

Announcement of The Keio Medical Science Prize 2026

Keio University, Japan's oldest private university located in Tokyo, annually awards The Keio Medical Science Prize to recognize researchers who have made an outstanding contribution to the fields of medicine or the life sciences. It is the only prize of its kind awarded by a Japanese university, and 13 laureates of this prize have later won the Nobel Prize. The 31st Keio Medical Science Prize is awarded to F. Ulrich Hartl, D.med., from Max Planck Institute of Biochemistry, and Seishi Ogawa, M.D., Ph.D., from Graduate School of Medicine, Kyoto University.

1. Laureates

F. Ulrich Hartl, D.med.



Professor and
Director of Cellular
Biochemistry,
Max Planck Institute of
Biochemistry

◆ Awarded research theme:
“Elucidation of the Mechanisms of Molecular
Chaperone-Mediated Protein Folding and Beyond”

Seishi Ogawa, M.D., Ph.D.



Professor, Department of
Pathology and Tumor Biology,
Graduate School of Medicine,
Kyoto University

Principal Investigator, Institute
for the Advanced Study of
Human Biology (WPI-ASHBi),
Kyoto University

Specially Invited Professor,
Department of Innovative
Medicine, Faculty of Medicine,
Kindai University

◆ Awarded research theme:
“Uncovering the Fundamental Principles of Cancer
Development and Evolution through Advanced
Genomic Analyses”

2. Award Events

The award ceremony and commemorative lectures will be held on November 26, 2026, at the Keio University School of Medicine, located on Keio University's Shinanomachi Campus.

Date & Time : Thursday, November 26, 2026, 14:00-17:30

Venue : Kitasato Memorial Hall, Keio University School of Medicine, Shinanomachi Campus, Tokyo, Japan

Public Transit : 2-minute walk from Shinanomachi Station (JR Sobu Line), 5-minute walk from Kokuritsu-kyogijo Station
(Subway Oedo Line)

Admission : On-site only; by invitation only

Language : English

For more information, please visit the Keio Medical Science Prize website:

<https://www.ms-fund.keio.ac.jp/en/prize/>





The Keio Medical Science Prize 2026 Laureate

“Elucidation of the Mechanisms of Molecular Chaperone-Mediated Protein Folding and Beyond”

F. Ulrich Hartl, D.med.

Professor and Director of Cellular Biochemistry, Max Planck Institute of Biochemistry, Germany

Protein folding is essential for life and was long believed to occur spontaneously, solely based on the information encoded in a protein's amino acid sequence. However, how newly synthesized proteins achieve correct folding within the intracellular environment remained a fundamental question. Dr. F. Ulrich Hartl demonstrated that molecular chaperones, including heat shock proteins (Hsp), actively promote protein folding and prevent protein aggregation in cells, often in an ATP-dependent mechanism. This landmark discovery established the new paradigm that protein folding *in vivo* requires the assistance of molecular chaperones, fundamentally transforming the field of molecular cell biology. Dr. Hartl further elucidated the structures and mechanisms of chaperone complexes and revealed the cooperative chaperone network that maintains intracellular protein homeostasis. He also demonstrated that disruption of protein folding leads to toxic protein aggregation, a central mechanism underlying neurodegenerative diseases, thereby providing a foundation for novel therapeutic strategies. His pioneering work has profoundly influenced both basic biomedical science and clinical medicine and is highly deserving of the Keio Medical Science Prize.

Education

1982	M.D., University of Heidelberg
1985	Dr. med., University of Heidelberg, Laboratory of Prof. H. Schimassek, Institute of Biochemistry Title: <i>The Regulation of Rat Liver Peroxisomal Metabolism by Thyroid Hormones.</i>
1990	Dr. med. habil, University of Munich, Institute of Physiological Chemistry, Chair of Prof. W. Neupert Title: <i>Topogenesis of Mitochondrial Proteins: Mechanisms of Sorting and Assembly of Proteins into the Mitochondrial Subcompartments</i>
1985-86	Postdoctoral Fellow in the laboratory of Prof. W. Neupert at the Institute of Physiological Chemistry, University of Munich
1989-90	Postdoctoral Fellow in the laboratory of Prof. W. Wickner, University of California at Los Angeles, Fellow of the Deutsche Forschungsgemeinschaft (German Research Council)

