



Organization representing  
Japan's scientist communities

# Science Council of Japan



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The Science Council of Japan (SCJ), established in 1949, is a Japanese academy founded under the Act on Science Council of Japan, with the mission of contributing to the peaceful reconstruction of Japan and the welfare of human society as well as to academic progress in partnership with academic circles all over the world. It is established within the Cabinet Office as a "special organization" that carries out its duties independently under the jurisdiction of the Prime Minister.

It consists of scientists across all disciplines, i.e., humanities and social sciences (Section I), life sciences (Section II), and physical sciences and engineering (Section III), and has 210 Council Members and about 2,000 Members.

### Message from the President



The 25th term (October 2020 – September 2022) of SCJ began with the difficult task of responding to the novel coronavirus disease 2019 (COVID-19) pandemic. There are also other pressing issues to be addressed globally for the sake of all humanity including Japanese society. Among others, climate change and marine plastic litter are urgent issues of serious concern, threatening the sustainability of humanity and ecosystems on the earth. In addition, recent technological progress in such fields as information and communication technology (ICT), artificial intelligence (AI), and genome editing are so rapid that we should carefully look ahead to their impacts that might have on our society. Besides, we should not forget the conflicts that are happening in various places around the world.

To tackle these important and complex issues, it is necessary for scientists of all academic disciplines, including humanities, social sciences, and natural sciences, to cooperate with their respective strength. Through their collective wisdom, SCJ, as an academy representing scientists from all academic disciplines in Japan, will collaborate with academies and academic communities around the world to contribute to the resolution of those important issues.

In this era, scientific and academic perspectives have come to play a truly significant role in determining the future direction of countries and human societies. SCJ is willing to make efforts to meet the expectations of the people of Japan.

"To share academic wisdom with everyone" is our wish.

### KAJITA Takaaki, Ph.D.

President of the Science Council of Japan for the 25th Term

#### Profile

Born in Saitama Prefecture in 1959. Prof. KAJITA completed a doctoral program in the Department of Physics at the University of Tokyo's Graduate School of Science in 1986. He holds a doctorate in science. After assuming some positions at the University of Tokyo, such as assistant at the International Center for Elementary Particle Physics and assistant professor and professor at the Institute for Cosmic Ray Research, he was appointed as Director of the Institute for Space Studies in 2008. From October 2020, he was appointed as President of the Science Council of Japan for the 25th term.

In 1998, he presented evidence that neutrinos, which until then had been believed to have no intrinsic mass, have in fact a slight mass and periodically change their physical nature. In 2015, he was awarded the Nobel Prize in Physics (for discovery of neutrino oscillations indicating that neutrinos have mass).

### Key Activities

#### To promote international collaborations as the leading academy of Japan

SCJ, as a representative Japanese academy for the international community, conducts various international activities such as collaboration with academies of various countries and regions and hosting international symposiums, and plays a role as a trusted international partner. It also works on organizing important international congresses to be held in Japan.

#### To express opinions by Japanese scientists towards government and society

SCJ is a bottom-up organization, in that it provides the government and citizens with scientists' expert and reliable opinions from a neutral perspective. It contrasts to the role of "Council for Science, Technology and Innovation," which is a government-led top-down organization that functions as a control tower for Japan's science and technology policy.

