The Hitachi Global Foundation Nurturing people, connecting to the future





The Hitachi Global Foundation publishes news letters featuring its many activities. We offer various types of news about our Foundation, ranging from activity reports on symposiums, seminars, awards ceremonies, and other events to our latest topics. Please take a look to find out more.

Human Development

Girls in Science Support Project

Talk Session & Workshop

A pioneer talk and workshop titled "Women in Energy - the Need and the Opportunity" was held on Saturday, July 20, 2024. 50 female junior and senior high school students, along with 17 parents, attended the event at the DIGITAL MULTI-PURPOSE HALL in the Tokyo Institute of Technology* (Meguro Ward, Tokyo).



Pioneer Talk

"What is Zero-Carbon Energy? - Our Proper Understanding Shapes the Future"

Chikako Ishizuka, Assistant Professor Laboratory for Zero-Carbon Energy, Tokyo Institute of Technology*

Zero-Carbon Energy sources include renewable, nuclear, and biomass. While a small number of researchers are engaged in the nuclear energy sector, many work for electric power companies, manufacturers, and other related organizations. Assistant Professor Ishizuka talked about the roles in the energy sector and the academic backgrounds of those contributing to this field.



Lecture

"Women in Energy - the Need and the Opportunity"

William D. Magwood, IV, Director-General, OECD Nuclear Energy Agency (NEA)

Nuclear power is used in familiar fields such as medical care and agriculture. With energy demand on the rise, renewable and nuclear energy sources are expected to play key roles as part of green transformation technologies. Director-General Magwood explained the challenges Japan faces and the contributions of women working in the energy sector, as well as the activities and goals of NEA's 'Joshikai' (female's workshop) for Future Scientists.

Workshop

Theme Let's Think about the Future of Energy!

Chikako Ishizuka, Assistant Professor Laboratory for Zero-Carbon Energy, Tokyo Institute of Technology*

The students were divided into three groups of thermal, nuclear, and renewable energy to discuss the theme.

Facilitated by three graduate students of the Tokyo Institute of Technology*, each group presented its most recommended sources of energy for the future.



* current Institute of Science Tokyo

The Kurata Grants FY2024 (56th) Kurata Grants

The Kurata Grants is a research fund program for the advancement of science and technology in Japan proposed by and established with a donation from the second President of Hitachi, Ltd., the late Chikara Kurata, in 1967.

We offer grants to next-generation researchers working to address global social issues in the natural sciences and engineering as well as the humanities and social sciences that underlie highly technological society. As of 2023, grants totaling approximately 2.6 billion yen have been awarded to 1,613 researchers

Applications for FY2024 were accepted from July 1 through September 16, and are currently being thoroughly reviewed by the selection committee.

Recipients will be selected in January 2025 (plan), followed by an announcement on The Hitachi Global Foundation website and a presentation ceremony in March of the same year.

The Kurata Grants **Research Report** Vol. 53 Web Edition

The Hitachi Global Foundation annually publishes the Kurata Grants Research Report to share the outcomes of research funded by the grants.

The 53rd edition, released this year features the research outcomes of projects selected in FY2021 and 2022.

Please visit the site to find out more.

The Kurata Grants Research Report Vol. 53 (issued in FY2024)

https://www.hitachi-zaidan.org/ activities/kurata/reseach-report53.html

- * Available in Japanese only.
- * The printed version is scheduled for publication in January 2025.

The Hitachi Global Foundation Science and Technology Seminars The 20th Hitachi Global Foundation Science and **Technology Seminar (online)**

The Hitachi Global Foundation Science and Technology Seminars is an annual program offering seminars with the aim to have people of all ages experience the excitement of science and understand the importance of seeing things through the eyes of science.

Online seminar is planned for this year, inviting Specially Appointed Professor Kazuhiro Kondo of The Jikei University School of Medicine as a guest speaker. Professor Kondo is a leading researcher specializing in fatigue, and has been recognized for his numerous achievements, such as elucidating the mechanism of physiological fatigue, discovering the SITH-1 gene associated with depression, and investigating the cause of long COVID.

Program Outline

The 20th Hitachi Global Foundation Science and Technology Seminar What is Fatique?

Viruses know everything about it

Date & Time: 13:30-15:00 on Saturday, November 30, 2024 Format: Online (Zoom webinar)

* A recorded version of the seminar will be available for future access. * Available in Japanese only.

