



Supporting the Dreams of Researchers-**Always and Forever** 



JAPAN SOCIETY THE PROMOTION OF SCIENCE FOR

独立行政法人

日本学術振興会

Excellent knowledge is the power that drives the sustainable development of societies and that strengthens the competitive prowess of nations. This knowledge is spawned by individual researchers who challenge new frontiers while giving expression to their own free ideas and innovative concepts. The role of the Japan Society for the Promotion of Science (JSPS) is to create an environment that is supportive of researchers who boldly challenge the frontiers of knowledge, one in which they can immerse themselves in their research activities.

#### JSPS: Japan Society for the Promotion of Science

Established in 1932 with an endowment from Emperor Showa, JSPS is today Japan's only independent funding agency with a mission to advance science. JSPS carries out a wide variety of programs in pursuit of this mission. They include programs to fund scientific research, foster researchers, promote international scientific exchange, and reform university systems

1932

Approved to be established as a foundation

## Message from JSPS President

SUGINO Tsuyoshi

2022 was a year that saw people around the world surprised to find Europe as an arena for war between countries. Three years prior, the advent of the novel coronavirus (COVID-19) pandemic had impeded international exchange. As the world continued to seek solutions to impaired collaboration, other factors such as the turmoil in Europe came into play.

Even amidst the calamities of such a year, a steady stream of people from numerous countries came to JSPS's offices expressing an enthusiastic desire for exchange with Japan.

The kinds of questions they ask are: "Can our framework for scientific exchange with Japan be expanded?" "Our one wish is to initiate exchange with Japanese researchers." "Could we establish a program for exchange exclusively with young Japanese researchers?"

From such voices, I sensed a respect for Japan's research culture and community that transcends mere numbers and rankings-for an academic world in which exists not only an advanced but also an ardent and crisp research environment. This discovery was for me both surprising

2003 October

 $\bigcirc$ 

1967 September

Established as an incorporated administrative agency

Established as a quasi-governmental organization

# HISTORY

and heartening.

I take this opportunity to express anew my admiration for the researchers whose accumulative efforts and achievements have over many years created and nurtured this research culture and community in Japan. While continuing to sustain this unique research environment, JSPS will support Japan's "true" research assets and capabilities. It is with this determination that I welcomed the turn to year 2023.

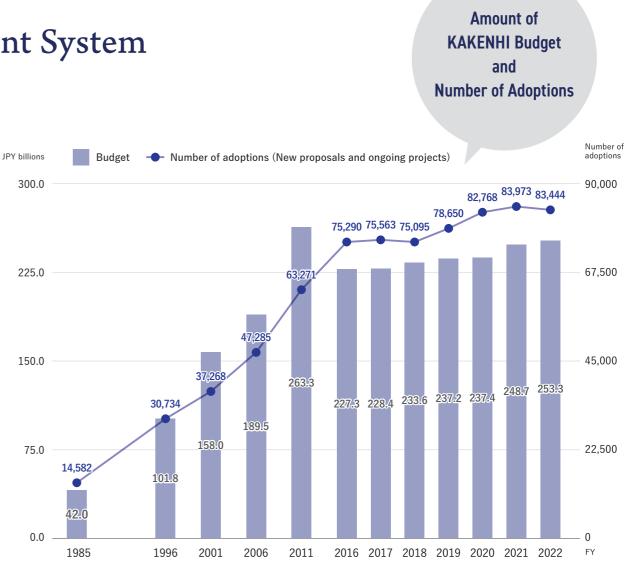
## 01 Supporting Scientific Research Driven by Free Ideas via Japan's Largest Research Grant System

### Grants-in-Aid for Scientific Research (KAKENHI)

It is scientific research based on researchers' own free ideas from which springs forth the science, technology and innovation that contributes to the solution of societal issues and to the enrichment of people's lives.

The KAKENHI (Grants-in-Aid for Scientific Research) program supports scientific research across all fields from the humanities and social sciences to the natural sciences and across the spectrum from basic to applied research.

