

The L-INSIGHT logo expresses the possibilities and the future that lies ahead through the wide application of various insights toward the world. The circles symbolize researchers taking wing into the world as well as the explosive expansion of their insights.

#### **Leading Institute**



















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**Research Administration Building 1F** 

By The Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT) © Center for Enhancing Next-generation Research, Kyoto University Printed in Japan 3rd edition 2022





Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT)

"Strategic Professional Development Program for Young Researchers", Ministry of Education, Culture, Sports, Science and Technology-Japan

# L-INSIGHT

The Program for the Development of
Next-generation Leading Scientists with
Global Insight (L-INSIGHT) aims to develop, validate,
and spread programs to train the next-generation of
world-class researchers with global insight
who can spearhead new paths to the future.

# **OUR AIMS**

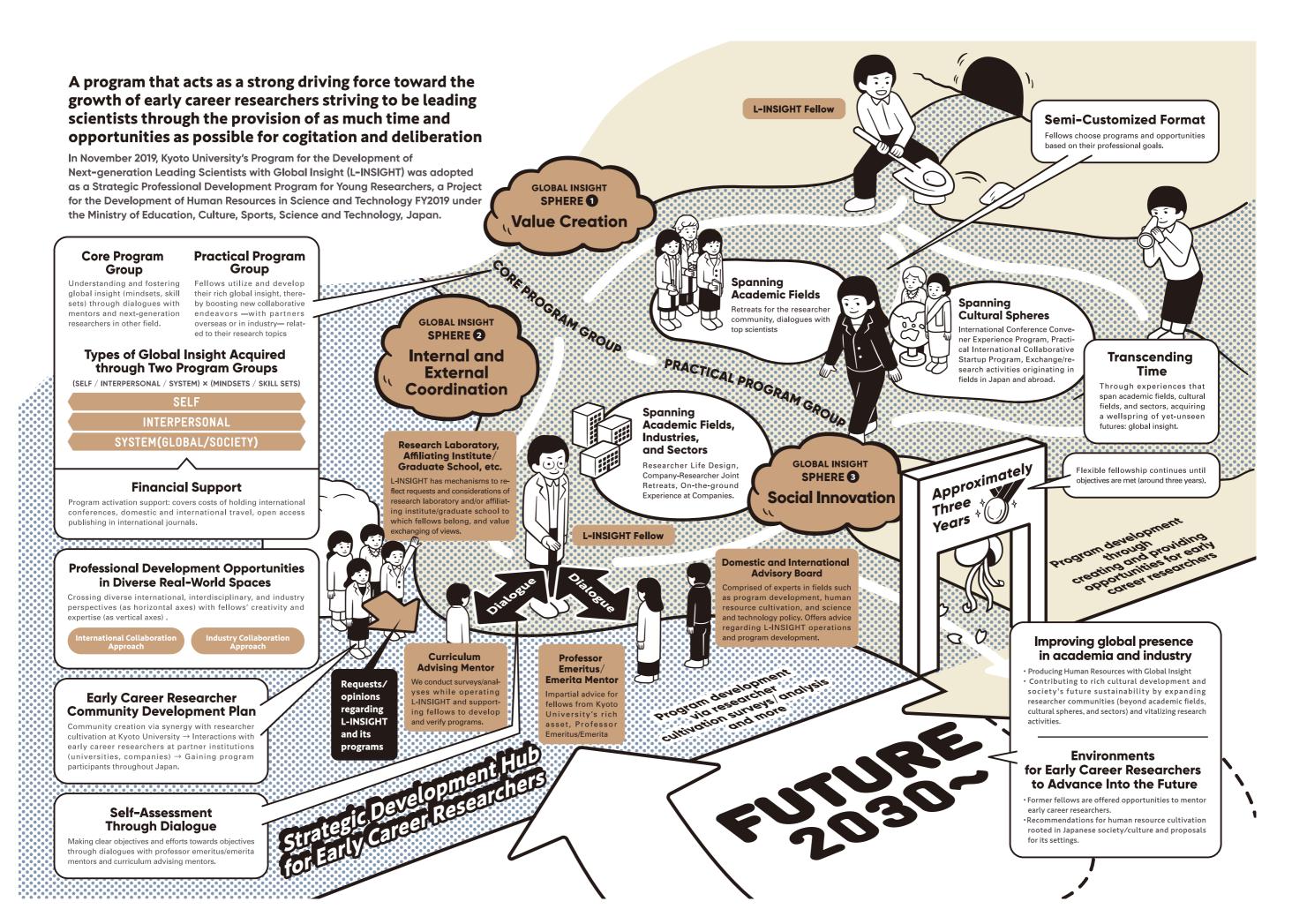
By 2030, researchers of the L-INSIGHT will:

Play leading international roles in cutting-edge research Engage in frontier research and new disciplines Bring about innovation in industries

# WHAT IS "GLOBAL INSIGHT"?

L-INSIGHT defines global insight as the ability to span various boundaries — such as time, geography, academic disciplines, sectors, and cultural spheres — with broad overviews, astute perceptions, and foresight.

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#### **About L-INSIGHT**

#### **Background and Expectations**

In November 2019, Kyoto University's Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT) was adopted as a Strategic Professional Development Program for Young Researchers, a Project for the Development of Human Resources in Science and Technology FY2019 under the Ministry of Education, Culture, Sports, Science and Technology, Japan.