Professional Appointments

1987-1990	Group leader, Institute of Physiological Chemistry, University of Munich
1991-1992	Associate Member, Program in Cellular Biochemistry & Biophysics, Sloan Kettering Institute, New York, Associate Professor of Cell Biology and Genetics, Cornell University, Graduate School of Medical Sciences, New York
1993-1997	Member (with tenure), Program in Cellular Biochemistry and Biophysics, Sloan-Kettering Institute, New York, Professor of Cell Biology and Genetics, Cornell University, Graduate School of Medical Sciences, New York
1994-1997	Associate Investigator, Howard Hughes Medical Institute
1997	Director and Scientific Member, Max Planck Institute of Biochemistry, Martinsried, Germany
1997	Honorary Professor, Medical Faculty and Faculty of Chemistry and Pharmacy, University of Munich
2000-2003	Managing Board of Directors, Max Planck Institute of Biochemistry
2002	Executive Director, Max Planck Institute of Biochemistry (on rotation)
2009-2011	Managing Board of Directors, Max Planck Institute of Biochemistry
2010	Executive Director, Max Planck Institute of Biochemistry (on rotation)
2016-2018	Managing Board of Directors, Max Planck Institute of Biochemistry
2017	Executive Director, Max Planck Institute of Biochemistry (on rotation)
2022-2024	Managing Board of Directors, Max Planck Institute of Biochemistry

2023

Executive Director, Max Planck Institute of Biochemistry (on rotation)

Major Honors/Awards

2004	Gairdner Foundation International Award, Canada
2010	Dr H.P. Heineken Prize for Biochemistry and Biophysics, Netherlands
2011	Lasker Award for Basic Medical Research, USA
2012	Shaw Prize in Life Science and Medicine, Hong-Kong
2020	Breakthrough Prize in Lifesciences, USA

Comment from F. Ulrich Hartl, D.med.

I would like to express my sincere gratitude to the prize committee for selecting me as one of the recipients of the 2026 Keio Medical Science Prize. I am deeply honored to receive this prestigious recognition for my contributions to understanding the mechanisms of chaperone-assisted protein folding and the critical role of molecular chaperones in neurodegenerative diseases associated with protein aggregation. I would like to acknowledge especially the contributions of the many talented students and postdocs I had the pleasure of working with. What began as purely curiosity-driven research ultimately yielded unexpected insights of medical relevance, hopefully leading to new therapies.



The Keio Medical Science Prize 2026 Laureate

“Uncovering the Fundamental Principles of Cancer Development and Evolution through Advanced Genomic Analyses”

Seishi Ogawa, M.D., Ph.D.

Professor, Department of Pathology and Tumor Biology, Graduate School of Medicine, Kyoto University
Principal Investigator, Institute for the Advanced Study of Human Biology (WPI-ASHBi), Kyoto University
Specially Invited Professor, Department of Innovative Medicine, Faculty of Medicine, Kindai University, Japan

Dr. Seishi Ogawa has delineated the genetic alterations and oncogenic mechanisms underlying diverse cancers using advanced genomic technologies. His early studies identified alterations in key cancer-associated genes, including *CBL* in myeloid neoplasms, *A20* in malignant lymphoma, and *ALK* in neuroblastoma, through SNP array-based copy-number analysis. He subsequently discovered recurrent mutations in RNA-splicing factors and cohesin-complex genes in myelodysplastic syndromes using next-generation sequencing. His research has further encompassed acute myeloid leukemia, adult T-cell leukemia/lymphoma, glioma, renal cell carcinoma, clonal hematopoiesis, and aplastic anemia, defining the genomic alterations and epigenetic states in these diseases and elucidating their clinical significance. More recently, he has characterized somatic mutations in normal tissues and reconstructed clonal evolution from normal cells toward cancer in the esophagus, breast, and inflammatory bowel disease-associated colon. Collectively, his work has transformed cancer research, from understanding the principles of cancer development and evolution to advancing disease classification, prognostic prediction, and therapeutic development.