This grant program's precursor was Scientific Research Grants established by the Japanese government in 1918. Today, the KAKENHI grant program stands as Japan's largest research funding system. In the future as well, it will continue to support scientific research in ways that sow the seeds and nurture the growth of science.



About 90,000 Applications Each Year In recent years, there have been about 90,000 applications annually for KAKENHI grants. Among them, about 30,000 new applications are adopted. In FY 2022, this made a 28.6% adoption rate. When combined with continued research projects, KAKENHI supports about 80,000 research projects each year. Over **8,000** Researchers Participate in Fair and Transparent Reviews

Toward selecting high-quality, outstanding research projects, KAKENHI's review process mobilizes some 8,000 researchers who serve as reviewers. They conduct a fair and transparent process of peer review\*.

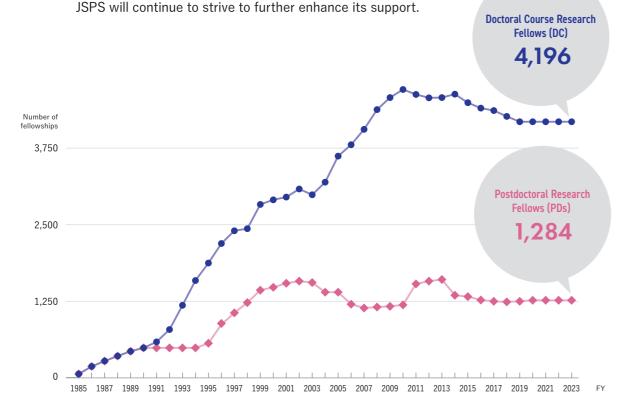
\* Peer review is a process in which researchers, who are chosen by their research communities and rooted in conscience as scientists, mutually evaluate and judge the scientific merit of individual research projects.

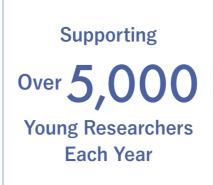
## Providing Opportunities for Excellent Young Scientists to Focus on Their Research; Fostering the Next Generation

### **Research Fellowships for Young Scientists**

The future of research in Japan lies on the shoulders of young researchers, including some 75,000 doctoral students and about 16,000 postdoctoral researchers. From among them, exceptionally talented young researchers who pass a rigorous national-level evaluation are selected as JSPS Fellows and supported in a way that allows them to concentrate on their own research at universities and other research institutions.

It is often said that the groundbreaking achievements of Nobel laureates are rooted in the innovative research they conducted in their 20s and 30s. In the early years of their careers, it is important for researchers to be able to concentrate on their research while freely choosing their own research topics. With the aim of providing such an environment for many young researchers,





Initiated in 1985, our Research Fellowships for Young Scientists now support more than 5,000 young researchers annually. Established within the research community, these fellowships provide pathways for outstanding young researchers. Additionally, the support provided by JSPS takes into consideration the life events of young researchers, such as childbirth and childcare. So as to provide JSPS Fellows with a more stable environment in which to concentrate on their work, JSPS will continue to respond flexibly to the needs of young researchers while enhancing systems to support them.

After five years from completing their fellowships, 84.6% of Postdoctoral Research Fellows (PDs) secure full-time research positions, and after 10 years, 78.2% of Doctoral Course Research Fellows (DC) secure such positions. This program plays a pivotal role in cultivating the careers of young researchers in Japan.

Initiating an Employment-Support Program Starting from FY 2023, JSPS introduced a program enhancement that will enable host research institutions to employ Postdoctoral Research Fellows (PDs) who have not yet had an employment relationship with them. By supporting research institutions that share the goals of the Fellowships and wish to proactively recruit and train outstanding young researchers by hiring PDs, JSPS will better create an environment in which PDs can devote themselves even more fully to research.

