Microbial Community Structure in Concrete**
*Atsushi Teramoto(1), China Kuratomi(1)
(1)Graduate School of Advanced Science and Engineering, Hiroshima University

11:15 - 11:30 Break time

11:30

Lunch Break

12:30

12:30 - 12:45 Break time · Let's move to Exhibition and Event Hall!

12:45

Poster session@Exhibition and Event Hall

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15:15 - 15:30

Break time • Let's move to Symposium!

15:30

Break room

18:00

18:00 - 18:15

Break time

18:15

Break room

19:45

28th. November

Room 525354

Phylogeny and taxonomy

9:30 - 9:45 1_5_O-a01 **Isolation of Kuravirus-like phages from domestic wastewater treatment plants and their phylogenetic analysis**

*Yugo Fujii (1), Steven Batinovic (2), Kaho Motoyama (3), Yilin Wen (3), Tadashi Nittami (2)

(1) Graduate School of Engineering Science, Yokohama National University,
(2) Division of Materials Science and Chemical Engineering, Yokohama National University,
(3) Department of Chemistry, Chemical Engineering and Life Science, Yokohama National University

9:45 - 10:00 1_5_O-a02 **Characterization of *Vallitalea longa* isolated from marine sediment**

*Shiori Hirano (1), Koji Mori (2), Moriyuki Hamada (2), Ryo Matsumoto (3), Takeshi Kobayashi (1)

(1) Graduate School of Marine Science and Technology,
Tokyo University of Marine Science and Technology,
(2) NITE Biological Resource Center (NBRC), National Institute of Technology and Evaluation (NITE),
(3) Organization for the Strategic Coordination of Research and Intellectual Properties, Meiji University

10:00 - 10:15 1_5_O-a03 **Novel strict anaerobes isolated from marine sediments in Tokyo Bay**

*Takashi Minamitsuji (1), Shiori Hirano (1), Koji Mori (2), Moriyuki Hamada (2), Takeshi Kobayashi (1)

(1) Graduate School of Marine Science and Technology,
Tokyo University of Marine Science and Technology,
(2) NITE Biological Resource Center (NBRC), National Institute of Technology and Evaluation (NITE)

10:15 - 10:30 **Break time**

10:30 - 10:45 1_5_O-a04 **Isolation strategy for acid-tolerant/acidophilic comammox
~2. Obtaining comammox batch culture in inorganic medium~**

Sota Nakamura (1), Takashi Mitsuboshi (1), Tatsuo Sumino (2), Yuichi Suwa (1), Hirotsugu Fujitani (1)
(1) Department of Biological Sciences, Chuo University, (2) Department of Engineering, Toyo University

10:45 - 11:00 1_5_O-a05 ***Methylosinus endotrunci* sp. nov., a methane-oxidizing bacterium
isolated from an internal tree trunk**

*Atsuya Endo (1), Mikitoshi Harada (1), Rina Shinjo (1), Fumika Oe (1), Takeshi Watanabe (1),
Daniel Epron (2), Susumu Asakawa (1)

(1) Grad. Sch. of Bioagri. Sci., Univ. Nagoya, (2) Grad. Sch. of Agri., Univ. Kyoto

11:00 - 11:15 1_5_O-a06 **Changes in the fatty acid synthesis pathway due to the acquisition of
diatom predation ability in the labyrinthulean protists,
Aplanochytrium spp.**

*Kotaro Hashimoto (1), Eri Yamada (2), Yohei Ishibashi (3), Makoto Ito (3), Hiroyuki Imai (2,4),
Daiske Honda (2,4)

(1) Graduate School of Natural Science and Technology, Konan University,
(2) Department of Biology, Faculty of Science and Engineering, Konan University,
(3) Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University,
(4) Institute for Integrative Neurobiology, Konan University

11:15 - 11:30 **Break time**

11:30

Lunch Break

12:30

12:30 - 12:45

Break time · Let's move to Exhibition and Event Hall!

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15:15 - 15:30

Break time · Let's move to Symposium!

15:30

Symposium

15:30 - 18:00

Major Microbial Transitions: From the origin of life to the origin of the domains

Shawn E. McGlynn (Tokyo Inst. Technol)

1_5_S-p01 Unusual Carbon Fixation Pathways in the Serpentinized Ecosystem

*Shino Suzuki (1,2,3)

(1)ISAS/JAXA, (2)CPR/RIKEN, (3)X-star/JAMSTEC

1_5_S-p02 Directionality of CO₂ Fixation Pathways in the Presence of Other Carbon Sources

*Yoko Chiba (1,2)

(1)CSRS, RIKEN, (2)Fac. Life. Environ. Sci. Tsukuba Univ.

1_5_S-p03 Assimilation of CO₂ in Hyperthermophilic and Heterotrophic Bacteria Revealed by ¹³C Tracer-Based Metabolomics Using CE-MS

*Yuto Fukuyama(1), Shigeru Shimamura(2), Tomomi Sumida(1), Yoko Chiba(3), Hisato Chikaraishi(4), Haruyuki Atomi(5), Takuro Nunoura(1)

(1)CeBN, JAMSTEC, (2)X-star, JAMSTEC, (3)CSRS, RIKEN, (4)Inst. of Low Temp. Sci., Hokkaido Univ., (5)Grad. Sch. of Eng., Kyoto Univ.

1_5_S-p04 Adaptive Metabolic Evolution: Converging on Ecological Redox Niches

*Mayumi Seto

Faculty of Science, Nara Women's University

18:00

18:00 - 18:15

Break time

18:15

Workshop
18:15 - 19:45
**Exploring, Observing,
and Appreciating Microbial Motility**

Daisuke Nakane (The University of Electro-Communications), Yoshitomo Kikuchi (AIST)

Cosponsor: Grant-in-Aid for Transformative Research Areas (B) The reason why microbes are moving

1_5_W-p01 **Swimming ability and flagellar motility of the colonial volvocine alga
*Pleodorina starrii***

*Azusa Kage (1), Kohei Takahashi (2), Hisayoshi Nozaki (2),
Tetsuya Higashiyama (2), Shoji A. Baba (3), Takayuki Nishizaka (1)

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School of Science, The University of Tokyo, (3) Department of Biology, Ochanomizu University

1_5_W-p02 **Bacterial characteristics and survival strategies of non-*Helicobacter*
pylori Helicobacter species infecting the human stomach**

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1_5_W-p03 **Swimming motility of helical bacteria reconstructed in a minimal
genome bacterium JCVI-syn3B**

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(3) OCARINA, Osaka Metropolitan Univ.

1_5_W-p04 **Can “behavioral ecology” be applied to microorganisms?**

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