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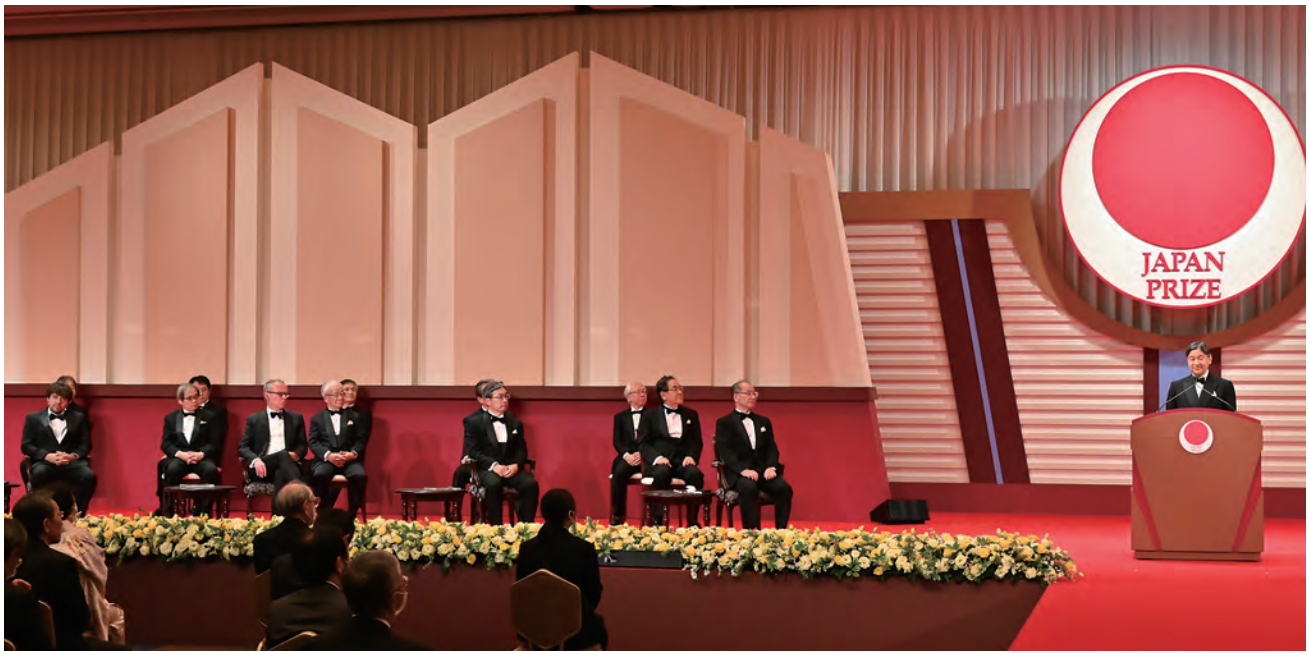
Japan Prize News
No. 68 May. 2023

JAPAN PRIZE

2023 Japan Prize Presentation Ceremony

Their Majesties the Emperor and Empress in attendance at this year's function



On Thursday, April 13, 2023, the 39th Japan Prize Presentation Ceremony took place in the presence of Their Majesties the Emperor and Empress at the Imperial Hotel in Chiyoda-ku, Tokyo. The Japan Prize is an international award presented to individuals whose original and outstanding achievements in science and technology have served to promote peace and prosperity for humankind.

At the ceremony, the 2023 prize laureates were presented with a certificate of merit, prize medal, and cash prize, which was increased to 100 million yen per field in 2020 from the previous 50 million yen. This year's laureates were Professor Masataka Nakazawa and Mr. Kazuo Hagimoto in the field of Electronics, Information, and Communication and Professors Gero Miesenböck and Karl Deisseroth in the field of Life Sciences.