About

## Secure Full-time Research Positions

Strengthening the Infrastructure for International Research Networking; Enhancing Japan's Presence Worldwide



The history of JSPS's international exchange activities goes back to the 1950s. JSPS International Fellowships for Research in Japan was initiated in FY 1959 during a period when Japan was in the midst of strengthening the international orientation of its society after the war. Then in FY 1962, the U.S.-Japan Cooperative Science Program was launched as a product of a U.S.-Japan Summit. JSPS was designated to represent

the Japanese side of that program. Amid a growing movement among countries toward strengthening international scientific exchange on a national level, JSPS took the initiative in implementing what would be Japan's first international scientific cooperation programs. From that juncture, JSPS steadily expanded its cooperation and exchange programs with sciencepromotion organizations in countries around the world. As of September 2023, JSPS had international research networks in operation with 97 counterpart organizations worldwide.

Moreover, JSPS has now established ten overseas offices in nine countries and has a science advisor. They liaise with science-promotion organizations in their host countries and regions and disseminate information on scientific developments and initiatives in Japan. JSPS alumni associations have also been established in 20 countries around the world. The main members of the associations are researchers who have experienced participating in JSPS programs. JSPS supports the continuation of networking among the alumni and with their colleagues in Japan. Leveraging these program assets, JSPS contributes to strengthening Japan's scientific presence within international research networks.

### **Dispatching Researchers**

5,459

Through its Overseas Research Fellowships and other researcher-dispatch programs, JSPS sends Japanese researchers overseas. It also implements bilateral and multilateral programs through which it supports researcher exchanges, joint research projects and joint seminars carried out between research teams from Japan and other countries. In addition, JSPS supports the creation of international research hubs. For these programs, 5,459 Japanese researchers were dispatched to 97 countries and regions in FY 2019.

Through its International Fellowships for Research in Japan and other programs, JSPS invites excellent researchers from other countries to Japan and supports platforms for them to conduct joint research with Japanese colleagues. This process yields networks built with researchers from other countries and advances the internationalization of Japan's research environment. Through these programs, 3,040 researchers were invited to Japan from 94 countries and regions around the world in FY 2019.

**International Joint Research** 11,991

\* The above numbers are given for FY 2019 as it was the last fiscal year before international exchange was interrupted by the onset of novel coronavirus (COVID-19) pandemic.









Through the aforementioned international academic collaboration programs and KAKENHI (Grants-in-Aid for Scientific Research) programs, 11,991 international joint research projects were supported between Japan and 152 countries and regions in FY 2019.

2015

JSPS Science Advisor in São Paulo

Strengthening the Education and Research
 Functions of Universities; Raising the Level of Japan's Research Capacity

## Strengthening the Research Institutions

Through KAKENHI grants-in-aid and other programs, JSPS supports individual researchers; it also supports institutions such as universities. Among these, a program which has consistently made outstanding scientific achievements is the **World Premier International Research Center Initiative (WPI)**, launched by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in FY 2007. The program works to build "globally visible" research centers in Japan that

boast a very high standard of research and an outstanding research environment. JSPS conducts the program's grant selection and project assessment processes and performs support functions aimed at maximizing the WPI Program's achievements.

In FY 2022, MEXT and JSPS launched a new program to strengthen the research capacities of regional core universities and of universities with strengths in specific fields. This program supports for research universities to establish both hardware and software environments necessary to accelerate and elevate internationalization and social implementation of research activities. In such ways, JSPS is working with MEXT to establish clusters of research universities that will drive the advancement of Japan's research capabilities.

