

JSPS

2019-2020



JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

日本学術振興会

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Message from JSPS President



Academic research is the act of opening frontiers of human knowledge. Knowledge created and systematized through research in various academic fields presents new challenges to be bestowed upon the next generation as important assets of human culture. It is from unflagging academic research that we create the legacy of new technologies contributing to human welfare and global problem solving, as well as new concepts to revolutionize society; thus teaching us the value of this circulation of knowledge. Knowledge generated from academic research is the fount of innovation, and the driving force that expands society and nation to pioneer the future. In addition, the world's leading academic research is founded on the free unconventional ideas of every researcher who boldly challenges the impossible. And so, knowledge generated from academic research is the crystallization of each researcher's persistent effort. The fostering of talented people who can shoulder the creation and circulation of such cutting-edge research is more important now than ever before.

The Japan Society for the Promotion of Science was founded in 1932 based on an Imperial endowment. As the nation's sole independent funding agency dedicated to the promotion of science, our doings are diverse. We have supported the activities of researchers steadily and continuously in a wide range of fields, such as subsidizing academic research, training researchers, promoting international academic exchange, and supporting university reform and globalization. Under the fourth midterm plan begun from FY2018, JSPS will actively continue to implement projects essential for academic promotion based on these five program pillars: 1) Creating Diverse World-Level Knowledge, 2) Fostering the Next Generation of Researchers to Pioneer Knowledge, 3) Harnessing University Strengths to Enhance Education and Research Capability, 4) Building a Robust International Research Base, and 5) Building a Comprehensive Academic Information Analysis Base. This fiscal year, a new program, entitled "Cross-border Postdoctoral Fellowship (CPD)," was launched for the purpose of supporting young researchers who transcend national borders in carrying out their research activities. Selection of and support for CPD fellows has started.

Globalization today, engendered by rapid advances in information and telecommunication technology, is greatly influencing the way of academic research by increasing opportunities for researchers to be active beyond national boundaries, and intensifying international competition for outstanding intellectual and human resources. However, severe fiscal and budgetary cuts in Japan in recent years have increased short-term projects that rush to outcome oriented results, and decreased the motivation for researchers to work inventively and imaginatively, making the road to cultivating the next generation of young people hoping to be researchers opaque. JSPS will continue to support challenging research activities born from free thinking individuals and expand it to the international arena by reforming and reinforcing the promotion of academic research through reform of the Grant-in-Aid for Scientific Research Project (KAKENHI), enhancement of support for international research activities, and support for early career researchers starting with special researcher systems, so that our nation's academic research can lead the world even as we foster many young researchers to play active roles on the world stage.

In the fourth midterm target period, in order to respond firmly to contemporary academic research demands to "challenge, synthesize, integrate, internationalize," we will steadily and comprehensively support researchers who boldly strive to pioneer knowledge across all disciplines, from humanities and social science to natural science. We will continue resolutely to conduct efficient and effective management from the standpoint of researchers as we pursue unremittingly improved operations and system reform. We will strive to make JSPS meet the expectations of the public, not to mention researchers and those who aspire to academic research in every field, to make sure that our country contributes to the world through the power of "knowledge" that is of crucial importance to the future.

As we work to move this agenda forward, I ask for your greatly appreciated guidance, support and cooperation.

SATOMI Susumu, M. D., Ph. D.

