

30th. November

Room 31

9:30 - 12:00

Symposium

9:30 - 12:00

Cool Earth via Microbes –Research Frontiers in Mitigation of N₂O Emission–

Tsubasa Ohbayashi (Institute for Agro-Environmental Sciences, NARO)
Satoshi Ohkubo (Grad. Sch. of Life Sci., Tohoku Univ.)

Cosponsor: Cool Earth via dSOIL (Moonshot project)

3_31_S-a01 **Diversity study of bacterial nitrifiers in agricultural soils and development of novel nitrification inhibitors**

*Tsubasa Ohbayashi, Yong Wang, Luciano Nobuhiro Aoyagi,
Shintaro Hara, Kanako Tago, Masahito Hayatsu

Institute for Agro-Environmental Sciences, NARO

3_31_S-a02 **Hybrid formation of nitrous oxide (N₂O) gas by nitrite reductase**

*Mamoru Oshiki (1), Akito Kobayashi (1), Yuki Nakaya (1), Shohei Hattori (2),
Sakae Toyoda (3), Hisashi Satoh (1), Satoshi Okabe (1)

(1) Faculty of Engineering, Hokkaido University, (2) ICIER, Nanjing University,
(3) School of Materials and Chemical Technology, Tokyo Institute of Technology

3_31_S-a03 **Reduction of N₂O emission using N₂O-reducing ability of soybean bradyrhizobia**

*Manabu Itakura

Grad. Sch. of Life Sci., Tohoku Univ.

3_31_S-a04 **Are complete denitrifying clade II *nosZ* N₂O-reducing bacteria promising candidates as N₂O sinks in wastewater bioreactors?**

Akihiko Terada

Inst. Eng., Tokyo Univ. Agr. & Technol.

3_31_S-a05 **Toward Mechanistic Understanding of Aerobic N₂O Reduction**

Satoshi Ishii (1)

(1) BioTech. Inst., Univ. Minnesota

3_31_S-a06 **Characterization of N₂O-reducing microbes based on single soil aggregate analysis**

*Satoshi Mitsunobu(1), Rota Wagai(2), Hiroaki Shimada(3), Hiromi Kato(4), Koji Ito(2),
Kiwamu Minamisawa(4)

(1)Ehime Univ., (2)NARO, (3)Obihiro Univ. Agri. Vete. Med., (4)Tohoku Univ.

3_31_S-a07 **Exploration of N₂O-reducing soil microbes by Citizen Science**

*Satoshi Ohkubo(1), Yuichi Aoki(2, 3), Hiromi Kato(1), Shusei Sato(1),
Masaru Bamba(1), Miho Kikuchi(1), Kiwamu Minamisawa(1)

(1) Grad. Sch. of Life Sci., Tohoku Univ.,

(2) Tohoku Medical Megabank Organization, Tohoku University,

(3) Graduate School of Information Sciences, Tohoku University

12:00

Lunch time

Let's move to the Main Hall

13:00

~ Main Hall ~

Award Ceremony 13:00-13:40

Award Lecture 13:50-15:50

Closing Ceremony 15:50-16:00

16:00

30th. November

Room 41

9:30 - 12:00

ASME Session Symposium

9:30 - 12:00

9:30 - 10:45

Microbial ecology in marine, fresh water,
and terrestrial systems

3_41_S-a01 **High-resolution microbial eco-genomics in deep freshwater lakes**

*Yusuke Okazaki (1)

(1) Institute for Chemical Research, Kyoto University

3_41_S-a02 **Assessing Ecological Disturbances in Groundwater Systems: Insights from Microbial Community Structure and Phenotypic Profiling**

Jin-Kyung Hong(1), Soo Bin Kim(1), Eun Sun Lyou(1), Jaeuk Youn(1), and Tae Kwon Lee(1)*

(1) Department of Environmental and Energy Engineering, Yonsei University,
Wonju 26493, Republic of Korea

3_41_S-a03 **Community assembly processes of deadwood mycobiome in a tropical forest revealed by long-read third generation sequencing**

*Yu-Ting Wu(1,2), Witoon Purahong(3), Li Ji(3,4)

(1) Department of Forestry, National Pingtung University
of Science and Technology, Pingtung

10:45 - 12:00

Microbial ecology in extreme environment
and geomicrobiology

3_41_S-a04 **Alteration of Soil Microbiome and Nitrogen Cycle by Earthworm Invasion in the Hardwood Forest of Northern Minnesota, USA**

*Jeonghwan Jang (1), Satoshi Ishii (2)

(1) Division of Biotechnology and Advanced Institute of Environment and Bioscience,
Jeonbuk National University, Iksan, Jeonbuk 54596, Republic of Korea,
(2) BioTechnology Institute and Department of Soil, Water, and Climate,
University of Minnesota, St. Paul, MN 55108, USA