Education

1983 –1988	Undergraduate/MD program, School of Medicine, University of Tokyo
1989 –1992	MD, PhD program, University of Tokyo

Professional Appointments

1988 –1989	Postgraduate clinical training in internal medicine
1993 –1995	Clinical Associate, University of Tokyo
1996 –1996	Research fellow of Japan Society for the Promotion of Science
1997 –2002	Assistant Professor of Medicine, University of Tokyo
2002 - 2006	Associate Professor, Department of Regeneration Medicine for Hematopoiesis, Graduate School of Medicine, University of Tokyo
2006 - 2008	Associate Professor, The 21st Century COE Program, Graduate School of Medicine, University of Tokyo
2008 - 2013	Associate Professor, Cancer Genomics Project, University of Tokyo
2015 - 2022	Visiting Professor, Karolinska Institute, Sweden

2013 - Present	Professor, Department of Pathology and Tumor Biology, Kyoto University
2025 - Present	Specially Invited Professor, Department of Innovative Medicine, Faculty of Medicine, Kindai University

Major Honors/Awards

2016	Uehara Prize
2017	Science and Technology Award, Minister of Education and Science (Research Division)
2017	Takeda Medical Award
2017	Takamine Memorial Daiichi Sankyo Prize
2018	Medal of Honor with Purple Ribbon

Comment from Seishi Ogawa, M.D., Ph.D.

I am deeply honored to receive the Keio Medical Science Prize. I sincerely thank my mentors, collaborators, laboratory members, and especially the patients and their families who have made this research possible. From the beginning of my career, I have been driven by a simple question: why does cancer arise? In pursuing this question, we found that somatic mosaicism accumulates widely in normal tissues with aging. Although this was not something we had anticipated at the outset, our work has gradually expanded beyond cancer to provide new insights into aging and a variety of human diseases. Encouraged by this honor, I hope to continue advancing this research and contribute, even in a small way, to the progress of biomedical science and medicine.



The Keio Medical Science Prize

1. Background

In the fall of 1994, Dr. Mitsunada Sakaguchi, a 1940 alumnus of the School of Medicine, donated five billion yen to Keio University with the expressed desire that it be used to commend outstanding researchers, to encourage medical research and its creative progress at Keio through grants, and to promote worldwide medical advances. In keeping with Dr. Sakaguchi's commitment, Keio launched The Keio University Medical Science Fund on April 1, 1995. Dr. Sakaguchi made an additional donation of two billion yen in July 1999, bringing the fund to a total of seven billion yen.

2. Initiatives

- The Keio Medical Science Prize
- Grants for International Activities in Medicine and the Life Sciences
- Keio Medical Science Rising Star Award
- Research Grants for Medicine and the Life Sciences
- Sakaguchi Laboratory

3. Objective

The Keio Medical Science Prize gives recognition to the outstanding and creative achievements of researchers in the fields of medicine and the life sciences, in particular those contributing to scientific developments in medicine. It aims to promote worldwide advances in medicine and the life sciences, encourage the expansion of researcher networks throughout the world, and contribute to the well-being of humankind.

4. Nomination and Selection

The Keio Medical Science Prize is an international award, and each year academics and researchers from around the world are invited to nominate a candidate. Laureates are then selected through a rigorous review process by about seventeen Japanese academics from both within and outside of Keio University. Laureates receive a certificate of merit, medal, and a monetary award of 10 million yen.