In order to operate the L-INSIGHT program, the Strategic Development Hub for Early Career Researchers was established in the Center for Enhancing Next-generation Research (E-NER), the Center for the Promotion of Interdisciplinary Education and Research (C-PIER), Kyoto University.

Early career researchers (ECRs) currently face inherent difficulties in acquiring the practical training and experience across disciplinary, geographical, and industry-academia boundaries needed to become next-generation leading scientists. Short-term exposure to different disciplines and experiences of cultural exchanges rarely facilitates practical accomplishments in interdisciplinary or frontier research. L-INSIGHT was therefore created to overcome these inadequacies in researcher training programs.

L-INSIGHT aims to develop and implement programs to train scientists with Global Insight who can become world-class researchers by 2030 and beyond, and to create and spread integrated and systematized training programs through continued improvements.

Here, Global Insight refers to the ability to span various boundaries – such as time, geography, academic disciplines, sectors, and cultural spheres – with broad overviews, astute perceptions, and foresight.

Against the backdrop of ever-increasing globalization, international competition in the academic and industrial landscapes is escalating and changing.

More than ever, there is a need for Japan to develop world-class ECRs with Global Insight who can play leading roles in next-generation research. These scientists will be entrusted by society with the role and mission of advancing Japan's academic research in the future and raising its international standing.

We anticipate that the achievements of ECRs supported by L-INSIGHT will increase the presence of academia and industries, and subsequently aid the rich cultural development and sustainability of future societies.

#### **Developing L-INSIGHT**

L-INSIGHT is operated in collaboration with educators, researchers and graduate schools possessing extensive experience in international human resource development. The program will investigate best practice examples of ECR training programs from Japan and overseas, and apply existing initiatives from Kyoto University.

By incorporating these efforts, L-INSIGHT will systematically develop programs that traverse international and industry-academia borders.

Furthermore, core ECRs supported by L-INSIGHT (referred to as "L-INSIGHT Fellows") will be provided with opportunities to clearly identify their own goals and to connect with researchers in partnering industry and overseas institutes, through which L-INSIGHT Fellows will be able to foster, enhance, and expand the skill sets and mindsets needed to achieve their goals.

For this, L-INSIGHT will establish Global Insight competencies, build a method to validate the program, and promote active participation of ECRs from Kyoto University, other education/research institutes, as well as industries/companies.

The knowledge gained in this program will then be used for its expansion in the Kansai region and Western Japan, and ultimately throughout the nation.

In L-INSIGHT, we will work to develop and enhance the skill sets as well as to foster and expand mindsets of L-INSIGHT Fellows crucial to the development of research capabilities that form the foundation of competitiveness and excellence.

For example, we will provide opportunities for Fellows to interact with researchers from overseas partner institutes and business enterprises to encourage the initiation of joint research. To allow Fellows to make the most of these opportunities, the program will support the development and enhancement of skill sets such as academic writing skills, abilities to communicate results, management skills, leadership qualities, and the ability to acquire external funding. In addition, we will aid the fostering and expansion of mindsets such as a co-creation mentality, future-focused thinking, challenging spirit, and internationality.

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#### **Global Insight Spheres and Components**

"Global Insight" comprises mindsets and skill sets applied in three spheres critical for leading next-generation researchers. Mindsets and skill sets are used across L-INSIGHT as tools. They come in three types: self, interpersonal, and system (global/society).

#### **Three Spheres**

## Producing New Values Sphere 1 Value Creation

Creating new values, elucidating mechanisms, and acquiring new knowledge as a researcher.

#### **Nourishing Nascent Values**

# Sphere Internal and External Coordination

Accommodation and resolution during conflicts that arise when developing values, applying elucidated mechanisms, and spreading acquired knowledge.

#### **Spreading Values in Society and the World**

#### Sphere 3 Social Innovation

Applying, spreading, and enhancing the fruits of research in society.

#### Mindsets and Skill Sets: Three Types

#### **SELF**

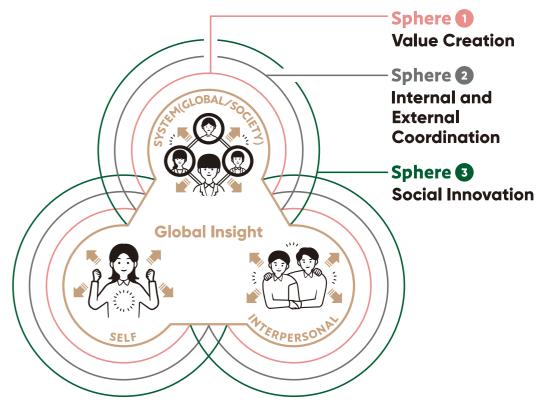
The mindsets and skill sets to foster/re-energize one's mind and cultivate/strengthen one's skills.

#### **INTERPERSONAL**

Makes an effort in improving interpersonal skills for one-on-one situation and in small groups.

#### **SYSTEM**

Tries to demonstrate readiness, spirit, scientific expertise and research performance that are self-obtained so as to implement them effectively as a system in a larger community or complicated society.