#### To encourage a better understanding of science through dialogue with citizens

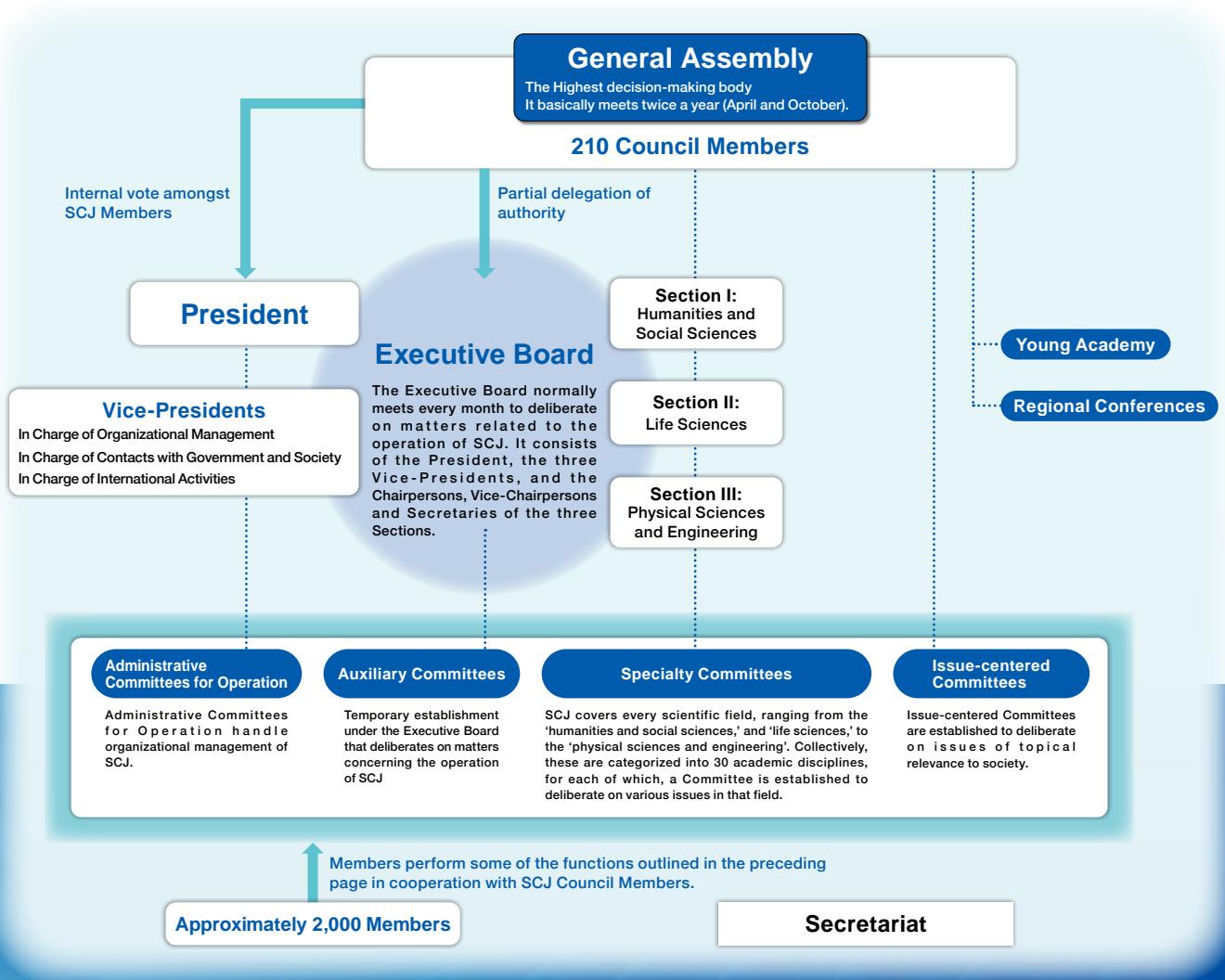
We organize symposiums and science cafes, where we provide citizens with recent topics in science and exchange opinions, earnestly conducting activities to familiarize people with science through dialogue between scientists and society.

#### To enhance scientific activities in academia and society

Among important issues for SCJ is to realize sustainable development of science activities in Japan. SCJ has been conducting a variety of activities to enhance scientific activities in academia and citizen society, in close partnership with academic societies. SCJ would further strengthen its function to address this issue.

# Organization of Science Council of Japan (SCJ)

SCJ consists of 210 Council Members (quota) and approximately 2,000 Members, elected as representatives of scientists nationwide who are engaged in outstanding research or have made great achievements. SCJ conducts activities from a universal perspective and a comprehensive and multifaceted viewpoint, taking advantage of the fact that it is comprised of scientists from a broad-range of professional disciplines including humanities and social sciences, life sciences, and physical sciences and engineering.



## Executive Board Members of SCJ



# Promotion of international collaborations as the leading science academy of Japan

## G-Science Academies / Science 20

G-Science Academies are academic science meeting bodies launched in 2005 for the purpose of enabling science academies from the G7/G8 Summit member countries to make policy recommendations to their respective leaders.

Prior to the G7 Summit every year, the Academies submit scientific policy recommendations on important global issues to national leaders in the form of a joint statement toward the Summit through coordination among academies.

In Japan, the President of Science Council of Japan delivers the statement to the Prime Minister and relevant ministers.

In 2017, Science 20 (S20) was launched with the aim of enabling science academies of G20 member countries to jointly propose scientific policy recommendations to the G20 Summit.