3_41_S-a05 **How did life and photosynthesis co-evolve?**

Arisa Nishihara (1), Yusuke Tsukatani (2), Chihiro Azai (3), *Masaru K. Nobu (4)

(1) Department of Life Science and Biotechnology, The National Institute of Advanced Industrial
Science and Technology, (2) Biogeochemistry Research Center, Japan Agency for Marine-Earth
Science and Technology, (3) Department of Life Sciences, Chuo University,
(4) Institute for Extra-Cutting-Edge Science and Technology Avant-Garde Research,
Japan Agency for Marine-Earth Science and Technology

3_41_S-a06 **Using Nernst-Monod model to evaluate Shewanella decolorationis
NTOU1 electrochemical kinetics: different precultural and carbon-felt-
electrode -pretreatment methods**

*Shiue-Lin Li(1)

(1) Department of Environmental Science and Engineering, Tunghai University

12:00

Lunch time

Let's move to the Main Hall

13:00

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Award Ceremony 13:00-13:40

Award Lecture 13:50-15:50

Closing Ceremony 15:50-16:00

16:00

30th. November

Room 43

9:30 - 12:00

Symposium

9:30 - 12:00

Recent advances in cultivation, metagenomics, and taxonomic code (SeqCode)

Yoichi Kamagata(AIST), Takuro Nunoura (JAMSTEC)

3_43_S-a01 **Recent advances in metagenomics, uncultured microbes and taxonomic code (SeqCode)**

*Yoichi Kamagata
AIST

3_43_S-a02 **Names of uncultivated microorganisms under International Code of Nomenclature of Prokaryotes**

*Takashi Itoh
RIKEN-BRC, JCM

3_43_S-a03 **What is SeqCode?**

*Takuro Nunoura
CeBN, JAMSTEC

3_43_S-a04 **Can we trust MAGs in public databases?**

*Yosuke Nishimura
CeBN, JAMSTEC

3_43_S-a05 **Unveiling the story: From the isolation of *Candidatus* phylum Atribacteria to the proposal and validation of phylum Atribacterota**

*Taiki Katayama
AIST

3_43_S-a06 **Troubles in naming the first validated DPANN archaeon**

*Shingo Kato
RIKEN-BRC, JCM

3_43_S-a07 **Can genomic information provide clues for culturing uncharted microorganisms?**

*Masaru K. Nobu
X-star, JAMSTEC

12:00

Lunch time

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13:00

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Award Ceremony 13:00-13:40

Award Lecture 13:50-15:50

Closing Ceremony 15:50-16:00

16:00

30th. November

Room 44

9:30 - 12:00

Break room

12:00

Lunch time

Let's move to the Main Hall

13:00

~ Main Hall ~

Award Ceremony 13:00-13:40

Award Lecture 13:50-15:50

Closing Ceremony 15:50-16:00

16:00

30th. November

Room 525354

9:30 - 12:00

Symposium

9:30 - 12:00

Electromicrobiology opens the door for future: Exploration, Synthetic genomics, and Application

Shun'ichi Ishii (JAMSTEC)

3_5_S-a01 What to do for microbial electrochemistry to be useful for our society

*Kazuya Watanabe

Tokyo University of Pharmacy and Life Sciences

3_5_S-a02 Comprehensive analysis of electroactive microorganisms inhabiting iron-rich chimneys in the bay of Satsuma-Iwo Jima

*Shun'ichi Ishii (1), Tatsuhiko Hoshino (1), Shino Suzuki (1, 2, 3), Shoichi Kiyokawa (4)

(1) JAMSTEC, X-STAR, (2) JAXA, ISAS, (3) RIKEN, CPR, (4) Kyushu Univ.

3_5_S-a03 Exploration for electro-microbial ecosystems in deep-sea hydrothermal fields

*Masahiro Yamamoto (1,2), Yoshifumi Kawada (3), Yoshihiro Takaki (1), Kosuke Shimoniida (1,2), Mariko Shitara (1,2), Akiko Tanizaki (1), Hiroyuki Kashima (1), Miho Hirai (1), Yutaro Takaya (4), Tatsuo Nozaki (3), Takafumi Kasaya (3), Ken Takai (1)

(1) X-star, JAMSTEC, (2) Grad. Sch. of Nanobioscience, Yokohama City Univ., (3) MRU, JAMSTEC, (4) Sch. of Eng., Univ. Tokyo

3_5_S-a04 Exploration of Novel Current-producing Microorganisms

*Kengo Inoue

Department of Biochemistry and Applied Biosciences, Faculty of Agriculture, University of Miyazaki

3_5_S-a05 Biotechnologies for carbon dioxide utilization using electric energy

*Souichiro Kato

BPRI, AIST

12:00

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