



Keio University

Human Biology-Microbiome-Quantum Research Center (Bio2Q)

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JOIN WORLD LEADING RESEARCHERS AT THE 4TH WPI-Bio2Q SYMPOSIUM

WPI: World Premier International Research Center Initiative
Bio2Q: Human Biology-Microbiome-Quantum Research Center

The 4th Keio University WPI-Bio2Q International Symposium
Integrating Biology, Microbiome, and Metabolomics for Healthy Longevity

VENUE: On-site only / English
Keio University Shiba-Kyoritsu Campus
1-5-30 Shibakoen, Minato-ku, Tokyo 106-8512 Japan

12/2 Tue.
1:00PM - 6:00 PM

Clary B. Clish
Broad Institute of MIT and Harvard, USA

Makoto Arita
Keio University Faculty of Pharmacy, Japan

Yuki Sugiura
Keio University, Japan

Per Andren
Uppsala University, Sweden

Rachel Guest
University of Edinburgh, UK

Shijie Cai
University of Oxford, UK

12/3 Wed.
9:30 AM - 3:00 PM

Kenya Honda
WPI-Bio2Q,
Keio University School of Medicine, Japan

Naoko Ohtani
Osaka Metropolitan University, Japan

Elizabeth Johnson
Cornell University, USA

Ara Koh
POSTECH, South Korea

Juntaro Matsuzaki
WPI-Bio2Q,
Keio University Faculty of Pharmacy, Japan

Minako Ito
Kyushu University, Japan

Organizer: Keio University WPI-Bio2Q
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The 4th Keio University WPI-Bio2Q International Symposium will bring together world-leading researchers to explore cutting-edge science at the intersection of biology, microbiome, and metabolomics for healthy longevity.

Join us on December 2-3, 2025, at Keio University Shiba-Kyoritsu Campus for two days of inspiring presentations from distinguished international speakers, including Clary B. Clish (MIT/Harvard), Per Andren (Uppsala University), Rachel Guest (University of Edinburgh), Shijie Cai (University of Oxford), and many other renowned researchers from Japan, USA, UK, Sweden, and South Korea.

This on-site symposium offers a unique opportunity to engage with pioneering research and network with experts in the field. Whether you're a researcher, student, or professional interested in the future of health science, this event promises valuable insights and connections.

Pre-registration is required by November 17. Don't miss this chance to be part of an exciting scientific exchange. We look forward to welcoming you!

INTRODUCTION TO BIO2Q RESEARCH

Series #8: Dr. Haowei Li

Postdoctoral Fellow,

Bio-2 Core

How can we restore lost neural function and decode the emergence of higher intelligence in the human brain? Our research explores these questions by uncovering the molecular logic that governs synaptic connectivity and plasticity across the gut-brain axis, spinal cord, and brain organoids.

By mapping the distribution and regulation of the synaptic organizer Cbln2 in enteric and central circuits, we aim to clarify how peripheral and central networks communicate and adapt. Building on these insights, we use the synthetic synaptic organizer protein CPTX to repair damaged excitatory circuits and promote axonal sprouting after spinal cord injury, with improved motor readouts in preclinical models. In parallel, we apply CPTX to human iPSC-derived brain organoids to test whether enhanced synapses and long-range axons may drive the emergence of working memory and higher-order functions.

Through these efforts, we strive to advance fundamental neuroscience and future translational therapies for neurological disorders and injuries.

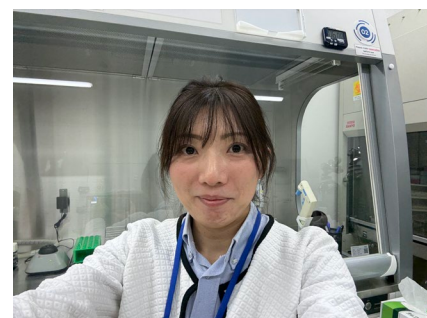


Haowei Li. Used with permission.

WELCOME ON BOARD!

We are delighted to introduce a new member who joined Bio2Q.

MS. NORIKO KAGAMI
TECHNICAL STAFF



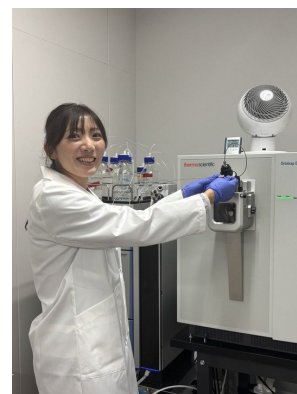
Noriko Kagami. Used with permission.

Hello everyone, I'm Noriko Kagami, the newest member of the Bio2Q technical staff.

I studied clinical laboratory science at university and have worked as technical staff in university laboratories for approximately 10 years in the fields of molecular immunopathology, biology, nephrology/hematology, and molecular glucose metabolism control.

My main experimental skills are as follows: siRNA/DNA plasmid transfection, experience in mammalian cell culture techniques including SDS PAGE and Western blotting, genetic analysis, mouse colony maintenance, breeding, husbandry, drug administration (oral, intraperitoneal, subcutaneous, and intravenous), tissue dissection, organ harvesting, cell culture, immunohistochemical analysis, ELISA, and HPLC etc. Currently, I assist with the passaging of organoids and iPS cells, assist with colony stocking of gut bacteria, and perform laboratory maintenance tasks.

