



TARGETING MICROBIOTA

SEPT. 24 > 25 2026 > THE UNIVERSITY OF TOKYO

International Society
of **m**icrobiota

RIKEN

2ND
CONJOINT
MEETING



AGENDA

Second Conjoint Meeting ISM and RIKEN Targeting Microbiota 2026

September 24 - 25, 2026 – The University of Tokyo, Japan

Dear Colleagues and Friends,

It is a great pleasure to welcome you to The University of Tokyo for the Second Conjoint RIKEN–ISM Targeting Microbiota Meeting.

Over these two days, scientists, clinicians and innovators from Japan and around the world come together around a central question: how can we move microbiota science from observation to mechanism, and from mechanism to meaningful intervention?

This is the scientific ambition of Tokyo Microbiota 2026.

Day 1 explores how we understand and measure the microbiome, from host–microbiota dialogue and microbial metabolites to single-cell and strain-level resolution.

Day 2 moves from function to intervention, with particular attention to the microbiota–mitochondria axis, healthy aging, precision microbiome medicine, next-generation therapeutics and innovation. This progression is already reflected in the scientific structure of the program.

Beyond the lectures, we hope this meeting will create space for discussion, new collaborations and unexpected scientific connections. The diversity of disciplines represented here is essential if microbiota research is to move toward causality, precision and clinical impact.

We thank all speakers, chairs, researchers, partners and participants who have travelled to Tokyo and contributed to making this meeting possible.

Welcome to Tokyo. We wish you two stimulating and productive days of science and exchange.

On behalf of the Meeting Organizers,

Prof. Hiroshi Ohno

RIKEN Center for Integrative Medical Sciences, Japan
President, Tokyo RIKEN–ISM Targeting Microbiota 2026

Prof. Marvin Edeas

Institut Cochin, Université Paris Cité, France
Chairman of the ISM Scientific Board

This meeting is part of the RIKEN Symposium Series.

Day 1 – From Host Dialogue to Microbiome Resolution

Thursday, September 24, 2026

8h20 Welcoming of attendees & Badge Distribution

8h45 **Welcome Introduction**



Hiroshi Ohno,
President, Tokyo RIKEN-ISM Targeting Microbiota 2026 meeting



Marvin Edeas,
Chairman of the ISM Scientific Board

8h50 **Opening Remarks**



Opening Remarks: 2nd Conjoint RIKEN–ISM Targeting Microbiota 2026
Masayuki Amagai, Director, RIKEN Center for Integrative Medical Sciences (IMS)

9h00 **Keynote Speech**



Can IgA Reprogram the Human Gut Microbiota in Inflammatory Bowel Disease?
Reiko Shinkura, The University of Tokyo, Japan

Session 1 – Host–Microbiota Dialogue: From Barriers to Microbial Metabolites

Chairs: Masayuki Amagai, Reiko Shinkura



9h30 **Gut Microbes, Tryptophan Metabolism, and Pulmonary Hypertension: A Targetable Gut–Lung Axis**
Yoshikazu Nakaoka, National Cerebral and Cardiovascular Center Research Institute, Japan



9h55 **When Synapses Shape the Microbiome: Decoding the Gut–Brain Axis in Autism**
Elisa Hill-Yardin, RMIT University, Australia

10h20 Coffee Break, Networking and Poster Sessions



11h00 **From Quorum-Sensing-Driven Pathogenesis to Microbiome - Targeted Therapies in Atopic Dermatitis**
Yumi Matsuoka, The University of Osaka, Japan

**nature
portfolio**

11h25 **Global Grants for Gut Health: Connecting Microbiome Science with Global Funding Opportunities**
Nature Portfolio & Yakult

Yakult

11h35 **From Japanese Scientific Excellence to Global Funding: How Can We Build Stronger Bridges?**
20 Minutes Panel Discussion

Presented by Nature Portfolio and Yakult

Panel: Hiroshi Ohno, Kiyoshi Takeda, Reiko Shinkura, Yumi Matsuoka, Jeffrey Robens & Marvin Edeas
Moderator: David Ortega-Reyes



11h55 Short Oral Presentations (10 Minutes)

Microbiota-Dependent Bile Acids Regulate Alveolar Macrophage and Fibroblast Immunometabolism to Protect Against Allergic Airway Inflammation

Tomasz Wypych, Nencki Institute of Experimental Biology, Poland

Cross-Species Reactive IgA Balances Pathobionts and Beneficial Commensals via Physicochemical Pattern Recognition

Genta Furuya, The University of Tokyo, Japan

Intestinal Epithelial Autophagy Regulates Glucose Metabolism via the Gut Microbiome