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# Minato Nagahiro President, Kyoto University

At a time when the structures of societies and industry around the world are undergoing major changes, the promotion of science, technology, and innovation is essential for Japan's sustainable

development as a producer of science and technology. Faced with a rapidly declining birthrate and aging population, it has become vital for Japan's research universities to continue cultivating outstanding researchers who will become the nation's future science and technology leaders.

Against this backdrop, in 2019, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) launched the Program for the Strategic Cultivation of Global Researchers. The program aims to support the strategic development of outstanding researchers at universities by developing programs and organizational systems that will foster human capital who can play an active role as world-class researchers.

With funding from MEXT's Building of Consortia for the Development of Human Resources in Science and Technology Program, Kyoto University has already established the Keihanshin Consortium for Fostering the Next Generation of Global Leaders in Research (K-CONNEX), which strategically secures and fosters the next generation of outstanding early-career researchers. Based on those achievements and experiences, in the 2019 academic year, the university submitted a proposal to MEXT for the Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT). The program was selected to receive funding, and over the next ten years it will vigorously develop, demonstrate, and diffuse human resource development programs for early-career researchers in collaboration with various partner institutions, including domestic and overseas education/research institutions and companies.

As has been pointed out by the government for some time, the declining number of early-career instructors and researchers at universities is a matter of great concern with regards to maintaining and strengthening the research capacity of Japanese universities in the future. Kyoto University takes this issue very seriously, and has adopted diverse measures, such as prioritizing the employment of early-career faculty members. It is also of particular importance to seek ways of enhancing the research environment for early-career instructors and researchers at universities. This will require not only the improvement of physical research facilities, but also the establishing and supporting environments that enable researchers to develop their skills as independently-functioning principal investigators (Pls).

In cooperation with MEXT, the Japan Science and Technology Agency (JST), and other relevant institutions, L-INSIGHT will enable Kyoto University to contribute to the evolution and expansion of researcher development programs in Japan, and to fostering the next generation of outstanding ECRs.

#### **Norihiro Tokitoh**

**Executive Vice-President, Kyoto University** 

Circumstances for early-career researchers (ECRs) have become increasingly severe in recent years. Even with universities implementing their own early-career researcher development programs, it is difficult for ECRs to develop their careers



due to decreased basic funding, unstable employment, and increased non-research duties. In this context, I feel that Kyoto University's Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT) is much needed. The program fosters early-career researchers with highly developed international capabilities and industry-academia collaboration skills, while helping them to develop their individual qualities. It is funded by the Ministry of Education, Culture, Sports, Science and Technology (MEXT)'s Program for the Strategic Cultivation of Global Researchers, which aims to foster human capital for science and technology.

To nurture the next generation of researchers and genuine leaders in Japan, initiatives such as this program, which provides a network and platform that can be easily accessed by highly-motivated ECRs with world-class capabilities, and which promotes active exchange and mutual understanding, are increasingly essential. There can be no doubt that the early establishment of personal, trans-disciplinary networks among the same generation of outstanding researchers in Japan and abroad will broaden their perspectives and serve as a foundation for their future activities in their respective fields of specialization.

I anticipate, that with the continued support of MEXT, the Japan Science and Technology Agency (JST), and other relevant institutions, L-INSIGHT will make a significant contribution to the development of young researchers in Japan.

#### **Akihiko Akamatsu**

Unit Leader / Program Manager, Kyoto University

The Strategic Development Hub for Early Career Researchers was established within the Center for Enhancing Next-Generation Research. It manages the Program for the Development of Next-generation Leading Scientists with



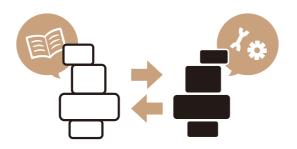
Global Insight (L-INSIGHT), and is composed of academic staff who develop and implement a variety of sub programs, university research administrators (URAs), and others. With the aim of transforming early career researchers into next-generation world-class scientists, L-INSIGHT emphasizes the importance of cultivating global insight to open new paths to the future. This principle is represented by the program's name: L-INSIGHT, which means "acquiring insight" in Japanese. The aims of L-INSIGHT overlap with those of The Keihanshin Consortium for Fostering the Next Generation of Global Leaders in Research (K-CONNEX), of which Kyoto University is a leading member. As L follows K in the alphabet, the naming of L-INSIGHT is indicative of a progression in our efforts to develop, operate, and promote even more advanced programs. The mission of L-INSIGHT is to greatly accelerate the development of early career researchers as the next-generation of leading scientists, while providing them with experience of international and industrial-academic collaboration. By providing rich opportunities for growth experiences across disciplinary, geographic, and industrial-academic boundaries, L-INSIGHT provides early career researchers with the time and space needed to acquire the skill sets and mindsets essential to attaining their personal goals. In order to effectively and strategically boost the development of early career researchers, the program design is based not only on the advice of industry, government, and academic experts, but also prioritizes input from the early career researchers themselves. 09

# SEVEN FEATURES

#### **L-INSIGHT Features**

L-INSIGHT aims to develop, validate, and spread programs to train next-generation leading scientists with Global Insight who can spearhead new paths to the future.

We will look for motivated and talented ECRs (L-INSIGHT Fellows) who aspire to become internationally competitive principal investigators (Pls). We welcome such individuals who take pride in their role as next-generation scientists and produce research achievements that demonstrate exceptional creativity and advanced expertise.