At Open Lab, we will continue to support you so that your research can proceed smoothly. We look forward to your continued support.



Noriko Kagami. Used with permission.

Bio2Q PRESENTS AT KEIO UNIVERSITY'S MITA-KAI ALUMNI HOMECOMING DAY



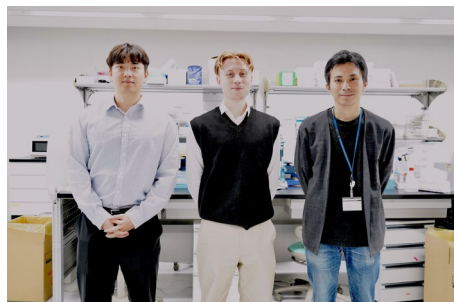
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On October 19, Bio2Q participated in Mita-Kai Homecoming Day (Keio Rengo Mita-Kai Taikai) at Hiyoshi Campus. The center's activities were introduced through four presentations by its members: Oltea Sampetean, PI and Administrative Director, gave an overview of Bio2Q; Takahiko Koyama, PI, discussed AI and quantum computing; Kunimichi Suzuki, Jr. PI, presented on cryo-electron microscopy; and Yasumichi Arai, PI and Director of the Center for Supercentenarian Medical Research, shared insights on longevity research. Approximately 100 attendees listened with great interest, demonstrating strong enthusiasm for Bio2Q's interdisciplinary approach to biological research.



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MEET OUR NEW RESEARCH INTERSHIP STUDENTS AT Bio2Q



From left, Han Joo You, Maximilian Drees, and Prof. Ishigaki.
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Bio2Q welcomes four research internship students this fall. This issue introduces Maximilian Drees, a third-year student at Heinrich-Heine-University in Germany, and

Han Joo You, a recent graduate from the University of Tsukuba's Graduate School of Comprehensive Human Sciences. They are conducting research in the Ishigaki Laboratory through November.

Bio2Q's Research Internship Program offers 4-8 weeks' research opportunities for bachelor's and master's students with interest in advancing to Keio University's Graduate Schools of Medicine, Science & Technology, or Pharmacy, with monetary support for round-trip airfare and daily allowances.

To learn more or apply via the Keio Web Entry System, scan the QR code here!



THE 19TH METABOLOME SYMPOSIUM

The WPI-Bio2Q team participated in the symposium, which took place from October 15 to 17, 2025, at Kobe University in Japan. Makoto Arita, PI, chaired a session, and Tomoyoshi Soga, PI, Yuki Sugiura, Jr. PI and Yosuke Oba, Assistant Prof., Graduate School of Pharmaceutical Sciences, delivered valuable lectures. Yuki Nishida and Niina Ishida, Institute for Advanced Biosciences, Minami Hosoya and Junta Komamura exhibited Bio2Q activities. Approximately 300 people participated in lively scientific discussions.

(Junta Komamura, URA)



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FIRST COLLABORATION WITH THE INTERNATIONAL OFFICE KEIO UNIVERSITY!



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Bio2Q organizes social events approximately every two months, bringing together members from diverse countries, backgrounds, and fields of specialization. These gatherings offer a valuable opportunity for participants to connect—not only to exchange scientific perspectives but also to share practical tips for living in Japan. Attendance has been gradually increasing with each event.

At the latest event, held on September 29, we welcomed 38 participants, including four international students currently studying at Keio University. Among them were undergraduate students from the partner universities of the Keio University School of Medicine; two from Medical University of Innsbruck (Austria) and one from Kaohsiung Medical University (Taiwan), who are here as part of their clinical rotations. This event was held in collaboration with the International Office, which coordinates various international exchange programs for medical students at the Shinanomachi Campus.

More information about Keio's International Students Clinical Elective Program is available through the QR code below.



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UPCOMING EVENTS

November 4 (Tue) -5 (Wed)
Keio Medical Science Prize Event
@Shinanomachi

November 15 (Sat)
The 14th WPI Science Symposium
@Tsukuba International Congress Center

November 20 (Thu)
16:00-17:00
WPI-Bio2Q Open Seminar
by Dr. Fumiaki Imamura (Cambridge)
@Shinanomachi

December 2 (Tue) -3 (Wed)
The 4th WPI-Bio2Q
International Symposium @Shiba-Kyoritsu

December 4 (Thu)
Wuhan University visit
@Shinanomachi

December 12 (Fri)
KEIO TECHNO-MALL 2025
@Yurakucho

Science Meeting Series

November 5 (Wed) 14:00-15:00
#33: Wataru Shihoya, Jr. PI
@Shinanomachi and Zoom (Hybrid)

November 19 (Wed) 14:00-15:00
#34: Kazuyoshi Ishigaki, PI
@Shinanomachi and Zoom (Hybrid)

The next "Bio2Q Connect" will be issued on November 29, 2025