History of JSPS, Organization

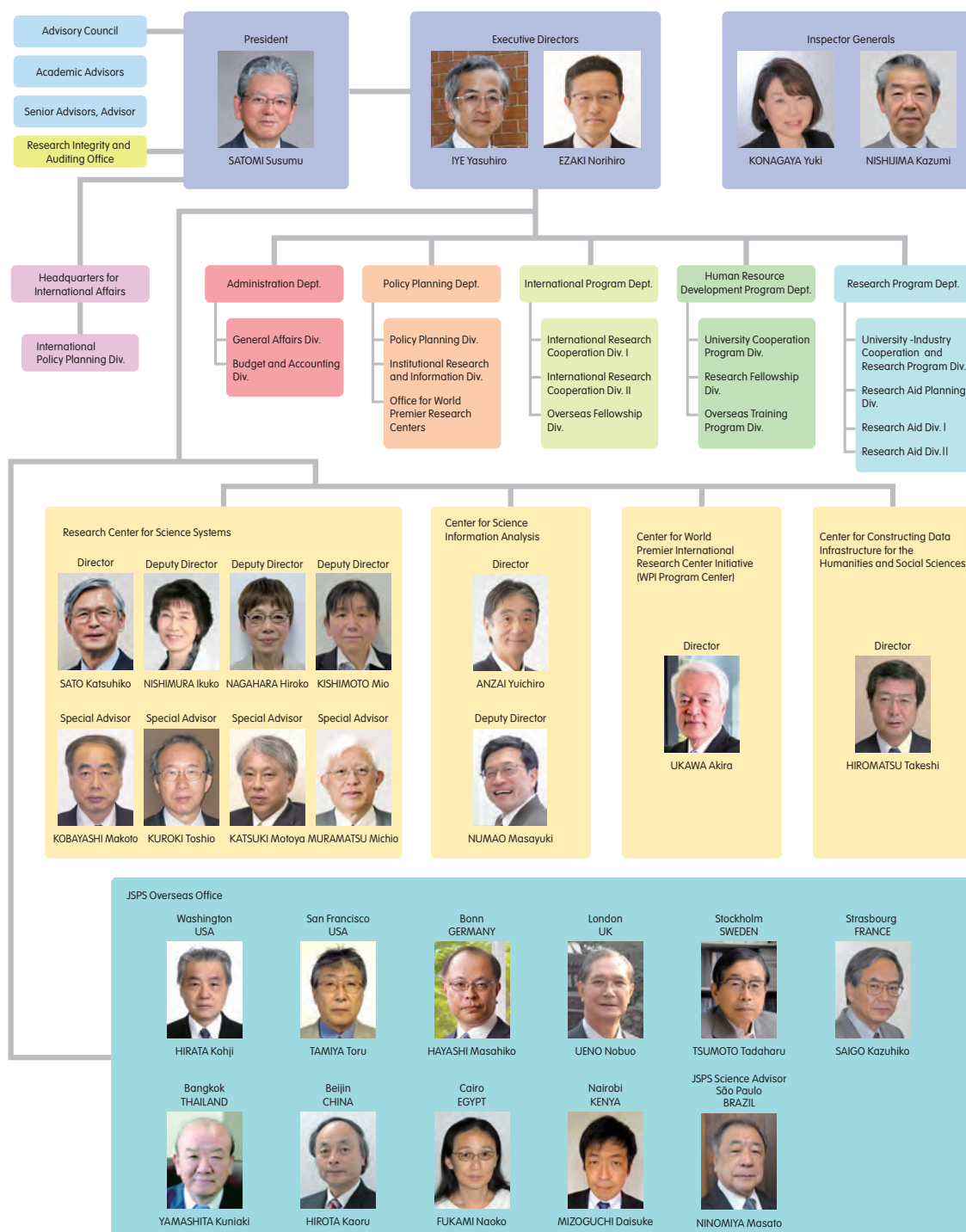
History of JSPS

Based on Act on the Japan Society for the Promotion of Science, JSPS is mandated to fund scientific research, provide financial support for fostering researchers, promote international scientific exchange, and carry out other science-advancement programs. For such purposes, JSPS was established on 1 October 2003 as an independent administrative institution that operates under the jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Looking back, JSPS was originally established as a nonprofit foundation in 1932 with an endowment of 1.5 million yen gifted to the Minister of Education by Emperor Showa. Then in September 1967, the Act on the Japan Society for the Promotion of Science was enacted making JSPS a quasi-governmental organization. Over the course of some 70 years from its initial establishment, JSPS had developed a wide range of programs which accrued to making it Japan's core science-promotion agency. Accordingly, JSPS was reestablished as an independent administrative institution in October 2003 for the purpose of enhancing the services it provides to researchers and research institutions by strengthening and streamlining its administrative capacities.

Organization

As of September 2019



Budget

JSPS budget^(※) for the 2019 fiscal year totaled ¥267.1 billion. This includes ¥26.6 billion operating expense subsidies from the National Treasury, ¥139.9 billion in subsidies for Grants-in-Aid for Scientific Research, and ¥2.1 billion for the “Leading Initiative for Excellent Young Researchers” program. Also included is ¥97.5 billion in funds for JSPS established and prepared by the government.

The chart below shows a breakdown of main budget items. Subsidies and grants from the Government of Japan constitute 99.9% of the budget.

※ The budget contains estimated expenditures for carrying out each program.