# Interplay between core fundamentals and practical applications

The L-INSIGHT program will be designed to enable mutual interplay between core fundamentals and practical applications during the Core and Practical Stages in order to support the acquisition and enhancement of Global Insight by L-INSIGHT Fellows.

Even after Fellows advance from the Core Program stage to the Practical Program stage, the program will retain a degree of flexibility that allows additional training for those who wish to reinforce their understanding of the competencies.



# Semi-customized program approach

L-INSIGHT does not require Fellows to undergo all of the training programs.

Instead, we adopt a semi-customized program approach in which each Fellow will strategically select components from the suite of available programs based on his/her individual targets for Global Insight competencies and self-evaluations.



# Evaluations facilitated by mentors' support

Each L-INSIGHT Fellow will be assigned a Kyoto University Professor Emeritus/Emerita with close expertise as a Mentor.

Each Mentor will support the assigned Fellow in the self-assessment of his/her goal attainment with consideration to the required skill set and mindset.



# Co-creation of the program through dialogue

L-INSIGHT will be developed and improved by incorporating the Fellows perspectives and advice from internal and external experts.

For example, the establishment of the Global Insight competencies will actively incorporate the opinions of the ECRs and experts from Kyoto University and beyond. In this way, the programs will be co-created through dialogue.



## Flexible cooperation with international institutes

L-INSIGHT is working in collaboration with Kyoto University's overseas centers\* and overseas partner institutes to provide Fellows opportunities to interact with other ECRs and distinguished researchers based in other countries.

This will facilitate the initiation of joint research and provide opportunities for Fellows to gain experience as international conference conveners.

\* North America (Washington DC, US), Europe (Heidelberg, Germany), and ASEAN (Bangkok, Thailand)



# 6 Application of industry's practical capabilities

L-INSIGHT places a strong emphasis on directly incorporating advice from industrial perspectives.

The program will provide numerous opportunities for planning joint research between Fellows and corporate researchers, thereby building and expanding a network that connects ECRs in industry and academia.



# 7 Financial support that encourages active participation

To encourage "autonomous participation by financial support", we provide "Program Activation Support" for each L-INSIGHT Fellow who actively participates in our core and practical programs. The support includes travel expenses to attend the programs and publication charges to disseminate the results of one's research work.

IO

Osaka University **Kobe University** 

SHIN.
SHINE Institutions
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Mitsui Chemicals, Inc.

Kirin Holdings Company,

ResearchUniversity

Partial implementation of the program via collaborations among the three major universities of the Kyoto-Osaka-Kobe region, and spread of the generalized program **Participation of ECRs** in the sub-programs

Exchange between young researchers and industry through joint off-site events, workshops, and short-term dispatch

**ENHANCING** COLLABORATION WITH **EXTERNAL ORGANIZATIONOS** 

**Backup by overseas centers** (ASEAN, Europe, North America)

**Utilization of knowledge** of industry-academia collaboration

(Open Innovation Institute (OI Institute), Kyoto University Original, KYOTO-iCAP)

**Exchanges** 

between ECRs and local researchers

Implementation of the selected program in an international environment

Joint research-oriented exchanges utilizing Kyoto University's extensive network of international collaboration partners

providing opportunities to conduct world-class research

Educational Institutes

Okinawa Institute of Science and Technology **Graduate University** (OIST)

University of Melbourne (UoM)

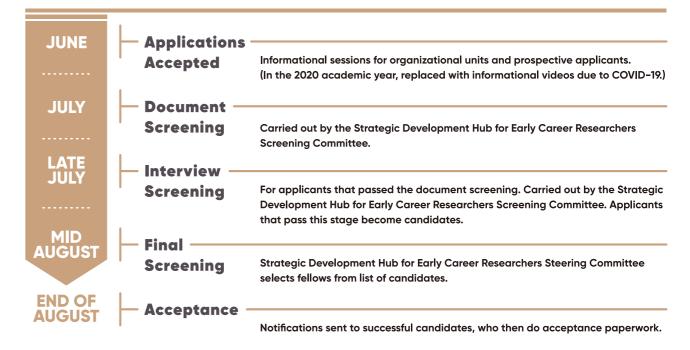
Outseas Institutes
On-sir (Heidelberg, Kyoto, Karlsruhe. Tohoku (in Sendai),

> **Strategic Partnerships** and more

Göttingen, Osaka)

### L-INSIGHT Fellows **APPLICATION AND ACCEPTANCE PROCESS**

L-INSIGHT's screening committee fairly and impartially screens applicants from both academic perspectives and a holistic perspective. The latter includes personal assessments, namely, whether applicants have the qualities of next-generation leaders.



The above schedule is approximate and subject to change. For details, please refer to L-INSIGHT's homepage: https://www.l-insight.kyoto-u.ac.jp/en/

#### **ORGANIZATIONAL FRAMEWORK**

#### **Curriculum Advising Mentor**

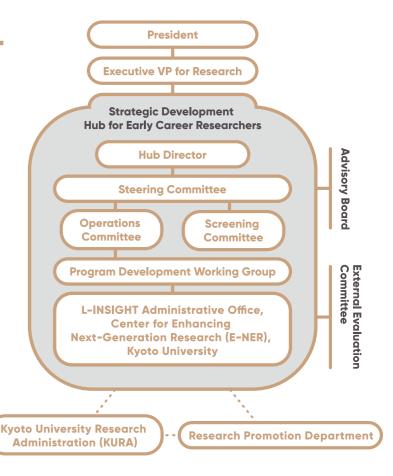
E-NER faculty also function as Curriculum Advising Mentors, and help fellows strategically choose programs based on their performance objectives for global insight competencies.