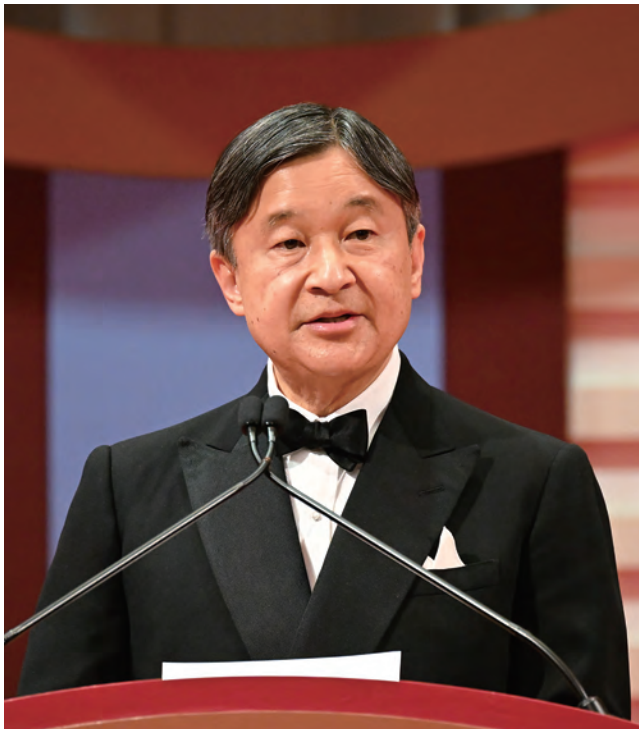
Each year, the Japan Prize Foundation receives nominations from around 15,500 prominent scientists and researchers worldwide, with winners being chosen through a rigorous year-long selection process. Of the fields eligible for the prize in 2023, there were 123 nominations for Electronics, Information, and Communication and 204 for Life Sciences.

JAPAN PRIZE

The establishment of the Japan Prize was motivated by the Japanese government's desire to create an internationally recognized award that would contribute to scientific and technological development around the world. With the support of numerous donations, the Japan Prize Foundation received endorsement from the Cabinet Office in 1983.

The Japan Prize is awarded to scientists and engineers from around the world who have made creative and dramatic achievements that help progress their fields and contribute significantly to realizing peace and prosperity for all humanity. Researchers in all fields of science and technology are eligible for the award, with two fields selected each year in consideration of current trends in scientific and technological development. In principle, one individual in each field is recognized with the award, and receives a certificate, a medal, and a monetary prize. Each Award Ceremony is attended by the current Emperor and Empress, heads of the three branches of government and other related officials, and representatives from various other elements of society.

Address by His Majesty the Emperor



It brings me great pleasure to be here at the 2023 Japan Prize Presentation Ceremony together with distinguished participants and guests from different countries and regions of the world. On the occasion of this esteemed ceremony, I would like to extend my heartfelt congratulations to each of the distinguished laureates: Professor Masataka Nakazawa and Mr. Kazuo Hagimoto in the field of Electronics, Information, and Communication and Professor Gero Miesenböck and Professor Karl Deisseroth in the field of Life Sciences.