Budget transition FY 2013-2019



FY 2019 Budget by program

(Unit: billion yen)

Direct funding	
Government subsidies for JSPS as an Independent Administrative Institution	26.6
Research fellowships for young scientists	18.6
International scientific cooperation programs	5.7
Research application programs	0.8
Research Center for Science Systems	0.6
General administration	0.9
Grants-in-Aid for Scientific Research	139.9
Leading Initiative for Excellent Young Researchers	2.1
From Commissioned Program, etc.	0.9
Multi-year Fund for Grants-in-Aid	97.5
Total	267.1

A "Multi-year Fund for Grants-in-Aid" was established in FY 2011. (FY 2019 budget is ¥97.5 billion)

Transition in number of JSPS executives and employees

	2015	2016	2017	2018	2019
Executive	5	5	5	5	5
Full-time employee	149	157	166	163	175

Numbers on 1 April of each fiscal year

Creating Diverse World-Level Knowledge

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

Purpose

The Grants-in-Aid for Scientific Research (KAKENHI) is a competitive research funding aimed at spawning marked advancement of research carried out based on the free ideas of researchers themselves --research across all fields of the humanities, social sciences and natural sciences that will contribute to the advancement of science in Japan.

Among the research projects proposed by individual or groups of researchers affiliated with Japanese universities and other research institutions, those of particularly high potential that are in line with cutting-edge scientific research trends are selected and funded with KAKENHI. Research that achieve excellent results may also receive KAKENHI for the purpose of publically circulating them through such means as publishing or creating databases.



KAKENHI Logo

Features

(1) Japan's core competitive funding

The annual scale of KAKENHI is approximately ¥237.2 billion (including the following year of grant categories that come under the Multi-year Fund). This accounts for over 50% of Japan's total competitive research funding.

(2) Applies to a wide spectrum of fields

KAKENHI funds research in various fields of the humanities, social sciences and natural sciences.

(3) Places importance on the free ideas of researchers

KAKENHI supports creative and pioneering research carried out based on the researcher's free ideas.

(4) Fair and equitable application review

More than 7,000 researchers carry out fair and equitable peer review.

(5) Meets researcher's needs

Flexible use of the grant possible, such as carrying over funds into the next fiscal year.

The placement of "KAKENHI" in the policy on the promotion of science, technology and scientific research in Japan

		Research Type	
		Scientific research based on researcher's creative ideas [curiosity-driven research]	R&D on policy imperatives [mission-oriented research]
Funding Type	Competitive research Funding (Selected through open calls and review)	Research supported by Grants-in-Aid for Scientific Research	Research funded by open call and selection in line with the missions set by individual Ministries
	Government subsidies for independent administrative institutions	Research conducted at universities and inter-university research institutes	National projects led by the initiative of Government Strategically promoted R&D project conducted by National Research and Development Agencies

Contents

Various research categories are provided based on the objective and nature of the research. Under these

categories, grant administration, including call for proposals, review and grant delivery, is currently divided between MEXT and JSPS.

Program results for the 2018 fiscal year (as of March 2019)

