Seto Inland Sea Carbon-Neutral International Collaborative Center, Hiroshima University, International Symposium 2026

Co-organized by the Western Branch of the Society for Biotechnology, Japan

Planetary Health and Sustainable Biotechnologies:

Harnessing Microbial Potential for a Circular Bioeconomy

January 20, 2026

Program

11:00 – 12:00 Poster Session 1*

13:00 – 16:00 Symposium

16:00 – 17:00 Poster Session 2*

17:00 – 19:00 Networking Reception / Social Gathering (reservation required)

* *Poster Sessions 1 and 2 feature the same set of posters. Presenters may attend either or both sessions.*

Venue: Hiroshima University Faculty Club, 2F Reception Hall
（広島大学学士会館2階レセプションホール）

Organizers

Ryuichi Hirota, Professor, Program of Biotechnology (Green Division)

Takeshi Igawa, Associate Professor, Program of Basic Biology (Blue Division)

Fumihito Maruyama, Professor, IDEC/Planetary Health Science (Sustainability Division)

Symposium Timeline

Time **Program**

13:00 – 13:05 Opening Remark
Ryuichi Hirota (Hiroshima University)

13:05 – 13:35 Invited Talk 1: ***Masaru K. Nobu (JAMSTEC, Japan)***
Microbial Evolution and Global Ecosystems: A Planetary Health Perspective
Talk 25 min + Q&A 5 min
Chair: *Ryuichi Hirota (Hiroshima University)*

13:35 – 14:05 Invited Talk 2: ***Deb Jaisi (University of Delaware, USA)***
Innovative Stable Isotope Tracing for Soil Health Diagnostics
Talk 25 min + Q&A 5 min
Chair: *Fumito Maruyama (Hiroshima University)*

14:05 – 14:20 Break (15 min)

14:20 – 14:50 Invited Talk 3: ***Mohamad Padri (KAUST, Saudi Arabia)***
Microalgal Research and Prospects for Sustainable Development in Kingdom Saudi Arabia and Beyond
Talk 25 min + Q&A 5 min
Chair: *Takeshi Igawa (Hiroshima University)*

14:50 – 15:20 Invited Talk 4: ***Shunsuke Sato (Kaneka Corporation, Japan)***
Biodegradable Polymer Green Planet: Development, Commercialization, and Global Expansion
Talk 25 min + Q&A 5 min
Chair: *Nguyen Van Thinh (Hiroshima University)*

15:20 – 15:45 Panel Discussion (25 min)
Moderator: *Ryuichi Hirota*

15:45 – 15:50 Closing Remark
Toshinobu Machida (Chair, SCNC)

◆ Notes for Poster Presenters

To ensure that all participants have sufficient time to view the posters and engage in discussion, the same set of posters will be exhibited twice on the same day. Presenters are encouraged to stand by their posters during either or both sessions.

- The exhibited posters are identical in both sessions.
- Presenters may choose the session(s) during which they will be available.
- Posters remain displayed throughout the symposium.
- Please complete poster setup during 10:00-10:45, and remove posters after 17:00.

発表者へのご案内

ポスターセッション（2 回実施）
より多くの参加者にポスターを閲覧していただくため、同一内容のポスターセッションを 2 回繰り返し実施します。発表者の方は、どちらか一方、または両方の時間帯にポスター前で対応してください。

- 両セッションとも同じポスターを展示します。
- 対応可能な時間帯を自由に選択してください（両方歓迎）。
- ポスターはシンポジウムを通して掲示します。
- 設営：10:00-10:45 の間に完了、撤収：17:00 以降にお願いします。

◆ Networking Reception / Social Gathering (reservation required)

The reception will be held as a standing buffet at La Bohème, Gakushikaikan. Halal food will be available. Faculty and general participants: 6,000 JPY, Students: 4,000 JPY (tentative)
If the number of participants exceeds the capacity, we may need to close registration.
会場：学士会館 1F ラ・ボエーム。会費制、立食形式で行います（要予約）。教員、一般：6000 円、学生 4000 円（予定）です。参加者多数の場合は締め切らせて頂きます。ハラルフードも準備されています。

学士会館：https://www.hiroshima-u.ac.jp/centers/welfare_facilities/faculty_club
ラ・ボエーム： https://www.eventos.co.jp/store/detail?id=591

Invited Speaker Information

1. Masaru K. Nobu (JAMSTEC, Japan)

Microbial Ecology, Evolution, and Global Biogeochemical Cycles

Masaru K. Nobu is a Senior Scientist at the Japan Agency for Marine-Earth Science and Technology (JAMSTEC), specializing in microbial ecology, evolution, and biogeochemistry. His research integrates metagenomics, microbial physiology, and evolutionary genomics to uncover the roles of uncultivated microorganisms in global elemental cycles. He has contributed to exploration of novel microbial lineages and metabolic processes across diverse ecosystems, and his work has been published in leading journals including *Nature*, *Nature Microbiology*, and *PNAS*. His current focus explores microbial processes that underpin planetary health and ecosystem resilience.

2. Deb P. Jaisi (University of Delaware, USA)

Stable Isotope Geochemistry and Soil Health Diagnostics

Deb P. Jaisi is a Professor of Biogeochemistry at the University of Delaware. He is internationally recognized for his contributions to the development of isotopic tracers and nutrient cycling research. His group develops innovative multi-isotope techniques to trace phosphorus, carbon, and other nutrient dynamics in soils, sediments, and agroecosystems. His work bridges molecular-scale mechanisms with large-scale environmental processes and advancing diagnostic tools for soil health and sustainable agriculture. He has authored numerous high-impact papers and collaborates globally on issues related to food security and nutrient management.

3. Mohamad Padri (KAUST, Saudi Arabia)

Microalgal Biotechnology and Sustainable Systems Engineering

Mohamad Padri is a researcher at the Beacon Development Department of King Abdullah University of Science and Technology (KAUST). His expertise spans microalgal biotechnology, bioprocess engineering, and sustainable development strategies in arid-region ecosystems. He works on harnessing microalgae for biomass production, waste/wastewater treatment, carbon capture, and bio-based materials, contributing to Saudi Arabia's initiatives for circular bioeconomy and sustainability. He collaborates with academic and industrial partners to advance scalable and deployment of environmentally responsible algal technologies globally.

4. Shunsuke Sato (Kaneka Corporation, Japan)

Biodegradable Polymers, Industrial Biotechnology, and Green Materials

Shunsuke Sato is Director at Kaneka Corporation and a leading developer of the Green Planet®, a fully biodegradable polymer derived from microbial fermentation processes. His work focuses on the design, production, and commercial scale up of eco-friendly materials that reduce plastic waste and support circular bioeconomy frameworks. With extensive experience in industrial biotechnology, he oversees R&D, regulatory compliance, and global market implementation of sustainable polymer solutions. His contributions have positioned Kaneka as a major global innovator in green materials.