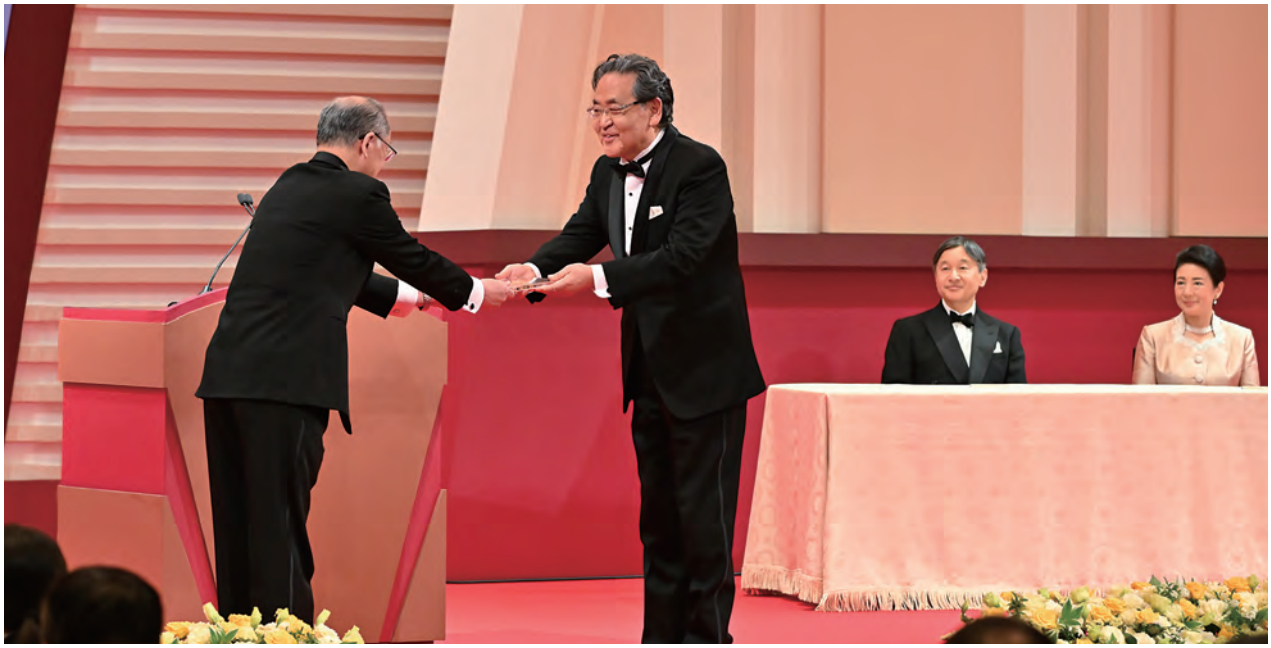
The Japan Prize was established based on private donations, in accordance with the Japanese government's vision of contributing to the development of science and technology throughout the world. This Prize is awarded to scientists and engineers from across the globe who have made innovative and ground-breaking achievements that have made a significant contribution to the advancement of science and technology, and recognised for their remarkable efforts to contribute to the peace and prosperity of humankind.

I would like to convey my deepest regards to each of these outstanding researchers whose studies have contributed immensely to the growth of various scientific and technological fields and to the improved well-being of humanity.

Today, nations across the world, including our country, are facing many social, economic, and environmental challenges, and science and technology are playing increasingly crucial roles. As we have worked together to overcome the COVID-19 pandemic during these past few years, I believe that by gathering the wisdom of diverse fields and joining forces worldwide, we can build a promising future.

I would like to conclude by expressing my sincere hope that the Japan Prize will further aid the advancement of science and technology to bring happiness to people and also contribute to the peace and prosperity of humankind. Thank you.

Presentation Ceremony

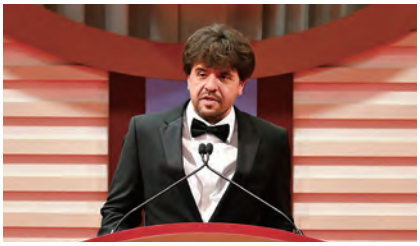


The 2023 Japan Prize Presentation Ceremony was held at the Imperial Hotel, Tokyo in the presence of Their Majesties the Emperor and Empress. The magnificent occasion was celebrated by approximately 140 attendees, including distinguished guests, such as Mr. Hidehisa Otsuji, President of the House of Councillors; Mr. Saburo Tokura, Chief Justice of the Supreme Court; and Ms. Keiko Nagaoka, Minister of Education, Culture, Sports, Science and Technology. At the presentation ceremony, the laureates were presented with a certificate of merit and prize medal by Chairman Yoshio Yazaki of the Japan Prize Foundation. The laureates received warm applause from the audience as they held up the prize medals and expressed their joy in their acceptance speeches.

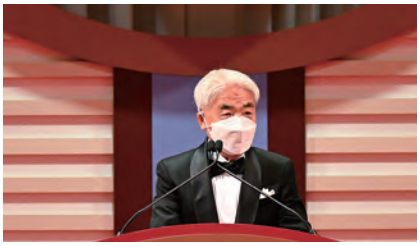
Prof. Masataka Nakazawa

Mr. Kazuo Hagimoto

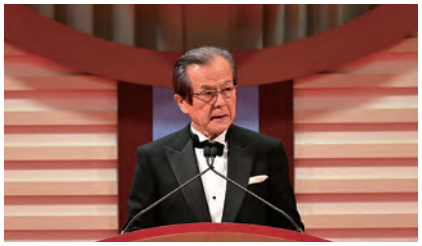
Prof. Gero Miesenböck



Prof. Karl Deisseroth



Congratulatory Speech
Mr. Hidehisa Otsuji



Opening Remarks
Dr. Hiroshi Komiyama

Their Majesties the Emperor and Empress applauding the recipients.