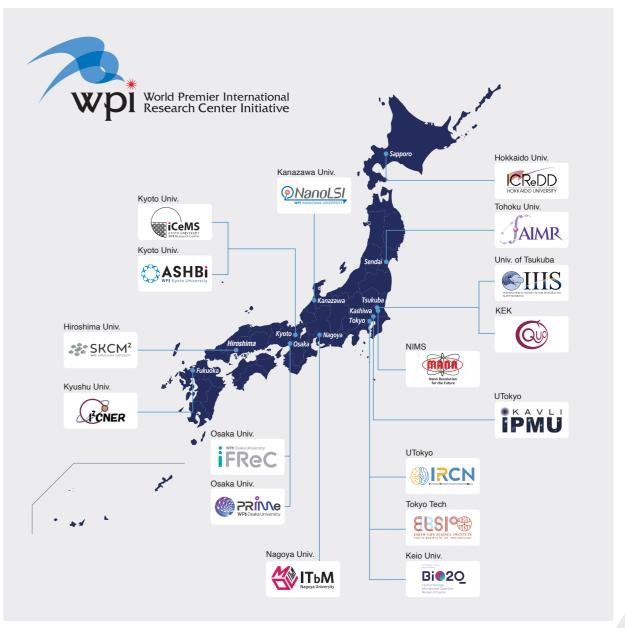
In universities, research and education are two sides of the same coin. The knowledge creation activities of researchers and the cutting-edge research results they produce are critical to the advancement of science, as is teaching students about them. JSPS takes this perspective when conducting the screening and evaluation processes for MEXT's various university reform programs.



#### Ratio of Overseas Researchers at WPI Centers

The ratio of overseas researchers working at WPI centers stood at 37.2% in FY 2019. This stands in contrast to about 6% in Japan's universities and research institutions, indicating the extent to which the WPI centers provide a fertile international environment for advancing research in Japan.

## World Premier International Research Center Initiative (WPI)



Since the program has launched, 17 WPI centers have been adopted up to FY 2022. The program works to enhance and strengthen these centers, making them "globally visible" by their highly internationalized environments and top-level research standards.



## Recognizing Excellent Researchers Who Contribute to Scientific Advancement and Knowledge Creation

## JSPS Prize

The JSPS Prize was established in FY 2004 to recognize young researchers who possess abundant creativity and superb research ability. It is a component of JSPS's mission to foster talented young researchers. Each year, about 25 of these Prizes are awarded to young researchers. In FY 2006, the JSPS Prize was awarded to Dr. YAMANAKA Shinya, who went on to win the Nobel Prize in Physiology and Medicine in 2012. The program identifies excellent young researchers who can be expected to excel on the world stage and recognizes them at an early stage in their careers with an aim to boost their zeal for research. In turn, it's anticipated that the Prize recipients will go on to elevate the standard of Japanese research in their respective fields to a top world level.

## JSPS Ikushi Prize

The JSPS *Ikushi* Prize is awarded each year to about 16 outstanding doctoral students who can be expected to contribute to the advancement of science in Japan. On the 20th year of his ascending to the throne, Emperor Emeritus Akihito provided the endowment for this Prize to support and encourage young researchers who are diligently pursuing their studies and research within an economically challenging environment. This Prize was established in FY 2010.

### International Prize for Biology

The International Prize for Biology is awarded to researchers who have superlative, worldlevel research achievements in biological sciences. Each year, one recipient is chosen who has made groundbreaking progress in advancing science on a global plane. The Prize commemorates the 60th year of Emperor Showa's reign and his devotion to biological science and also Emperor Emeritus Akihito's dedication to ichthyological research (especially gobies). This Prize was established in FY 1985 to encourage milestone advancements in biological sciences.

Scenes from the ceremonies and receptions of each Prize



## Think Tank Staffed with Frontline Researchers—Reflecting Latest Trends in Scientific Research in JSPS's Operations



the group's purview.