Selection Committee 2026:

Toshiro Sato	Chairperson of the Committee Professor, Department of Biochemistry, Keio University School of Medicine
Shizuo Akira	Director, Center for Advanced Modalities and Drug Delivery System, The University of Osaka
Kenjiro Hanaoka	Professor, Department of Pharmaceutical Analytical Chemistry for Drug Discovery, Faculty of Pharmacy, Keio University
Kaori Hayashi	Professor, Department of Internal Medicine (Nephrology, Endocrinology and Metabolism), Keio

Masaki Ieda	University School of Medicine Professor, Department of Internal Medicine (Cardiology), Keio University School of Medicine
Takanori Kanai	Professor, Department of Internal Medicine (Gastroenterology and Hepatology), Keio University School of Medicine
Keisuke Kataoka	Professor, Department of Internal Medicine (Hematology), Keio University School of Medicine
Yoshihiro Kawaoka	Project Professor, The University of Tokyo Pandemic Preparedness Infection and Advanced Research Center Center Director, International Virus Infectious Disease Research Center, National Center for Global Health and Medicine
Kazunori Nakajima	Professor, Department of Anatomy, Keio University School of Medicine
Osamu Nureki	Professor, Graduate School of Science, The University of Tokyo
Hiroshi Makino	Professor, Department of Physiology, Keio University School of Medicine
Kazutoshi Mori	Professor, Faculty of Pharmacy, Meijo University
Noriko Osumi	Executive Director, Japan Society for the Promotion of Science Professor Emeritus/Visiting Professor, Tohoku University
Mitinori Saitou	Director, Kyoto University Institute for the Advanced Study of Human Biology (WPI-ASHBi) Professor, Kyoto University Institute for Advanced Study
Yoshiko Takahashi	Program-Specific Professor, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University
Masashi Yanagisawa	Director, International Institute for Integrative Sleep Medicine (WPI-IIIS), University of Tsukuba
Motoko Yanagita	Professor, Department of Nephrology, Graduate School of Medicine, Kyoto University

5. Nobel Prize Winners from the Keio Medical Science Prize Laureates

1996	Stanley B. Prusiner (The Nobel Prize in Physiology or Medicine 1997) “Discovery of Prions and Prion Diseases”
1999	Elizabeth Helen Blackburn (The Nobel Prize in Physiology or Medicine 2009) “Telomeres and Telomerase”
2002	Barry J. Marshall (The Nobel Prize in Physiology or Medicine 2005) “Isolation and cultivation of Helicobacter pylori - pioneering work in diagnosis and treatment -”
2004	Roger Y. Tsien (The Nobel Prize in Chemistry 2008) “Visualization and Control of Molecules within Living Cells”
2006	Thomas A. Steitz (The Nobel Prize in Chemistry 2009) “Structural Basis of Large Ribosomal Subunit Function and Drug Development”
2008	Shimon Sakaguchi (The Nobel Prize in Physiology or Medicine 2025) “For the Discovery of Regulatory T cells and Their Roles in Immunological Diseases”
2010	Jules A. Hoffmann (The Nobel Prize in Physiology or Medicine 2011) “Discovery of Insect-innate Immune System and Toll Receptors”
2013	Victor R. Ambros (The Nobel Prize in Physiology or Medicine 2024) “Discovery of microRNAs as a new class of gene regulators”
2015	Yoshinori Ohsumi (The Nobel Prize in Physiology or Medicine 2016) “Discoveries of Mechanisms for Autophagy”
2016	Tasuku Honjo (The Nobel Prize in Physiology or Medicine 2018) “Identification of PD-1 and Establishment of Cancer Immunotherapy Principle by PD-1 Blockade”
2016	Svante Pääbo (The Nobel Prize in Physiology or Medicine 2022) “Molecular Elucidation of Human Origin”
2022	Katalin Karikó (The Nobel Prize in Physiology or Medicine 2023) “Discovery of Specific RNA Modification Leading to mRNA Vaccine Development”
2024	Demis Hassabis (The Nobel Prize in Chemistry 2024) “Innovation in Biomedical Research through Brain-inspired Artificial Intelligence”

Contact:

Office of the Keio University Medical Science Fund
TEL : +81-3-5363-3609 FAX : +81-3-5363-3215
E-mail : k-msf@adst.keio.ac.jp
<https://www.ms-fund.keio.ac.jp/en/prize/>

Publisher:

Office of General Affairs, Keio University School of Medicine
TEL : +81-3-5363-3611 FAX : +81-3-5363-3612
E-mail : med-koho@adst.keio.ac.jp
<https://www.keio.ac.jp/en/med/>