#### **Professor Emeritus/Emerita** Mentor

With professor emeritus/emerita mentors, fellows discuss their progress towards their global insight competencies (approx. 2x/year). Fellows can draw from these discussions during self-evaluations and when reworking objectives.

#### **Advisory Board**

Experts from Japan and abroad periodically offer advice regarding L-INSIGHT operations.



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# L-INSIGHT FELLOVS



#### **The 1st Cohort**

Arai Yasuyuki
Isobe Masanori
Okamura Ryosuke
Katsura Yukako
Gomi Ryota
Takahashi Yusuke
Tanaka Tomohiro
Nakano Genta
Numata Keiji
Fujii Toshihiro

#### The 2nd Cohort

Inoue Kosuke
Iwakami Satoshi
Shiraishi Kosuke
Hiratsuka Toru
Fujii Yuri I.
Hongo Shun
Yamamoto Akihisa

#### The 3rd Cohort

lima Mami Eguchi Kana Sowa Keisei Fujimoto Kanon Yamada Shintaro Yoshimitsu Nana

#### L-INSIGHT The 1st Cohort (2020)

#### Arai Yasuyuki

Kyoto University Hospital Kyoto University Hospital / Assistant Professor Field of Research: Hematology



Graduate of the Medical Science Department in Kyoto University's Faculty of Medicine (2006). After clinical training at Kitano Hospital (Tazuke Kofukai Medical Research Institute) and Kurashiki Central Hospital, graduated from the doctoral course of Kyoto University's Graduate School of Medicine (hematology, oncology). Subsequently engaged in immunology research for three years as a postdoctoral fellow at the National Institutes of Health (USA). After returning to Japan and working as a clinical fellow at Kyoto University Hospital's Hematology and Oncology Department, in 2018 became an assistant professor at the hospital's Departments of Transfusion Medicine and Cell Therapy (today, Center for Research and Application of Cellular Therapy, Department of Clinical Laboratory). Works on the development and application of cell therapy, including hematopoietic stem cell transplantation.

#### Katsura Yukako

Kyoto University Center for Evolutionary Origins of Human Behavior (EHUB) / Assistant Professor Field of Research: Evolutionary Genetics



Graduate of the five-year doctoral course of the Department of Evolutionary Studies of Biosystems in School of Advanced Sciences at the Graduate University for Advanced Studies (SOKENDAI). Katsura's dissertation was on the evolution of mammalian sex chromosomes. Worked as JSPS overseas research fellowship postdoctoral researcher at UC Berkeley, Pennsylvania State University. After serving as an assistant professor in Nihon University School of Medicine, assumed current position in 2019. Specializes in phylogenetics, genome analysis and other areas in evolutionary genetics.

#### Isobe Masanori

Kyoto University Hospital / Assistant Professor Field of Research: Psychiatry



Graduate of the Medical Science Department in Kyoto University's Faculty of Medicine. After clinical training, became the psychiatrist in charge of child and adolescent outpatient services, Ph.D. (Medicine; Kvoto University). After acquiring doctoral degree, engaged in clinical research on ADHD and addictive disorders as a specially appointed researcher in Behavioral and Clinical Neuroscience Institute and Department of Psychiatry at the University of Cambridge. Upon returning to Japan, became a program-specific assistant professor at Kyoto University Hospital's Department of Psychiatry and was involved in launching the Center for Child and Adolescent Psychiatry. Isobe does clinical work and research on childhood/adolescence and eating disorders. Assumed current position in November 2019.

#### **Gomi Ryota**

Kyoto University Graduate School of Engineering / Assistant Professor Field of Research: Microbial genomics/Environmental engineering



In September 2016, graduated from the Department of Environmental Engineering's doctoral course in Kyoto University's Graduate School of Engineering. Subsequently worked as an assistant professor in the Environmental Systems Engineering Environmental Risk Analysis Laboratory (Department of Environmental Engineering). Carried out research on genomic analysis of Klebsiella pneumoniae (bacteria that live in river water) at the University of Melbourne from August to December 2018 and at Monash University from January to August 2019. Current research topic is genome analysis of drug-resistant Enterobacterales.

#### **Okamura Ryosuke**

Kyoto University Hospital / Assistant Professor Field of Research: Surgical Oncology



Nara Medical University Faculty of Medicine graduate (2006). Initial clinical training at Nara Medical University Hospital. After working at Hyogo Prefectural Amagasaki Hospital (today, Hyogo Prefectural Amagasaki General Medical Center) as a general surgeon from 2008 to 2013, studied clinical research at Kyoto University's Graduate School of Medicine (Department of Surgery). Starting in 2017, for three years carried out research on personalized cancer therapy

that uses molecular profiling at the University of California San Diego Moores Cancer Center. Assumed current position in April 2020. While working as a clinical surgeon, also researches cancer treatments. Ph.D. (Medicine; Kyoto University, 2018).