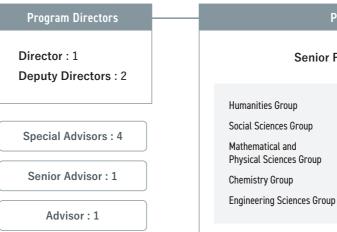
### **Research Center for Science Systems**

JSPS conducts its screenings and evaluations through highly equitable and transparent processes. The organization within JSPS that constantly verifies the quality of the results of these processes and offers JSPS operational proposal and advice is the Research Center for Science Systems. Frontline researchers employed in universities and research institutions serve as Senior Program Officers (Senior POs) or Program Officers (POs) at the Center. They prepare lists of reviewer candidates for the KAKENHI Grantsin-Aid, Research Fellowships for Young Scientists and other JSPS programs; attend review committee meetings; and analyze and verify the status of application screening processes. (They do not participate in the actual screening or in selection processes.) Providing a bridge between JSPS and the research community, the Center ascertains the latest trends in scientific research and by reflecting the voices of researchers on the ground in its proposals. In so doing, the Center improves the quality and enriches performance JSPS's programs.

The Research Center for Science Systems was established in July 2003. Based on a recommendation by the Council for Science and Technology Policy, Cabinet Office (title of the Council at that time), the purpose of the Center was to establish a system for conducting rigorous and highly transparent evaluations of competitive research-funding schemes operated by JSPS—a system run consistently by people with extensive research expertise and capable of assuming responsibility for the Center's operation.

Twenty years having passed since its establishment, the Center's role and its value are now widely recognized within the research community. With peer review at the core of its screening and evaluation processes, the Center will continue to play a pivotal role in advancing scientific research and in providing support to researchers based on their views and needs.

### Organizational diagram of Research Center for Science Systems



In the implementation of JSPS programs, high-quality research projects and outstanding young researchers who will shoulder science's future are selected by review committees comprising experts who are well-versed in their subject research fields and possess sufficient ability to accurately conduct application reviews. So that application screening in each of JSPS's programs will be carried out fairly and from wide perspectives, each year the Center's Senior POs and POs select about 11,000 review committee candidates, taking into account diversity among them, from a database registering some 148,000 researchers.

The Center's staff comprises one Director and two Deputy Directors, who serve as Program Directors with overall responsibility for the implementation of JSPS's competitive research funding programs, and 139 Senior POs and POs.

In principle, each program officer belongs to one of nine of the Center's program groups and has duties related to the screening and evaluation processes of JSPS programs under