SCJ, which served as the Chair Academy in 2019, compiled

a joint statement on the theme of “Threats to Coastal and Marine Ecosystems, and Conservation of the Ocean Environment - with Special Attention to Climate Change and Marine Plastic Waste,” and the President of SCJ handed over the statement to the Prime Minister in the presence of the Minister of State for Science and Technology Policy.



Science 20 (S20) Japan 2019 Joint Statement Handover Ceremony (March 2019)

## Membership and contribution to international academic organizations

As the Japan's representative organization (national academy), SCJ is a member of leading international academic organizations, including the International Science Council (ISC\*) and the InterAcademy Partnership (IAP).

By dispatching delegates to international conferences held by those international academic organizations, the Science Council of Japan strengthens the partnership with academic societies throughout the world, facilitates communication regarding international academic research, and contributes to academic advancement.

Continuous activities carried out for international academic organizations as a representative national academy have led to the results such as the acquisition of a naming right for the new element 113 (discovered in Japan, and named “Nihonium”), and the approval for registration of the Chiba Section (Chibanian) to the GSSP (Global Boundary Stratotype Section and Point).

\*Founded in July 2018 by the merger of the International Council for Science (ICSU) and the International Social Science Council (ISSC).

### Membership Contribution to International Academic Organization

- International Science Council
- International Astronomical Union
- International Union of Geodesy and Geophysics
- International Union of Pure and Applied Chemistry
- International Union of Pure and Applied Physics
- Union Radio-Scientifique Internationale
- International Union of Biological Sciences
- International Geographical Union
- International Mathematical Union
- Pacific Science Association
- International Union of Crystallography
- International Union of the History and Philosophy of Science and Technology/  
Division of Logic, Methodology and Philosophy of Science and Technology
- International Union of the History and Philosophy of Science and  
Technology/Division of History of Science and Technology
- International Union of Theoretical and Applied Mechanics
- International Union of Physiological Sciences
- International Commission for Optics
- International Union of Biochemistry and Molecular Biology
- Scientific Committee on Antarctic Research
- Committee on Space Research
- Scientific Committee on Oceanic Research
- International Union of Geological Sciences
- International Union for Pure and Applied Biophysics
- Committee on Data for Science and Technology
- International Economic Association
- International Union for Quaternary Research
- International Mineralogical Association
- Scientific Committee on Solar Terrestrial Physics
- International Federation of Automatic Control
- International Union of Nutritional Sciences
- World Federation of Engineering Organizations
- International Economic History Association
- World Climate Research Programme
- Le Comité International des Sciences Historiques
- International Union of Basic and Clinical Pharmacology
- International Federation of Social Science Organizations
- International Cartographic Association
- International Council for Laboratory Animal Science
- Association of Asian Social Science Research Councils
- International Arctic Science Committee
- International Union of Microbiological Societies
- Commission Internationale du Génie Rural
- IAP for Science (former : InterAcademy Panel on International Issues)
- IAP for Policy (former : InterAcademy Council)
- International Union of Soil Sciences
- The Association of Academies and Societies of Sciences in Asia

## Science Council of Asia (SCA)



Science Council of Asia (SCA) was established in 2000 advocated by the Science Council of Japan, with its secretariat located in SCJ, for the purpose of sharing information on the current state of science among Asian countries and regions, promoting cooperation in a wide range of scientific fields in Asia, gaining mutual understanding among Asian scientists and deepening trust.



The 18th SCA Conference in Japan

- Members: 32 organizations across 18 Asian countries and regions
- Secretariat: Science Council of Japan
- Since its establishment in 2000, each member country holds international symposiums, General Assemblies, and Board meetings every year in turn.

## International expansion of Future Earth



Future Earth is a global collaborative research initiative that aims to realize a sustainable global society, promoted by the International Science Council (ISC) and others. Under the vision of “for people to thrive in a sustainable and equitable world,” advocated by the United Nations Conference on Sustainable Development (UNCSD) in 2012 (Rio+20), it is a framework

that aims to create more innovative research by promoting cooperation between the research communities and various stakeholders in society and to connect the world-leading laboratories and experts with an open network. SCJ is a member of the Governing Council and forms a federation of distributed coordination secretariats with Canada, China, Chinese Taipei, France, India, Sweden and the United States and plays an integral part in the international development of Future Earth.