Research Categories	Purposes and description of each research category	SG or MF ^{※1}	Issuer M: MEXT J: JSPS	Status FY2018		
				Applied	Adopted	
Grants-in-Aid for Scientific Research						
Specially Promoted Research	Outstanding and distinctive research conducted by one or a relatively small number of researchers expected to achieve remarkably excellent research results that open up a new scientific field. •Period is 3-5 years (extends to 7 years if necessary). Grant is 200-500 million yen per project (grant may exceed 500 million in exceptionally rare cases).	SG	J	105	12	
Scientific Research on Innovative Areas ^{※3}	(Research in a proposed research area) New research areas proposed by a group of diverse researchers which, through efforts for collective research, scholarly training, shared use of equipment, etc., will develop and lead to the upgrading and enhancement of scientific research in Japan •Period is 5 years. Grant is 10-300 million yen per fiscal year per field in principal.	SG	Call for Proposals: M Review: M Grant Delivery: J	6,158	1,011	
Scientific Research ^{※3}	(S) Creative/pioneering research conducted by one researcher or a relatively small group of researchers. •Period is 5 years. Grant is 50-200 million yen per project.	(s)	J	704		80
	(A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers. •Period is 3 to 5 years. •(A) Period is 3-5 years. Grant is 20-50 million yen. •(B) Period is 3-5 years. Grant is 5-20 million yen. •(C) Period is 3-5 years. Grant is 5 million yen or less.	(A)		J	(A)	2,454
		(B)	(B)		11,577	2,965
			(C)		(C)	43,587
Challenging Research ^{※3}	(Pioneering) (Exploratory) Pioneering research conducted by a single or multiple researchers that aims at radically transforming and/or changing existing research frameworks or direction and has rapid growth potential. Exploratory category covers research that is highly exploratory and is in the early stages. •(Pioneering) Period is 3-6 years. Grant is 5-20 million yen •(Exploratory) Period is 2-3 years. Grant is 5 million yen or less	Pioneering	J	Pioneering	823	82
		Exploratory		Exploratory	11,811	1,426
Early-Career Scientists	Research conducted by single researcher within 8 years of obtaining a doctorate*, or single researcher under age 39 with no doctor's degree *includes researchers expected to obtain a doctorate, and researchers who take maternity/childcare leave after obtaining a doctorate still within 8 years not counting leave time. •Period is 2-4 years. Grant is up to 5 million yen per project)	MF	J	20,369	6,256	
Research Activity Start-up	Research conducted by one researcher who is newly employed, or by one researcher returning from maternity/childcare or other kinds of leave. •Period is up to two years. Grant is up to 1.5 million per year.	SG	J	3,749	950	
Encouragement of Scientists	Research conducted by an individual ineligible for other KAKENHI categories (e.g. individuals in educational, research, or private companies, etc. engage in the research contributing to the promotion of the science). •Period is 1 year. Grant is 100,000-1 million yen per project.	SG	J	3,657	561	
Grant-in-Aid for Special Purposes ^{※2}	Funding of research projects of pressing urgency and importance. (e.g. investigation of natural disaster)	MF	Call for Proposals: M Review: M Grant Delivery: J			
Grant-in-Aid for Publication of Scientific Research Results						
Publication of Research Results	Funding for publication and/or international dissemination of research achievements of high academic value executed by academic associations and other organizations.	SG	J	89	44	
Enhancement of International Dissemination of Information	Funding for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange.		J	44	15	
Scientific Literature	Funding for academic publication of research results (books) authored by an individual or a group of researchers.		J	747	271	
Databases	Funding for creation and operation of a database open to public use, by an individual or a group of researchers.		J	125	44	
Grant-in-Aid for JSPS Research Fellows	Funding for research conducted by JSPS Research Fellows (including JSPS International Research Fellows) •Period is up to three years	SG	J	2,547	2,547	
Fund for the Promotion of Joint International Research						
Fostering Joint International Research	(A) Support for joint international research projects conducted by a KAKENHI grantee in collaboration with researcher(s) at a foreign university or research institute. The grant seeks to markedly advance KAKENHI research projects and to foster independent researchers to be internationally competitive. •Period is 6-12 months. Grant is up to 12 million yen. (B) Support for joint international research projects conducted by multiple domestic researchers and researcher(s) from an overseas research institute. Along with the development of academic research, it aims to build and strengthen the foundation of international joint research and to cultivate researchers who can be active internationally. •Period is 3-6 years. Grant is up to 20 million yen.	MF	J	505	162	
				2,335	257 ^{※4}	
Home-Returning Researcher Development Research	Support for research by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institute in Japan. •Period is up to 3 years. Grant is up to 50 million yen.		J	34	11	
Generative Research Field	This category is open to "Scientific Research (B/C)" proposals for which screening within the conventional framework may be difficult and/or to applicants who prefer their proposals be screened from a broader perspective relevant to the Generative Research Field. •Period differs depending on the year of application. *After the call for proposals in FY2018, setting of new fields is suspended. (FY2018 Call for proposal limited to 6 fields established in FY2016 & FY2017.)	MF	J	1,218	100	