Commemorative concert

Field：Electronics, Information, and Communication

Distinguished contributions to global long-distance, high-capacity optical fiber network through the development of semiconductor laser pumped optical amplifier

Prof. Masataka Nakazawa

Born: 17 September 1952　Based in: JAPAN

Distinguished Professor/Specially Appointed Professor
Tohoku University

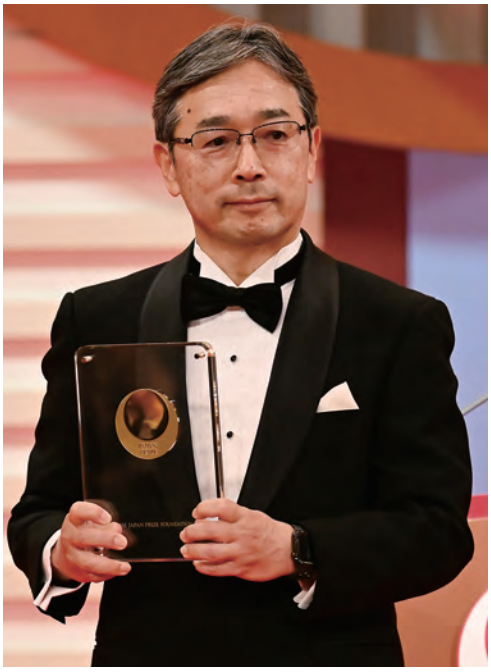
Message from the Laureate

I am honored to receive the Japan Prize with Mr. Hagimoto in the presence of Their Majesties the Emperor and Empress, heads of the legislative and judicial branches, and the Minister of Education, Culture, Sports, Science and Technology.

The EDFA device we developed is a completely new optical repeater capable of amplifying the original signals attenuated within the optical fiber without having to convert them. It is not boastful to say that this device was responsible for bringing about the global ICT network.

It is extremely gratifying for me that this device is now in use not only for optical communications but in a wide range of fields, including fiber lasers, optical measurement, and signal processing research. I would like to express my gratitude to my supportive family as well as to my young research colleagues, companies with which we partner, and students. Thank you.

Masataka Nakazawa



Mr. Kazuo Hagimoto

Born: 8 January 1955　Based in: JAPAN

Principal Researcher
National Institute of Information and Communications Technology

Message from the Laureate

It is a great honor and privilege to be receiving the prestigious Japan Prize in the presence of Their Majesties the Emperor and Empress and other distinguished guests. I would like to express my heartfelt gratitude to the Japan Prize Foundation, Selection Committee, and everyone who has worked with and supported us over many years.

Kazuo Hagimoto

Field：Life Sciences

The development of methods that use genetically addressable light-sensitive membrane proteins to unravel neural circuit function

Prof. Gero Miesenböck

Born: 15 July 1965　Based in: Austria

Waynflete Professor of Physiology
Centre for Neural Circuits and Behaviour, University of Oxford

Message from the Laureate

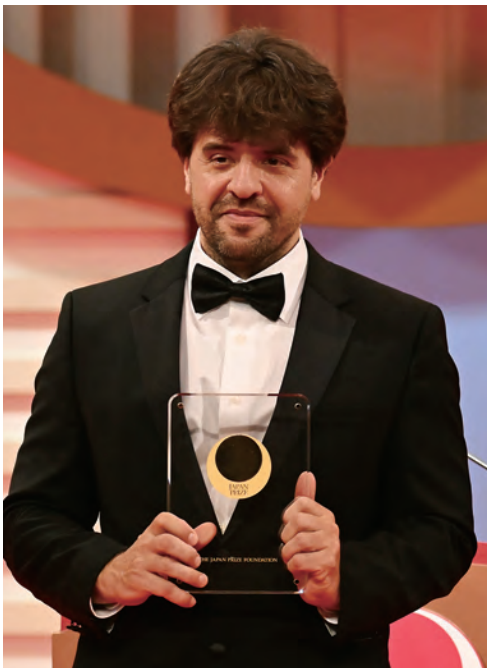
Your Majesties, Excellences, Members of the Japan Prize Foundation and the Selection Committees, Distinguished Guests,