#### Takahashi Yusuke

Kyoto University Graduate School of Education / Associate Professor Field of Research Educational psychology/Developmental psychology/Behavioral genetics



Ph.D. (Department of Multi-Disciplinary Sciences, Graduate School of Arts and Sciences, The University of Tokyo). After fixed-term posts at Kyoto University (Center for the Promotion of Excellence in Higher Education, Collaborative Graduate Program in Design, and The Hakubi Center for Advanced Research), joined current position in April 2020. Specializes in educational psychology, development psychology, and behavioral genetics. Engages in research that elucidates developmental aspects and underlying mechanisms of individual differences in human psychological characteristics and psychiatric symptoms, as well as that seeks a deeper understanding the complex interactions between genes and environments therein.

#### **Tanaka Tomohiro**

Kyoto University Graduate School of Engineering / Assistant Professor Field of Research: Civil Engineering/Hydrology



Graduate of the master's and doctoral courses of the Department of Civil and Earth Resources Engineering in Kyoto University's Graduate School of Engineering. JSPS DC2 research fellow (April 2016), JSPS PD research fellow (October 2016). Assumed current post in March 2017. Research includes numerical modelling of flood-inundation during heavy rainfall and its quantitative flood risk assessment, as well as, recently, nation-scale impact assessment of climate change on extreme floods across Japan and economic model-based assessment of climate change adaptation measures. Received awards include Japan Society of Hydrology and Water Resources Best Paper Award (2014), Japan Society of Civil Engineers Best Paper Award (2020), Japan Society of Civil Engineers Hydrology Young Author Excellent Paper Award (2020).

#### Numata Keiji

Kyoto University Graduate School of Engineering / Professor Field of Research: Polymer Science/Chemical Biology/Biological Chemistry/Plant Biotechnology/Organellar Engineering



Graduate of the Department of Polymer Chemistry in Tokyo Institute of Technology (2003). Doctor of Engineering from Tokyo Institute of Technology (2007). JSPS Overseas Research Fellow at Tufts University (USA, 2008), Team Leader (PI) of RIKEN (2012), Cabinet Office ImPACT project leader (2014), JST ERATO research director (2016). Assumed the current post in 2020. His research topic is the synthesis and degradation of biopolymers, especially, structural proteins. Major awards include the American Chemical Society's Macro Letters/

Biomacromolecules/Macromolecules Young Investigator Award (2020) and the MEXT Minister Early Career Scientist Award (2018).

#### Nakano Genta

Disaster Prevention Research Institute (DPRI), Kyoto University/ Assistant Professor Field of Research: Disaster psychology • Education



Ph.D. (Informatics; Department of Social Informatics, Graduate School of Informatics, Kyoto University). Specializes in action research on disaster risk reduction education and community-based disaster risk management. Primary fields are Kochi Prefecture in Japan, Nepal, and Mexico. For approximately three years, worked on community-based disaster risk management and disaster risk reduction policy in El Salvador as a JICA project formulation advisor as well as a Japan Overseas Cooperation Volunteers. Assumed current post in December 2019. Aiming to have community members take an active role in disaster risk reduction, engages in practice-based research in collaboration with local schools and governments.

#### Fujii Toshihiro\*

The HAKUBI Center for Advanced Research / Program-Specific Assistant Professor

Field of Research: Astrophysics/ Astroparticle Physics

Enrollment period : 2020.9 - 2022.3



Received Ph.D. in Science from Graduate School of Science, Osaka City University. Astrophysicist. Hakubi Researcher, After receiving Ph.D., worked at Kavli Institute for Cosmological Physics (KICP), University of Chicago and Institute for Cosmic Ray Research (ICRR), University of Tokyo, appointed current position in December 2018. Specializes in the observation of ultra-high-energy cosmic rays. Engages in joint research with the Telescope Array Experiment and Pierre Auger Observatory, being the highest sensitivities to ultra-high-energy cosmic rays in the both northern and southern hemispheres. In the next-generation cosmic ray observatory dubbed FAST Project, leads new cosmic-ray telescope development as principal investigator. Received awards include JSPS Research Fellowships for Young Scientists (DC2 and PD), JSPS Postdoctoral Fellowship for Research Abroad, Young Scientist Award of the Physical Society of Japan (2018) and Cosmic Ray Physics Award of Cosmic ray Researchers Congress (2018)

\*Became an alumni due to a change of affiliation to another institution.(2022.4 $\sim$ )

#### **Inoue Kosuke**

Kyoto University Graduate School of Medicine / Assistant Professor Field of Research : Epidemiology, Causal Inference, Endocrinology



Kosuke Inoue obtained his MD from the University of Tokyo (2013) and worked as a physician at National Center for Global Health and Medicine (2013-2015) and Yokohama Rosai Hospital (2015-2017). He then moved to U.S. and obtained PhD (Epidemiology) from University of California, Los Angeles (2021). He was appointed Assistant Professor in 2021 in the Graduate School of Medicine, Kyoto University. He aims to develop strong methodologic skills in epidemiology/statistics (particularly, causal inference and machine learning), and leverage them to build evidence for future clinical management and policy interventions related to chronic diseases. Received awards include NIH/NIDDK F99/K00 Award (2020), Toffler Award in Epidemiology, UCLA (2 graduate students were awarded for the most innovative research initiatives) (2020), Summer Research Fellowship Award: The Endocrine Society (2019), Outstanding Abstract Award: ENDO 2020 (2020), Amazon Web Service/Computation Medicine Award (Co-Investigator) (2019), Travel Grant: Society for Epidemiologic Research 52st Annual Meeting, Minneapolis, United States (2019), Honjo International Scholarship Award (sponsored by ITO-EN) (2019), Burroughs Wellcome Fund Fellowship Award(2018), Fellowship Award in Epidemiology, UCLA (2018), Heiwa Nakajima Foundation Scholarship Award (2017), Travel Grant, International Society of Hypertension 2016 Satellite symposium, Renin-angiotensin-aldosterone system, Tokyo, Japan (2016).