Pei-Chen Chen, National Cheng Kung University, Taiwan

12h25 Lunch Break, Networking, Group Photo

Chairs: GwangPyo Ko, Kiyoshi Takeda



13h45 **Microbial Metabolites as Drivers of Gastric Mucosal Defense**

Naoko Satoh-Takayama, RIKEN Center for Integrative Medical Sciences (IMS), Japan



14h10 **Microbiota-Metabolite Control of Cardiac Injury and Repair**

Patrick C.H. Hsieh, Institute of Biomedical Sciences, Academia Sinica, Taiwan



14h35 **The Microbiota–Muscle Axis in Aging:
How TMAO Remodels Mitochondria and Promotes Sarcopenia**

Ippei Shimizu, National Cerebral and Cardiovascular Center Research Institute, Japan

15h00 Short Oral Presentations (10 Minutes)

Gut Microbiota Maturation and a Mucin–Aromatic-Metabolite Axis Are Associated with Postnatal Growth Faltering in Preterm Infants

Yi-Hsiu Weng, National Cheng Kung University, Taiwan

**Gut Acidification Impairment Links Altered Acidogenic Microbiota to Infantile Eczema:
A Cross-Sectional Study**

Liyang ZHU, Stellar Messenger Biosciences. Co., Ltd. China

Can Gut Microbiota-Derived Cobalamin Protect Bones in Postmenopausal Women? – The MicroBone Study

Pawel Szulc, Université de Lyon, France

15h30 Coffee Break, Networking, Poster Presentation



Session 2 – Single-Cell and Strain-Level Microbiome Resolution

Chairs: Elisa Hill-Yardin, Dingbo Lin



16h00 **Single-Cell Visualization and Australia's Human Microbiome Biobank: New Tools for Strain-Level Microbiome Science**
Gene Tyson, Queensland University of Technology, Australia



16h25 **From Strain Diversity to Mobile Element Dynamics in Human Microbiomes with Single-Cell Genomics**
Masahito Hosokawa, Waseda University, Japan



16h50 **Single-Cell Ramanomics Platform Enables Rapid Probiotic Quality Assessment and Strain Traceability**
Jian Xu, Qingdao Institute of BioEnergy and Bioprocess Technology - CAS, China



17h15 **Resolving Microbial Drivers of Colorectal Cancer: From Population Signatures to Strain-level Resolution and Mutational Footprints**
Takuji Yamada, Institute of Science Tokyo, Japan

17h40 Short Oral Presentations (10 Minutes)

From Food to Microbes: Using AI to Map the Diet–Gut Microbiome Connection
Pilar Francino, FISABIO, Spain

Growth and Body Composition in Gnotobiotic Mice Receiving Microbiota from Infants Consuming a Meat- vs. Dairy-Based Complementary Diet
Minghua Tang, Colorado State University, USA

Long-Read Metagenomics Resolves the Gut Microbiota of a Long-Lived Domestic Cat
Mayuko Tokumaru, National Institute of Genetics, Japan

Adaptive Evolution of *Staphylococcus aureus* Promotes Bacterial Survival and Functional Modulation of Peritoneal Macrophages During Infection
Barbora Salcman, Immunology Frontier Research Center, Japan

18h30 End of Day 1

19h30 **Gala Dinner**

HAPPO-EN,

1-1-1 Shirokanedai, Minato-ku, Tokyo 108-8631.

For more information: www.happo-en.com

Pick Up: 19h00

A transportation will be provided to HAPPO-EN from the congress venue.

Reserved for ticket holders only –

[Register Here](#)

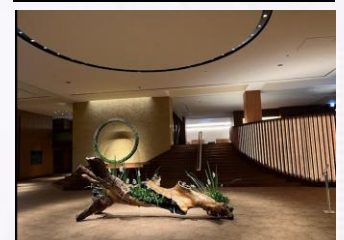
ISM Awards Ceremony

Happo-en Dinner

A special evening to celebrate scientific excellence, innovation, and the next generation of microbiota research.