The mathematician G.H. Hardy described the pleasure of discovery as a "cerebral chill". Karl and I have certainly felt this chill when our efforts to remote-control the brain succeeded, and perhaps even more so when, thanks to our invention, we discovered some of the neural processes that underpin our lives.

Today's festive occasion evokes a different kind of emotion: not cerebral chills but heartfelt delight—at the great honor you have bestowed upon us, at the wonderful hospitality you have shown us, and at the message you have sent with the award of this prize that fundamental research benefits mankind.

Thank you.

Gero Miesenböck



Prof. Karl Deisseroth

Born: 18 November 1971　Based in: USA

Professor, Departments of Bioengineering and Psychiatry
and Howard Hughes Medical Institute Stanford University

Message from the Laureate

Your Majesties the Emperor and Empress, my fellow laureate, friends and family, and distinguished guests: I am tremendously honored to receive the 2023 Japan Prize, for the discovery of optogenetics. The story of optogenetics shown that ideas and influences from unexpected directions are not only important, but also essential, for the progress of medicine and science– exemplified by the first steps I took in this direction nearly twenty years ago at Stanford, when I did the strange experiment of putting genes from green algae into mammalian neurons.

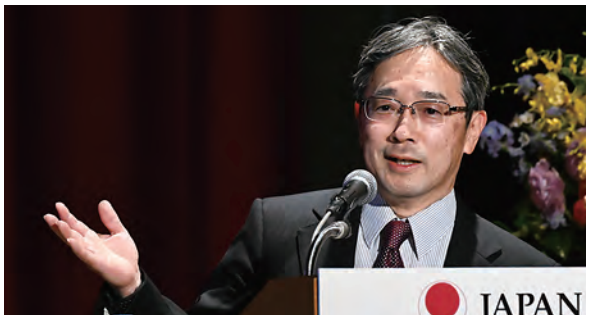
I am profoundly grateful to my patients in the clinic, who have inspired me with their courage; my students and postdoctoral fellows over the years, who have continuously amazed me with their brilliance, and my wonderful family who have supported and inspired me over the years. A special note to my two brave girls Emma and Sophie who have been very courageous in their travel here. And I think this is why we are all here, at some level: the courage to advance freedom and truth was never more important than it is now. Thank you.