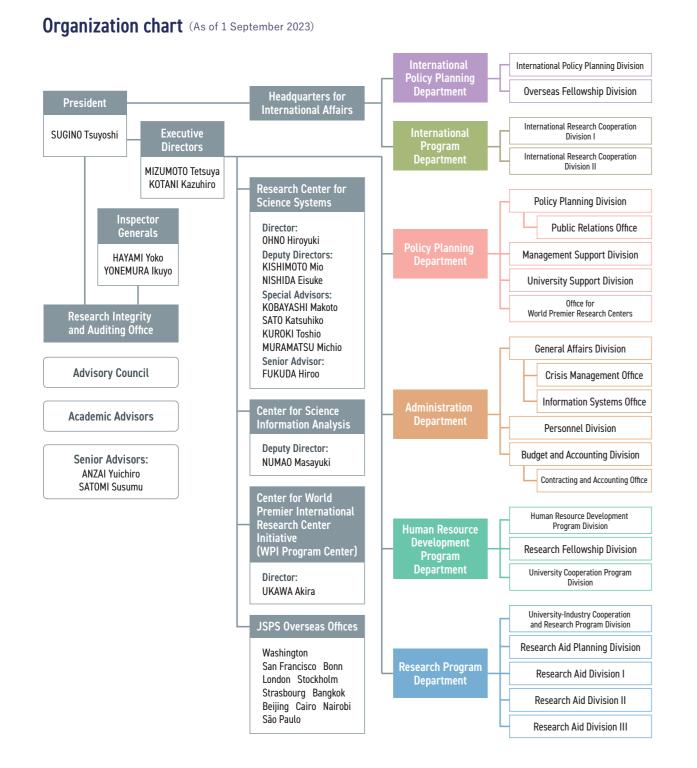
Deserver	046.0000
Program	Unicers

Senior POs: 31 POs: 108

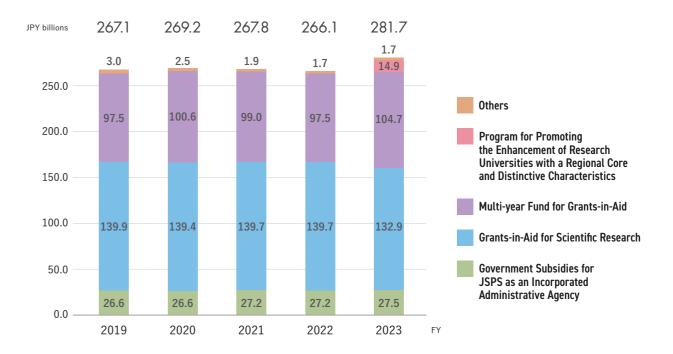
Informatics Group Biological Sciences Group Agricultural and Environmental Sciences Group Medical, Dental and Pharmaceutical Sciences Group

**Reviewer candidates** chosen from about 148,000

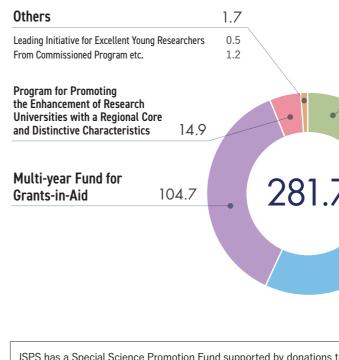
researchers



## Transition in budgets of main programs



## FY 2023 Budget by program



JSPS has a Special Science Promotion Fund supported by donations to use when a need arises for special assistance. For inquiry about donating to the Fund, please contact JSPS's General Affairs Division, Administration Department (Tel: +81-3-3263-1722).

## Transition in number of JSPS executives and employees (Numbers on 1 April of each fiscal year)

FY	2019	2020	2021	2022	2023
Executive	5	5	5	5	5
Full-time employee	175	161	167	170	177

JPY billions

Administrative Agency	27.5
Research Fellowships for Young Scientists	19.3
International Scientific Cooperation Programs	5.9
Research Application Programs	0.7
Research Center for Science Systems	0.6
General Administration	0.9
Grants-in-Aid for	
Scientific Research 13	32.9

the added-up items.

