As of June 9, 2026

Tentative Program

Japan-US Research Collaboration Week (JURC) 2026

Wednesday, July 22 - Friday, July 24
Stanford University School of Medicine

Wednesday, July 22

8:30-9:50 **Opening Plenary**

Venue: LK130, Li Ka Shing Center for Learning

Remarks:

Ronald Pearl, Stanford University
Hiroshi Amano, Nagoya University
Toshihiko Nishimura, Stanford University
Takeshi Usami, Japan Science and Technology Agency
Others to be determined

Keynote Speech:

To be determined

10:00-12:00 **Cooling the Earth with Diamonds**

Venue: LK130, Li Ka Shing Center for Learning

Session Outline: See below for details

Speakers:

Hiroshi Amano, Nagoya University
Hideaki Yamada, National Institute of Advanced Industrial Science and Technology (AIST)
Seong woo Kim and **Koji Koyama**, Orbray Co., Ltd.
Firooz Falil, Northern Carbon
Eiji Yagyu, Mitsubishi Electric Corporation
Srabanti Chowdhury, Stanford University

Session Organizers:

Hiroshi Amano, Nagoya University
Srabanti Chowdhury, Stanford University

12:10-13:30 **Luncheon Session on Alzheimer's Disease (tentative)** by the Central Institute for Experimental Medicine and Life Science (CIEM)

13:40-15:00 **AI Session (tentative)**

13:40-16:10 **AI for Disaster Risk Reduction**

Venue: Munzer Auditorium, Beckman Center for Molecular and Genetic Medicine

Session Outline: See below for details

Speakers:

Yuichi Ono, Tohoku University
Nico Pascal, UC Disaster Resilience Network
Shunichi Koshimura, Tohoku University

John Rundle, University of California, Davis
Ahmed Ettaf Elbanna, University of South California
Yoshiki Hiruma, Development Bank of Japan Inc.
Shoichi Tateno, Weathernews Inc.
Hisashi Hashimoto, Fujitsu
Others to be determined
Session Organizers:
International Research Institute of Disaster Science, Tohoku University, UC Disaster Resilience Network and World Bosai Forum Foundation in cooperation of Japan Science and Technology Agency

15:10-16:30 **Clinical Regenerative Medicine Session (tentative)**

16:30-18:30 **Bio-Mathematical Approaches Toward Ultra-Early Diseases Prediction and Prevention**
Venue: Munzer Auditorium, Beckman Center for Molecular and Genetic Medicine
Session Outline: See below for details
Speakers:
Naoki Honda, Nagoya University
Shunta Sakaguchi, Nagoya University
Hampei Sasahara, The University of Tokyo
Yoshiharu Yamamoto, The University of Tokyo
Others, to be determined
Session Organizers:
Hiroshi Yamamoto and **Sachiko Ito**, Japan Science and Technology Agency

Thursday, July 23

8:30-10:05 **Special Session hosted by Kanagawa Prefectural Government**
Venue: Berg Hall B and C, Li Ka Shing Center for Learning

10:20-18:20 **JURC Roundtable Forum**
Including **Luncheon Session**
Venue: Berg Hall B and C, Li Ka Shing Center for Learning
Session outline: See below for details
Keynote Speakers:
Hiroshi Amano, Nagoya University (Nobel Prize in Physics 2014)
Thomas Südhof, Stanford University (Nobel Prize in Physiology or Medicine 2013)
Brian Bateman, Stanford University
Kazuhiro Gomi, NTT Research, Inc.
Jeffrey Glenn, Stanford University
Avinash Balachandran, Toyota Research Institute
Others to be determined

19:00-21:30 **Gala Dinner** (Optional)
Venue: Berg Hall B and C, Li Ka Shing Center for Learning

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Friday, July 24

8:00-11:30 **University Startup Growth Strategy Session**

Venue: LK120, Li Ka Shing Center for Learning

Session Outline: To be determined

Speakers: To be determined

Session Organizers:

The University of Tokyo, Kyoto University, Nagoya University, Stanford University, University of California, San Diego, and Japan Agency for Medical Research and Development (AMED) Washington, D.C. Office

11:45-12:45 **Luncheon Session** by Kirin HD

13:00-15:30 **Designing Co-presence of Minds - Toward Nigiwai Economy**

Venue: LK120, Li Ka Shing Center for Learning

Session Outline: See below for details

Speakers:

Sae Kondo, The University of Tokyo / Mie University

Naohiro Matsumura, The University of Osaka

Abby King, Stanford University

Keiko Murayama, Mie University / (Former) Skidmore, Owings & Merrill LLP

Jim Spohrer, Retired IBM

Session Organizers:

Yukio Ohsawa, The University of Tokyo

Sae Kondo, The University of Tokyo / Mie University

Kazuyoshi Shimada, Japan Science and Technology Agency

15:45-17:45 Information and Communications in the Era of Beyond Connectivity — Communications × AI × Security —

Venue: LK120, Li Ka Shing Center for Learning

Session Outline: See below for details

Speakers and Moderators:

Motoaki Yasui, NICT (National Institute of Information and Communications Technology)

Shiho Moriai, NICT

Iwao Hosako, NICT

Naoto Nishizuka, NICT

Nobuhiko Shimura,Skye Investment Managers Co. Ltd.

Others to be determined

Session Organizers:

Motoaki Yasui, NICT

Shiho Moriai, NICT

As of June 9, 2026

Session Outlines

Cooling the Earth with Diamond: Thermal Pathways for Next Generation Power Dense Semiconductors

Rapid advances in power electronics and high performance computing have driven semiconductor chips to unprecedented power densities, making thermal management a critical bottleneck for performance, reliability, and sustainability. This session will explore transformative approaches to heat dissipation using ultra high thermal conductivity materials, with a particular focus on diamond and wide bandgap semiconductor integration.