Three Awards presented by ISM

- Scientific Excellence Award
- Innovation Award
- Young Investigator Award



Day 2 – From Microbiota Function to Precision Intervention

Friday, September 25, 2026

8h30 Welcoming of attendees

9h00 **Opening Remarks**



The Microbiota Sends the Signal. Do Mitochondria Decide the Response?
Marvin Edeas, Université Paris Cité, France

Session 3 – The Microbiota–Mitochondria Axis in Aging and Resilience

Chairs: Marvin Edeas, Patrick Hsieh



9h30 **The Mitochondria–Microbiota Dialogue: Impact on Health**
Yuma Yamada, Hokkaido University, Japan



9h55 **Carotenoid Metabolism Regulates the Microbiota–Mitochondria Axis: From Diet to Single-Cell Heterogeneity**
Dingbo Lin, Oklahoma State University, USA

10h20 Coffee Break, Networking, Poster Presentation



11h00 **Living Probiotics, Microbial Metabolites, and Mitochondrial Resilience: A Pathway to Healthy Aging**
Dongryeol Ryu, Gwangju Institute of Science and Technology (GIST), Korea

11h25 Short Oral Presentations (10 Minutes)

Bidirectional Interactions Between Gut Microbiota and Host Energy Metabolism During Q-Neuron-Induced Torpor
Reina Miyajima, RIKEN Center for Biosystems Dynamics Research (BDR), Japan

Session 4 – Reprogramming Human Health Through the Microbiome From Precision Diagnostics to Next-Generation Therapies

Chairs: Jian Xu, Dongryeol Ryu



11h35 **Strain- and Function-Resolved Metagenomics to Identify Microbial Drivers of Chronic Disease**
Wataru Suda, RIKEN Center for Integrative Medical Sciences (IMS), Japan



12h00 **Precision Microbiome Therapeutics to Enhance Cancer Immunotherapy**
Sin-Hyeog Im, Pohang University of Science and Technology (POSTECH), Korea

12h25 Lunch Break, Networking and Poster



13h45 **Development of Smart Biodelivery Systems for Personalized Disease Treatment Based on the Gut Microbiome**
GwangPyo Ko, Seoul National University, Korea



14h10 Short Oral Presentations (10 Minutes)

Gut Commensals Alleviate Atherosclerosis by Modulating Cholesterol Metabolism

Xiaoyu Tang, Shenzhen Bay Laboratory, China

CD19 CAR T Cell Therapy Reshapes the Host Microbiota Immune Axis in Autoimmune Diseases

Yuichi Maeda, University of Osaka, Japan

Cross-Site Oral and Esophageal Microbiome Signatures Define Diagnostic Patterns and Reveal Mechanistic Drivers of Esophageal Squamous Cell Carcinoma

Huizhi Wang, Virginia Commonwealth University, USA

Session 5: Microbiome Innovation Showcase: From Discovery to Impact

Chairs: Sin-Hyeog Im, Gene Tyson

14h40 **Raman-Activated Cell Sorting: A Novel Platform for Label-Free, Non-Disruptive Single-Cell Metabolic Phenotyping**
Ethan Yin, eCyte, USA

14h50 **New-Generation Pomegranate Metabolites & the Gut–Muscle Axis:
A Microbiome Strategy for Muscle Preservation During GLP-1 Therapy**
Mitsuko Kojima, Innovation Labo Co Ltd., Japan

15h00 **From Discovery to Implementation of Natural Product-Derived Postbiotic Metabolites**
Jakub Piwowarski, Medical University of Warsaw, Poland

15h10 **A Novel Microbial Exopolysaccharide from Tulip-Derived *Aureobasidium pullulans* for Epidermal Barrier-Targeted Pore Care**
Da Hyun Lee, Kolmar Korea, Korea

15h20 **Longitudinal Gut Microbiome Modulation by a Polyherbal Formulation During Metformin Therapy:
A Randomized Crossover Trial**
Monta Brībīva, The National Institute of Research and Innovation, Latvia

15h30 **Exosome–Microbiome Crosstalk Across the Gut–Liver Axis as a Key Mechanism Supporting
Estrogen Homeostasis and Metabolic Balance**
Sawako Hibino, Sawako Clinic x YS, Japan

15h40 **Early-Life Supplementation with *Bifidobacterium longum* subsp. *infantis* YLGB-1496 Supports Gastrointestinal Maturation in
Healthy Formula-Fed Infants: A Multicenter Randomized Controlled Trial**
Yumei Zhang, Peking University, China

15h50 Concluding Remarks and Awards by Hiroshi Ohno & Marvin Edeas
Nature Portfolio & Yakult Awards: JPY 100,000 each

16h10 Exchange, Networking & Drinks

17h00 End of Tokyo Microbiota 2026

For more information, please visit: www.tokyo.microbiota-ism.com

**TARGETING
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13TH
WORLD
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International Society
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TARGETING MICROBIOTA

TOWARDS CLINICAL REVOLUTION

PROGRAM



NOVEMBER
4-5, 2026



MÁLAGA,
SPAIN