## List of Programs

	Program	Support (implementation) period	Expenses supported / Expense items
Rese	Grants-in-Aid for Scientific Research (KAKENHI)	1-7 years (differs by research category)	Amount of grant differs by research category
Support for Research Initiatives	Topic-Setting Program to Advance Cutting-Edge Humanities and Social Sciences Research (Co-Creation of Academic Knowledge)	6 years	For each research theme Approximately JPY 15 million per fiscal year
ives	Program for Strengthening Data Infrastructure for the Humanities and Social Sciences	Up to 5 years	Approximately JPY 20 million per project per fiscal year
Fos	Research Fellowships for Young Scientists	2-5 years (depending on category of fellowship)	Stipend JPY 200,000 - JPY 446,000 per month Research grants up to JPY 4.5 million Varies depending of application category and research period In addition to the above, Cross-border Postdoctoral Fellows (CPDs) receive travel expenses (roundtrip air ticket)
Fostering Next Generation of Researchers	Overseas Research Fellowships	2 years	Roundtrip international airfare, maintenance allowance (Approximately JPY 4.5 million - JPY 7.5 million per year) In addition to the above, Restart Research Abroad (RRA) fellows also receive roundtrip airfare, child allowance for accompanying children (equivalent to 10% of Fellow's maintenance allowance per accompanying child)
ation of Re	Overseas Challenge Program for Young Researchers	3 months to 1 year	Roundtrip international airfare Maintenance allowance (JPY 1 million - JPY 1.4 million) Research stipend
searchers	Leading Initiative for Excellent Young Researchers (LEADER)	Up to 5 years	<ul> <li>[A] ① Research expenses: Up to JPY 6 million per person per year for 2 years (For Humanities and Social Sciences: Up to JPY 4 million per person per year)</li> <li>② Expenses for improving the research environment: Up to JPY 2 million - JPY 4 million per person per year for 5 years</li> <li>[B] Costs for industry-academia collaborations: Up to JPY 10 million per person per year for a maximum of 5 years</li> <li>※Companies choose either [A] or [B].</li> </ul>
	Bilateral Programs (Joint Research Projects and Joint Seminars)	Joint Research Projects: 1-3 years Joint Seminars: within 1 week (depending on the program)	Joint Research Projects: JPY 1 million - JPY 2.5 million per project per fiscal year Joint Seminars: JPY 1.2 million - JPY 2.5 million per seminar (depending on the program)
	Bilateral Programs (Researcher Exchange Program)	3 months to 2 years (differs by counterpart organization)	Roundtrip airfare, maintenance allowance, etc. (provided by counterpart organizations) Domestic travel expenses (provided by JSPS)
	Japanese-German Graduate Externship	Up to 5 years	Up to JPY 15 million per project per fiscal year
Internati	International Joint Research Program	Up to 3 or 5 years (depending on the program)	Up to JPY 10 million per project per fiscal year (depending on the program)
International Academic Collaborations	Core-to-Core Program     Image: Core-to-Core Program       A. Advanced Research Networks     Image: Core-to-Core Program       B. Asia-Africa Science Platforms     Image: Core-to-core-to-Core-to-Core-to-Core-to-Core-to-Core-to-Cor	A. Up to 5 years B. Up to 3 years	A. Up to JPY 18 million per fiscal year B. Up to JPY 8 million per fiscal year
mic Collab	A3 Foresight Program	5 years	Up to JPY 50 million for 5 years
orations	Postdoctoral Fellowships for Research in Japan         A. Summer Program         B. Short-term Program         C. Standard Program	<ul><li>A. 2 months in summer</li><li>B. 1 month up to 12 months</li><li>C. 12 months up to 24 months</li></ul>	Travel cost (roundtrip air ticket), maintenance allowance (Details vary by program)
	Invitational Fellowships for Research in Japan D. Long-term E. Short-term	D. 2 months up to 10 months E. 14 days up to 60 days	Travel cost (roundtrip air ticket), maintenance allowance (Details vary by program)
	RONPAKU (Dissertation PhD) Program	Up to 3 years	Travel cost, supplies, honoraria, etc.
	BRIDGE Fellowship Program	14 days up to 30 days	Travel cost (roundtrip air ticket), maintenance allowance, research support allowance