#### Iwakami Satoshi

Kyoto University Graduate
School of Agriculture /
Assistant Professor
Field of Research: Weed Science



Satoshi Iwakami obtained his PhD from Kyoto University (2013). After working as a postdoctoral fellow at Bayer CropScience (2014-2015) and as an assistant professor at University of Tsukuba (2015-2016), he was appointed his current position (2016). His main research interest is the mechanisms of herbicide resistance in weeds and their diversity.

#### Shiraishi Kosuke

Kyoto University Graduate School of Agriculture / Assistant Professor Field of Research: Applied microbiology and molecular cell biology



Kosuke Shiraishi is an assistant professor at Kyoto University. Since he took the position in January 2021, he has been driving studies on physiology of microorganisms living on the plant leaf surface, as well as mRNA dynamics and autophagy, using the methylotrophic yeasts as the research model. Before this role, he worked for the Food and Agriculture Organizations of the United Nations for four years and the government of Japan for one year, where he contributed to achieving food security and enhanced his understanding on microbiology and biotechnology from the political viewpoints. He completed his bachelor course in 2012 and received a Ph.D. in 2017 from Kvoto University. During the doctoral course, he was selected as a research fellow of the Japan Society for Promotion of Science. His research honors include the best poster presentation award at the International Conference on Yeast in 2016. Recognized by Kyoto University for his effort in the establishment of and activities with Yumonkai, the Alumni of the Graduate School of Advanced Integrated Human Survivability Studies, he was appointed as a Kyoto University support ambassador in 2020.

#### Hiratsuka Toru\*

Kyoto University Graduate School of Biostudies / Program-Specific Assistant Professor Field of Research: Life Science Enrollment period: 2021.9 - 2021.12



Dr. Toru Hiratsuka obtained his MD degree from Osaka University (2011) and obtained his PdD degree from Kyoto University (2015). From 2015 to 2021 Dr. Hiratsuka undertook postdoctoral training at Centre for Stem Cells and Regenerative Medicine in King's College London, United Kingdom. Dr. Hiratsuka reported a novel intercellular ERK signal propagation pattern (SPREAD) in mouse epidermis and dynamic transitions of temporal ERK activity patterns during human keratinocyte proliferation and differentiation. Since April 2021 Dr. Hiratsuka is engaged in pancreatic cancer research by live imaging of pancreatic organoids and in vivo tumor models as Program-Specific Assistant Professor in the Graduate School of Biostudies. Kyoto University.

Received awards include Yamamura award (Osaka University, 2011), Student of the year (Japan Student Services Organization, 2010).
\*Became an alumni due to a change of affiliation to another institution.(2022.1~)

#### **Hongo Shun**

Center for African Area Studies, Kyoto University / Program-Specific Researcher Field of Research: Conservation science, Wildlife management, Primate ecology



Shun Hongo earned his PhD from Kyoto University in 2016 and worked as a researcher at Kvoto University Primate Research Institute and as an expert for Japan International Cooperation Agency (JICA). He now joins a bilateral collaborative project between Cameroon and Japan. To establish a sustainable management system of wild mammals—an essential source of food and income for rural people in the Congo Basin—he seeks to integrate scientific methods such as camera trapping and practical knowledge of indigenous and local people. Received awards include Best paper award, Primate Society of Japan (2015), Poster presentation award, The Mammal Society of Japan (2017).

#### Fujii Yuri I.

Kyoto University Graduate School of Human and Environmental Studies / Assistant Professor Field of Research: Planetary Science, Astrophysics, Astronomy



Yuri Fujii is an assistant professor at The Graduate School of Human and Environmental Studies in Kyoto University. She completed her PhD at Nagoya University, Japan in 2015 and moved to ELSI at Tokyo Tech as a postdoc before joining to the theoretical astrophysics group at the Niels Bohr Institute in Denmark. She continued her research as designated assistant professor of YLC program at Institute for Advanced Research of Nagoya University. She was appointed to her current position in January 2021. Her research interest is dynamics of protoplanetary and circumplanetary disks that are the birthplaces of planets and moons.

Received awards include Dean's Prize for best Master's thesis, Nagoya University (2012), Oral Presentation award, East Asian Young Astronomers Meeting (2011).