## Holding international conferences and symposiums

### International Conference on Science and Technology for Sustainability

Since 2003, SCJ has held an annual international symposium, "International Conference on Science and Technology for Sustainability" to discuss solutions for global issues and compiled recommendations.



Their Majesties the Emperor and Empress attending the 2019 IEEE International Geoscience and Remote Sensing Symposium held in July 2019.

### Co-hosted international conferences

Of international conferences organized by academic research organizations held in Japan, with a verbal agreement from the Cabinet, SCJ co-hosts important conferences conducive to solving scientific issues to contribute to the development of academic research and promotion of exchange among researchers. Imperial family members are present at some conferences.

## Young Academy of Japan (YAJ)



The Young Academy of Japan (YAJ), which belongs to SCJ, is composed of researchers under the age of 45 who are engaged in cutting-edge research in diverse disciplines ranging from humanities and social sciences to natural sciences. As a unique organization characterized by solid expertise and diverse backgrounds, YAJ conducts a wide range of activities from the standpoint of young researchers who will play a central role in scientific and academic circles in the future.

YAJ's main mission is to propose and implement solutions to various problems that the world and Japan are facing, as well as those surrounding young researchers, through dialogue and collaboration not only with researcher communities but also with the government, industry, media, the general public, and young academies in other countries.

In particular, subcommittees on the following eight issues are organized:

Human resources development for the future; improvement of academia systems and mechanisms; integration among academic disciplines; revitalization of local communities; cooperation and innovation with the private sector; dissemination of information; international activities; and collaboration with the Global Young Academy.

## SDGs in SCJ activities



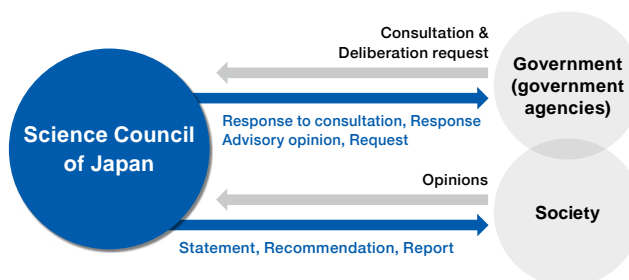
SCJ recognizes the United Nations sustainable development goals (SDGs) as a solution for the social issues in the world, and addresses the science in society and the science for society. In an attempt to address how to achieve the SDGs in the era beyond 2030, we are now discussing about relations between academics and SDGs in committees of all Sections and in the Young Academy, emphasizing the balance of economics, society, and the environment. Through these discussions we should be able to propose new recommendations on this issue in the near future. The recommendations and reports made by SCJ are also presented to show how they are connected in relation to SDGs.

# Expression of opinions by Japanese scientists towards government and society

With professional and credible views as scientists looking into the next generation, our experts give opinions to policy-makers and civil society, which have been reflected in various policies, such as the establishment of an important research institution.

In the 24th term\*, we issued three “responses” to the requests for deliberation from the government (ministries and agencies), 85 “recommendations” from committees etc. in various fields, and 23 “reports”. In addition, we provide the President's comments and the Executive Board's statements in response to the issues at in a timely manner.

\*The 24th Term: Three years from October 2017 to September 2020



## Recent key activities

### [Cross-disciplinary deliberations] Judicious application of genome editing technology to human embryos

There are many issues around us, which should be tackled in collaboration with academic societies in different disciplines, including the global environment, population problems, energy problems and natural disasters. SCJ strives to solve these issues by bringing together the power of experts across vertically structured academic societies. For example, with regard to the application of genome editing technology to human embryos, SCJ held cross-disciplinary deliberations, and submitted three recommendations over the 23rd to 24th terms.

The recommendations have influenced the formulation of national guidelines and the discussions on laws and regulations in Japan and are reflected in discussions on the formulation of reports of the International Summit on Human Genome Editing in which representatives from academies of various countries, including SCJ, participate.

### [Cross-disciplinary deliberations] Toward the realization of gender equality in society and academic circles -- Challenges for 2030

The recommendations set the target period of the Gender Equality policy from 2020 to 2030 and define five priority challenges, including “women's participation in decision-making processes and overcoming unconscious bias” (Recommendation 2).

In addition to the Scientist Committees, sectional committees have been established in all three sections, which generate the outcome of cross-sectoral discussions in all academic disciplines, including the humanities, life sciences, physical sciences and engineering.