	Program	Support (implementation) period	Expenses supported / Expense items
Internat	HOPE Meetings with Nobel Laureates	About 5 days	Domestic travel cost, maintenance allowance, other participation expenses
International Academic Collaborations	Frontiers of Science (FoS) Symposia	4 days	Roundtrip airfare, overseas and domestic transportation costs, maintenance allowance
emic Colla	Nobel Prize Dialogue	One day	Free-of-charge attendance
borations	Young Researcher Support for Attending Lindau Nobel Laureate Meetings	About 1 week	Roundtrip airfare, international/domestic transportation, meeting registration fee (including accommodation charge)
	World Premier International Research Center Initiative (WPI)	In principle, 10 years	Up to JPY 700 million per fiscal year for centers selected during the period from fiscal 2012 to 2022
	A new program to strengthen the research capacities of regional core universities and of universities with strengths in specific fields	5 years	Up to Approximately JPY 550 million per project
Enhan	WISE Program (Doctoral Program for World-leading Innovative & Smart Education)	7 years	Selected in 2018: Approximately JPY 130 million per year per proj Selected in 2019: Approximately JPY 140 million per year per proj Selected in 2020: Approximately JPY 160 million per year per proj
cing the Ec	Project for Designing Graduate Programs Emphasizing Digital Literacy across Diverse Fields; X Program	Up to 6 years	Up to Approximately JPY 70 million per project (first year, annually)
ducation ar	Project for the Establishment of Networked Graduate Schools in the Humanities and Social Sciences	Up to 6 years	Up to JPY 40 million per project (first year, annually)
Enhancing the Education and Research Functions of Universities	Human Resource Development Project	Menu I, II Up to 5 years Menu III Up to 4 years	Menu I: Up to JPY 30.78 million per project per fiscal year Menu II: Up to JPY 22 million per project per fiscal year Menu III: Up to JPY 29.35 million per project per fiscal year
Inctions of Un	Supereminent Program  for Activating Regional Collaboration -SPARC-	Type ① Up to 6 years Type ② Up to 6 years	Type (1): Up to JPY 200 million per project for first fiscal year Type (2): Up to JPY 100 million per project for first fiscal year $(2)$
iversities	Producing Professional Human Resources in Growth Fields - Recurrent Education Promotion Project	From the day a project starts after preliminary disbursement decision to March of following year	Menu A: Up to Approximately JPY 26.66 million per project Menu B: Up to Approximately JPY 13.36 million per project Menu C: Up to Approximately JPY 26.88 million per project Menu D: Up to Approximately JPY 29.76 million per project
	Inter-University Exchange Project	Up to 5 years	Type A: Up to JPY 34 million per project for first fiscal year Type B: Up to JPY 142 million per project for first fiscal yea
	Top Global University Project	Up to 10 years	For each project Up to JPY 200 million - JPY 500 million per fiscal year
Streng	HIRAMEKI ATOKIMEKI SCIENCE - Welcome to a University Research Lab - Science That Inspires and Inspirits	From the day of preliminary disbursement decision to March of following year	Up to JPY 500,000 per program
Strengthening Linkage with Society	Science Dialogue	As scheduled	Teaching materials cost, domestic transportation expense, etc.
nkage /	University-Industry Research Cooperation Societally Applied Scientific Linkage and Collaboration	5 years	Various expenses for holding meetings, workshops, etc.
Resea	arch Integrity Promotion Program		
Resea	arch Center for Science Systems	Center for	Science Information Analysis



### Website https://www.jsps.go.jp/english/



### JSPS Official X (Twitter) (@jsps\_sns)



Real-time information provided via X (Twitter)

Email Magazine (available in only Japanese language) Information on application calls and events posted once a month



#### JSPS Official YouTube Channel

Event updates and program introductory videos posted

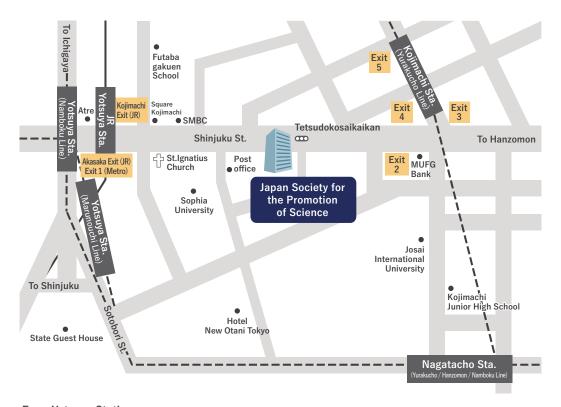


### JSPS-Net (JSPS Researchers Network)

SNS used to support networking among researchers and research-support personnel around the world







### From Yotsuya Station

·JR(Sobu Line / Chuo Line) 8 minutes walk from Kojimachi Exit and Akasaka Exit ·Tokyo Metro (Marunouchi Line / Namboku Line) 10 minutes walk from Exit 1

#### From Kojimachi Station

•Tokyo Metro (Yurakucho Line) ----- 6 minutes walk from Exit 2

### Kojimachi Business Center Building, 5-3-1 Kojimachi, Chiyoda-ku, Tokyo 102-0083

+81-3-3263-1722 [General Affairs Division, Administration Department (Reception)]

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