Lecturer



Kazuhiro Kondo, Specially Appointed Professor Department of Fatigue Science, The Jikei University School of Medicine

Click on the link below to apply (free of charge)

https://www.hitachi-zaidan.org/activities/ seminar/topics/2410001.html



Depression and aftereffect of COVID-19 Caused by Fatigue and Viruses?! Why do people get tired? - the world's leading-edge studies on fatigue

Fatigue is an important phenomenon that causes many illnesses, but its mechanism has not been well understood. To identify the real culprit of extreme tiredness, Professor Kondo and his team conducted a detailed investigation of the human herpesvirus 6 (HHV-6), a virus latent in the human body and closely associated with fatigue. HHV-6 is developed in saliva in response to fatigue, and through the research discovered a trigger substance called elF2a is responsible for fatigue. In addition, the studies revealed that the SITH-1 protein derived from HHV-6 triggers depression. The findings also showed that a protein similar to SITH-1 is carried by COVID-19 and plays a part in causing aftereffect of COVID symptoms.

In this seminar, Professor Kondo will share the excitement of research on fatigue and viruses by explaining the mechanism of fatigue based on viruses.

The Hitachi Global Foundation Asia Innovation Award Selection of FY2024 Recipients

Overview

The Hitachi Global Foundation Asia Innovation Award was launched in FY2020 to promote innovations in science and technology that can contribute to solving social issues and realizing a sustainable society in the ASEAN region. This award recognizes individuals and groups that have notably served the public interest through their outstanding research and development projects that envision an ideal society and incorporate plans to implement innovative science and technology with the aim of contributing to the United Nations Sustainable Development Goals (SDGs).

The Foundation is currently in the process of selecting the FY2024 award recipients. The awardees will be announced on our website at the end of January 2025.



Application Details

Two goals and several relevant targets among the 17 SDGs and 169 targets are selected each year. Applicants are invited to present their research and development achievements contributing to our selected goals and targets. They are also asked to submit implementation plans to envision through their achievements an ideal society in their countries or the ASEAN region.

Application Details for FY2024

Applicants for the FY2024 awards were invited to present their research and development outcomes contributing to the targets related to SDG 12: Responsible Consumption and Production and SDG 13: Climate Action, in light of the FY2023 achievement status of the SDGs in ASEAN countries and global situations.



Eligibility

Eligible countries, universities, and research institutes from the ten ASEAN countries are selected each year based on the Foundation's application requirements. Applicants must be researchers, faculty members, or students belonging to eligible universities and research institutes, and be recommended by their schools or organizations. Both individuals and groups are accepted.

Eligibility for FY2024

Among the ASEAN countries selected were Cambodia, Indonesia, Laos, Myanmar, the Philippines, and Vietnam, where many challenges remain unaddressed to achieve SDGs 12 and 13. In these six countries, 26 major universities and research institutes involved in research fields related to the two SDGs are eligible. For further details, including application documents, selection criteria, schedule, and award contents (number of awards), please refer to the Hitachi Global Foundation Asia Innovation Award page. https://www.hitachi-zaidan.org/global/activities/ award/index.html



Hitachi Future Innovator Program

FY2024 On-site Lessons

The Hitachi Global Foundation provides a project-based learning program for fifth graders to foster the abilities to find and solve problems required of future human resources in science and technology. We collaborate with Hitachi Group companies to offer four on-site lessons at schools.

The FY2024 program is underway at five schools: Uehara Elementary School in Shibuya Ward (Tokyo), Hikarigaoka Elementary School in Kashiwa City (Chiba Prefecture), Saginuma Elementary School in Narashino City (Chiba Prefecture), Nakamachi Elementary School in Hitachi City (Ibaraki Prefecture), and Takada Elementary School in Bungotakada City (Oita Prefecture).

In the first on-site lesson, students formed hypotheses based on the theme, "What is the difference between sinking and not sinking?" and conducted experiments to test their hypotheses.



Realization of an Inclusive Society

E-Journal

The Hitachi Global Foundation Global Society Review Vol. 2

Global Society Review Vol. 2

Currently available in Japanese only



The e-journal "Global Society Review" serves as a platform for experts in academic fields related to inclusion to organically interact and share their expertise with one another, thereby contributing to new academic ideas and perspectives.

The second issue published in June 2024 with the theme "Inclusion from the Perspective of Individuals" features individual stories that include the ideas and



activities of people with different cultural backgrounds, along with messages based on their various experiences. The journal also includes a book review and an analysis report based on objective data.

We hope the latest issue will benefit readers by raising their awareness of what people have been unmindful of and neglected in building an inclusive society in Japan.

The cover story is a special interview with Rune Hoshino, a TV personality and manga artist.

The Hitachi Global Foundation

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https://www.hitachi-zaidan.org/global/index.html

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