### [Medium- to long-term perspective] Medical system and society during and after COVID-19 pandemic

Various organizations and specialists have made urgent recommendations for the Novel Coronavirus (COVID-19) pandemic, which have spread around the world since the beginning of 2020. Under such circumstances, SCJ believed that recommendations from a medium- to long-term perspective would be necessary for the resilience of society, and discussed how the medical system and society should be organized during and after COVID-19 pandemic. In May 2019, before the COVID-19 crisis, SCJ had already stressed the need to strengthen for literacy education on microorganisms and pathogens. In February 2020 just after the outbreak of the COVID-19, we established the “Study Committee on Large-scale Infectious Disease Prevention and Control System,” which mainly consists of scientists from Section II (Life Sciences). We have also published several recommendations and statements with regard to the COVID-19 pandemic. Among these, the one on “Reinforcement of ICT Infrastructure and Promotion of Digital Transformation for Infectious Disease Control and Social Change” made in September 2020 was jointly developed by Section II and Section III, and underwent cross-disciplinary deliberation.

### [Comprehensive viewpoint] Master plan for large-scale academic research projects

Since the 21st term, a “Master Plan for Large-Scale Academic Research Projects” has continuously been formulated by the SCJ as a representative of the scientific community, with the aim of providing some guidance on what large-scale research projects should be implemented in Japan in view of future academic programs as a whole.

\*The master plan has been revised roughly every three years, and the latest Master Plan for Large-Scale Academic Research Projects for the 24th-term (Master Plan 2020) was issued in January 2020.

A master plan, for which no budget is allocated, is formulated from a purely academic viewpoint. However, it is also used for national academic policies, as well as specific measures in relevant ministries and agencies, universities, research institutes, etc. For example, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has prepared a roadmap for large-scale research projects based on the Master Plan for Large-scale Research Projects formulated by the SCJ.

## Activities for the promotion of science in academia and society

### Organizing SCJ forums, symposiums, science cafes etc.

To give back scientific and academic research results to citizens, deepen mutual understanding of science, and exchange opinions with citizens and other stakeholders at large, academic forums and science cafes are organized by SCJ.

In addition, Specialty Committees are active in organizing around 100 symposiums a year to capture various academic issues and exchange opinions with young generations including junior and senior high school students. Talks with media are also actively pursued.



Academic Forum/ The 11th Academic Network Symposium on Disaster Prevention "10 Years Memorial and Beyond the Great East Japan Earthquake Disaster --58 Academic Societies and Japan Academic Network for Disaster Reduction" (Co-hosted by Disaster Prevention Academic Network Committee, Japan Academic Network for Disaster Reduction) (online)

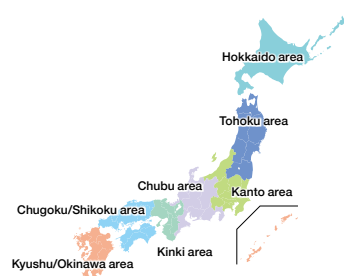


Science Cafe: Provides a place for scientists and citizens to casually discuss science in relatively small space like a cafe.

### Regional Conferences and Regional Science Council

For the purpose of contributing to the academic promotion in the community, as well as to communicate with local scientists, SCJ has organized seven blocks of District Conference and has been carrying out activities such as open symposiums with themes that are relevant to the local communities.

As part of our efforts in local regions, we hold the "Regional Science Council." The president and other members of the Executive Board, which is the governing body of the SCJ, actually go to each region to solve regional issues and further promote understanding of science through exchange of opinions with members living in the region and leaders in various fields as well as through dialogue with the younger generation.



### Functional reinforcement of academic societies

Academic research organizations (so-called "academic societies") are composed of experts in respective fields. As a place for presentation of research results, exchange of knowledge, and coordination between researchers and academic research organizations both in Japan and abroad, academic societies support research activities in Japan beyond the boundaries of universities and other research institutions.

Regarding the issues that extend to the researcher community in general, SCJ is engaged in activities that are conducive to strengthening functions of academic societies by collecting information and opinions from academic societies, deliberating countermeasures, bridging society and researchers and disseminating information.

### Partnership with academic societies

Among the academic research organizations and the federation of academic research organizations, approximately 2,000 organizations that have requested cooperation with the activities of SCJ and been approved by the Executive Board are designated as "Cooperative Academic Research Organization of Science Council of Japan", with whom close partnerships are formed.



## Science Council of Japan

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