The session will address fundamental and applied challenges in cooling next generation devices such as GaN, SiC, and advanced AI accelerators, where conventional thermal interface materials and packaging architectures are no longer sufficient. Topics will include diamond substrates and heat spreaders, heterogeneous integration strategies, thermal modeling of extreme heat fluxes, and scalable manufacturing pathways. Emphasis will be placed on connecting materials science breakthroughs with device and system level thermal solutions.

By bringing together experts in materials growth, device physics, packaging, and system engineering from Japan and the United States, this session aims to catalyze new interdisciplinary collaborations. Ultimately, improved thermal management enabled by diamond based technologies not only supports higher power and efficiency in electronics, but also contributes to global energy savings—highlighting how advanced cooling can play a role in "cooling the Earth."

AI for Disaster Risk Reduction

Japan and the United States are developed countries located in the mid-latitude Pacific Ring of Fire, where they face high risks of geological hazards such as earthquakes, tsunamis, and volcanoes, as well as meteorological and hydrological hazards such as typhoons, hurricanes, storms, and floods. Although both countries have advanced levels of science and technology, the growing risks of disasters associated with climate change and major earthquakes have become critical challenges.

In recent years, AI technologies has rapidly advanced and are increasingly being applied in the field of disaster risk reduction. However, it is still difficult to directly rely on AI for decision-making in disaster management.

This session will discuss a scheme for the two countries, separated by the Pacific Ocean, to collaborate on developing concrete measures, particularly AI-based solutions, to reduce disaster risks through the cooperation of researchers, private companies, and investors supporting these efforts.

Bio-Mathematical Approaches Toward Ultra-Early Diseases Prediction and Prevention

Age-related diseases such as cancer, dementia, diabetes, and cardiovascular disease pose major societal challenges, making ultra-early prediction and prevention an urgent priority. However, for many diseases, the processes leading to onset remain insufficiently understood, and robust methods for prediction and prevention are not yet fully established. Increasingly, it is recognized that diseases arise not from a single factor or organ, but from complex interactions among multiple biological systems, highlighting the importance of maintaining overall systemic health through an integrated, whole-body approach.

Against this background, there is growing expectation that integrating diverse biological and clinical knowledge will enable more accurate assessment of disease risk and support the development of future preventive strategies. Through close collaboration among researchers in biology, clinical science, mathematics, and engineering, predictive models are developed and validated using both non-clinical and clinical data, providing a scientific basis for practical applications in healthcare and daily life.

JURC Roundtable Forum

In this forum, we will hear from keynote speakers—including Nobel laureates and business leaders from Japan and the United States—on topics ranging from the frontiers of research to key technologies including artificial intelligence (AI) that are fundamentally transforming science, business, as well as our daily lives. Through small-group roundtable discussions where participants can freely exchange views on these topics across different roles and sectors, we aim to provide an opportunity for mutual learning and deeper networking.

Designing Co-presence of Minds - Toward Nigiwai Economy

Nigiwai refers to a place where diverse people gather sustainably, generating broad economic and social value. It operates through mechanisms rooted in individuals' "minds" shaped by first-person narratives that connect people and activate the potential of a place. At JURC2025, studies using pedestrian flows, video, attractions, and citizen voices demonstrated how such data can support societal decision-making, extending beyond spatial design itself. However, a key question remains: how do these designed or analyzed spaces influence individual narratives, interactions, and behaviors?

JURC2026 focuses on the mind as the source and the result of Nigiwai. We explore methods for designing spaces of mental symbiosis, emphasizing first-person narratives—often unspoken inner states expressed through words or images. By externalizing and visualizing these narratives and their interconnections, the cognitive process of Nigiwai participants will be revealed and deepened. Evaluation should move beyond external indicators like population density, to include the evolution of the thoughts and sensibilities of individuals via their interaction.

This session shifts urban analytics toward internal cognition, integrating perspectives from AI, urban planning, social sciences, and beyond. For initiating global collaboration, aiming to establish a scientific foundation for fostering socially diverse and prosperous environments, we also plan a workshop using our method for an ethical design of Nigiwai society on 25th July.

Information and Communications in the Era of Beyond Connectivity
— Communications × AI × Security —

As we move beyond 5G and toward the next generation of communications, full-scale development of infrastructure that looks further into the future is expected to accelerate. This infrastructure will be characterized by the integrated construction of social systems and digital infrastructure, premised on the advanced utilization of AI, and by the seamless connection and coordination of the physical and cyber worlds as a digital twin.

In this era, the sphere of human activity is expected to expand gradually beyond the Earth's surface to low Earth orbit and onward to the cislunar space. To enable humans to actively engage in these environments anytime and anywhere with both high convenience and assured safety

and security, it will no longer be sufficient merely to enhance infrastructure performance. Instead, operations based on AI-enabled autonomous situational awareness, prediction, and control will become indispensable.

In particular, to ensure safe, secure, and stable operation of infrastructure across both the cyber and physical domains, the establishment of real-world security and cyber-world security with AI at their core will be a key requirement.

In this session, this emerging era is defined as the “Beyond Connectivity era.” Experts from various fields will present their perspectives on the future of network infrastructure premised on AI utilization, new approaches to security, and the structure of ecosystems in which these elements are seamlessly connected with and circulate through economic activities. Based on insights gained from these presentations, the session aims to provide a forward-looking perspective on the future relationship between society and technology in the Beyond Connectivity era.