Karl Deisseroth

Japan Prize Week

April 12

Commemorative Lectures



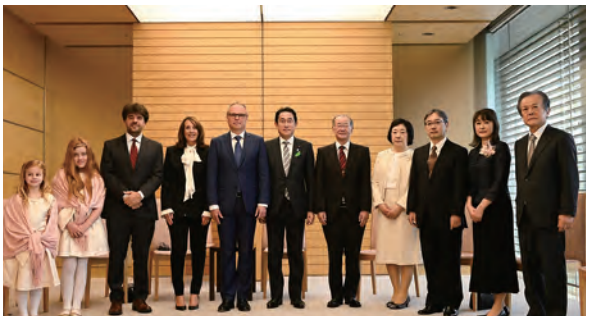
Courtesy Call on Austria Embassy

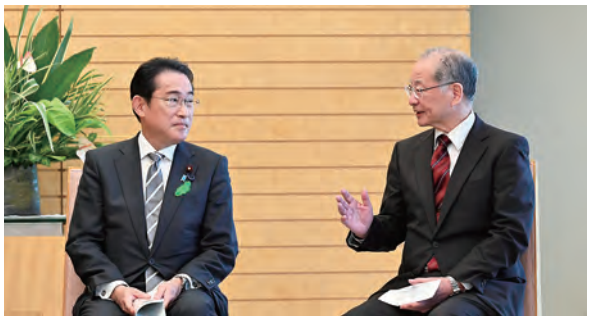
April 13

Presentation Ceremony

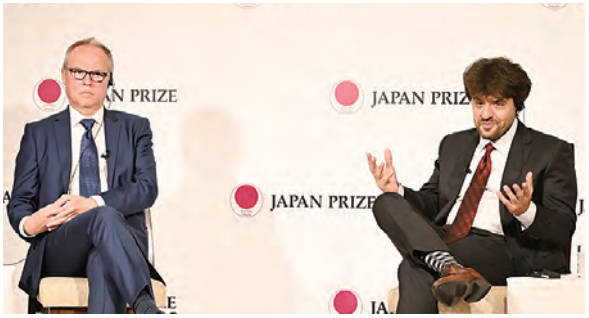
April 14

Courtesy Call on the Prime Minister





Media Interview



Invitation from the Japan Prize

Projects of the Foundation

For the further development of science and technology...

In addition to selecting and awarding the Japan Prize, the Japan Prize Foundation is engaged in projects designed to contribute to the development of science, technology, and society, including the offering of research grants for the training of young scientists, and our "Easy-to-understand Science and Technology Seminars" aimed at the children who will lead the coming generations.

JAPAN PRIZE

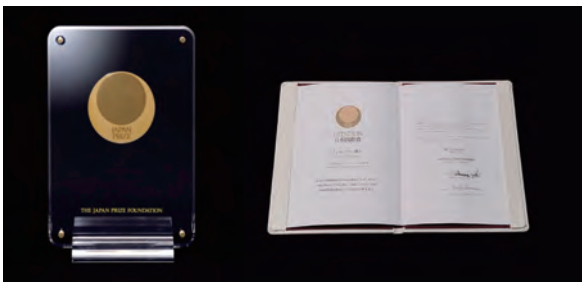
The creation of the Japan Prize was motivated by the Japanese government's desire to "contribute to the development of science and technology worldwide by establishing a prestigious international award". Supported by numerous private donations, the Japan Prize was established in 1983 with a cabinet endorsement.

This award honors scientists and researchers worldwide who are recognized for having contributed signifi cantly to the peace and prosperity of humankind through their original and outstanding achievements that have greatly advanced the progress of science and technology.

The eligible fields of this award cover all fields of science and technology. Every year, two fields for the award presentation are chosen by considering the developments in science and technology.

As a general rule, one award is given for each field and each laureate receives a certificate of merit, a prize medal and a cash prize.

The Presentation Ceremony is held annually in the presence of Their Majesties the Emperor and Empress, and is also attended by the Speaker of the House of Representatives, the President of the House of Councillors, the Chief Justice of the Supreme Court, various ministers, as well as eminent figures from various circles.



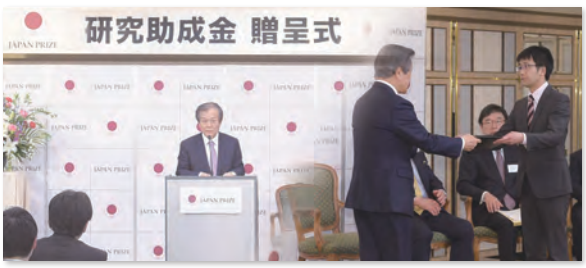
Research Grants

The "Japan Prize Heisei Memorial Research Grant Program" is named after Their Majesties the Emperor Emeritus and Empress Emerita, who have been interested in the research activities of young scientists and have encouraged them for many years.

The Foundation provides research grants to scientists mainly under 45 years of age. Every year, the Foundation selects four to eight scientists who undertake knowledge-integrated research that contribute to solving social issues, and gives five to ten million yen.

The Foundation encourages international collaboration of scientists beyond their expertise.

(An applicant must belong to a research organization in Japan.)



"Easy-to-Understand Science and Technology Seminars"

The Foundation holds a series of public and student seminars on advanced technologies commonly used in everyday life by inviting experts, who will explain state-of-the-art technologies in plain terms. The program began in March 1989 and has since executed more than 300 seminars across Japan by the end of 2019.