#### Yamamoto Akihisa

Kyoto University Institute for Advanced Study (KUIAS) / Program-Specific Assistant Professor Field of Research:soft matter physics, physics of life



Akihisa Yamamoto started working as a researcher in the Institute for Integrated Cell-Material Sciences (WPI-iCeMS) in Kyoto University in 2013. After receiving a doctoral degree from Kyoto University in 2015, he continued his work at iCeMS until 2017 and the department of medicine in Kyoto University until 2018 as a postdoc. He was then appointed Assistant Professor in 2018 in the Center for Integrative Medicine and Physics, Institute for Advanced Study of Kyoto University. His research topics are soft matter physics and physics of living systems. His research aims to characterize the structure and physical properties of the soft interface in a quantitative manner with the real-space methods and reciprocal-space methods, and to shed light on the mechanics and dynamics of cell and tissue that play a critical role in medical science. Received awards include Baden-Wurttemberg Stipendium Scholarship (2012).

#### lima Mami

Institute for Advancement of Clinical and Translational Science (iACT), Kyoto University Hospital Department of Diagnostic Imaging and Nuclear Medicine, Kyoto University Graduate School of Medicine / Assistant Professor Field of Research: Diagnostic Radiology



Graduate of the Department of Medical Science in Kyoto University's Faculty of Medicine. After clinical training, while a graduate student at Kyoto University, lima studied in France at NeuroSpin, an ultra-high field MRI research center, and then obtained her Ph.D. degree. After working at Kyoto University's Hakubi Center and the university hospital's Diagnostic Imaging and Nuclear Medicine Department, she assumed her current position in April 2019. By extracting and utilizing new information from images using various imaging techniques, including non-invasive diffusion-weighted MRI, lima is developing new and safe cancer diagnostic imaging methods that are less physically taxing.

#### Sowa Keisei

Kyoto University Graduate School of Agriculture / Division of Applied Life Sciences / Assistant Professor Field of Research : Bioelectrochemistry



Keisei Sowa is an assistant professor at Kyoto University. Since he took the position in January 2021, he aims to understand the essence of key functions of living organisms (respiration, metabolisms, and photosynthesis) from the viewpoint of bioelectrochemistry and to contribute to society through biomimetic technology. In particular, he is working on the social implementation of third-generation biosensors and CO2 utilization technology with direct electron transfer-type enzymes. Before this role, he worked for an electronics manufacturer and chemical manufacturer. He completed his bachelor course in 2012 and received a Ph.D. in 2017 from Kyoto University. During the doctoral course, he was selected as a research fellow of the Japan Society for Promotion of Science. His research was accepted for publication in Chem. Commun. as Outside Front Cover, in 2022.

#### **Eguchi Kana**

Kyoto University Graduate School of Medicine / Department of Real World Data R&D / Program-Specific Assistant Professor Field of Research: Human-computer interaction (HCI), Medical engineering (ME), Medical informatics (MI)



Kana EGUCHI is a program-specific assistant professor at the Department of Real World Data R&D, Graduate School of Medicine, Kyoto University. She received her B.E. degree from the Kyoto Institute of Technology, Kyoto, Japan, in 2010, and her M.S. and Ph.D. degrees in informatics from Kyoto University, Kyoto, Japan, in 2012 and 2020, respectively. She was appointed to her current position in July 2022. Before starting her academic research career, she had approximately 10 years of work experience as a company researcher at Nippon Telegraph and Telephone (NTT) Corporation, Tokyo, Japan. Her current research interests include biosignal processing, wearable/ubiquitous computing, medical engineering, medical informatics, and human computer interaction. Her awards include Telecom System Technology Award for Student (Honorable Mention) from the Telecommunications Advancement Foundation, in 2019.

#### **Fujimoto Kanon**

Kyoto University Graduate School of Letters / Assistant Professor Field of Research: Experimental Psychology



Graduate of the Department of Psychology in the Division of Behavioral Sciences at Kyoto University's Graduate School of Letters. D. Litt. Fujimoto began a JSPS research fellowship (DC2) in April 2020, obtained her doctoral degree in March 2022, and then assumed her current position in April of the same year. She specializes in experimental psychology, researching the characteristics of humans' visual spatial perception in virtual reality environments.

#### Yamada Shintaro

Kyoto University Graduate School of Medicine / Department of Radiation Genetics / Assistant Professor Field of Research: DNA recombination and repair



From Nara Prefecture. In 2008, graduated from the Department of Biophysics and Biochemistry in the University of Tokyo's Faculty of Science. Holds a doctoral degree from the Department of Biological Sciences in the University of Tokyo's Graduate School of Science (2013). After working as a postdoctoral researcher in the Department of Multidisciplinary Sciences at the University of Tokyo's Graduate School of Arts and Sciences, he was a postdoctoral researcher at Memorial Sloan Kettering Cancer Center in New York, U.S.A. From 2018 to 2020, Yamada had a cross-appointment at Kyoto University's Graduate School of Medicine. He has been in his current position since 2018. He studies the molecular mechanisms of DNA recombination and repair, which can help us understand sexual reproduction, cancer, aging, and genetic engineering.

#### Yoshimitsu Nana

**Resource Engineering** 

induced earthquakes.

Kyoto University Graduate School of Engineering / Department of Civil and Earth Resources Engineering / Assistant Professor Field of Research: Seismology, Earth



Doctor of Science, received by Ritsumeikan University. The thesis topic was applicability of rock fracture experiments to seismology. Worked as a postdoctoral research fellow at The University of Tokyo, Earthquake Research Institute and Stanford University. After engaged as a project assistant professor at Earthquake Research Institute, appointed at the current position. Studying earthquake generation process through laboratory experiments and



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