*1 SG: Series of Single-year Grants, MF: Multi-year Fund

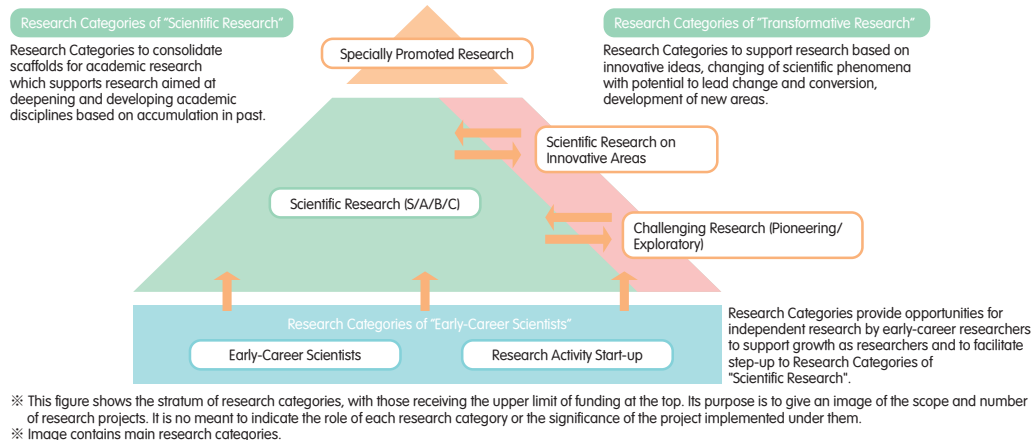
*2 Under the categories "Scientific Research on Innovative Areas" and "Grant-in-Aid for Special Purposes" MEXT issues call for proposals and adoption, and JSPS delivers grants.

*3 Excluded are the categories "Scientific Research on Innovative Areas (Research in a Proposed Research Area)" "Platforms for Advanced Technologies and Research Resources", "Scientific Research (Generative Research Fields)", "Challenging Research (Generative Research Fields Review Division)" and "Specially Designated Research Promotion".

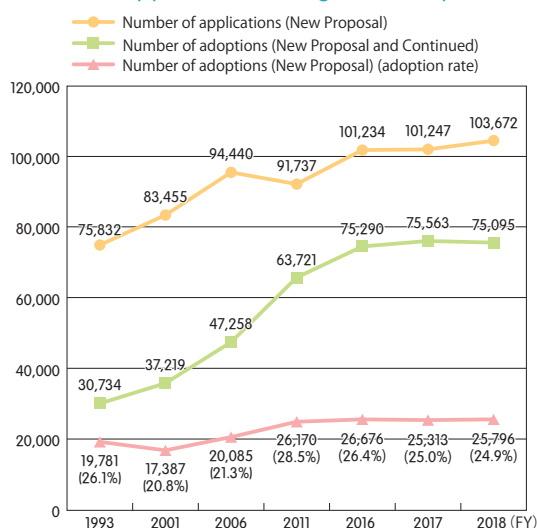
*4 This number includes 23 additional selections using the second FY2019 supplementary budget.

*5 After the review process is completed, the reviewers' names are posted on JSPS's website. The adopted projects are entered in the KAKEN database of the National Institute of Informatics for public access.
KAKEN URL: <https://kaken.nii.ac.jp>

Image of research categories in FY 2019



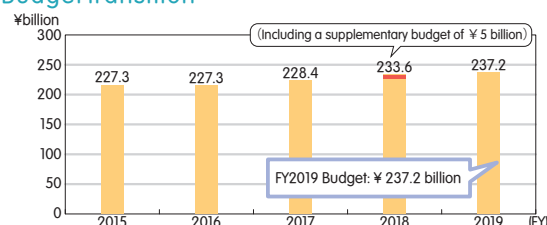
Number of applications and grants adoption



Excluding Encouragement of Scientists, the above graph gives the total of all KAKENHI categories. Projects adopted in or after FY 2014 under the category Generative Research Field are also excluded. Fostering Joint International Research (B) included in FY2018.

Shown are the KAKENHI research categories: Specially Promoted Research, Scientific Research on Priority Areas, Scientific Research on Innovative Areas, Scientific Research, Challenging Research, Challenging Exploratory Research, Early-Career Scientists, Young Scientists, Research Activity Start-up, and Encouragement of Scientists.

Budget transition



*In 2011, a Multi-year Fund was established within the Grants-in-Aid program. Therefore, the FY2011 and subsequent budgets include funds that will be disbursed in out years. FY2019 budget is ¥237.2 billion (Increased ¥8.6 billion from the previous year's initial budget).

positioning academic research as the source of national strength. ("Promotion of Academic Research in Japan and Reform of KAKENHI (Interim Report)" in August 27, 2014, Subdivision on Science Council for Science and Technology)

The Fifth Science and Technology policy (FY2016-2020) embodies content including from the quantitative perspective of setting a goal to increase the adaption rate to 30%.

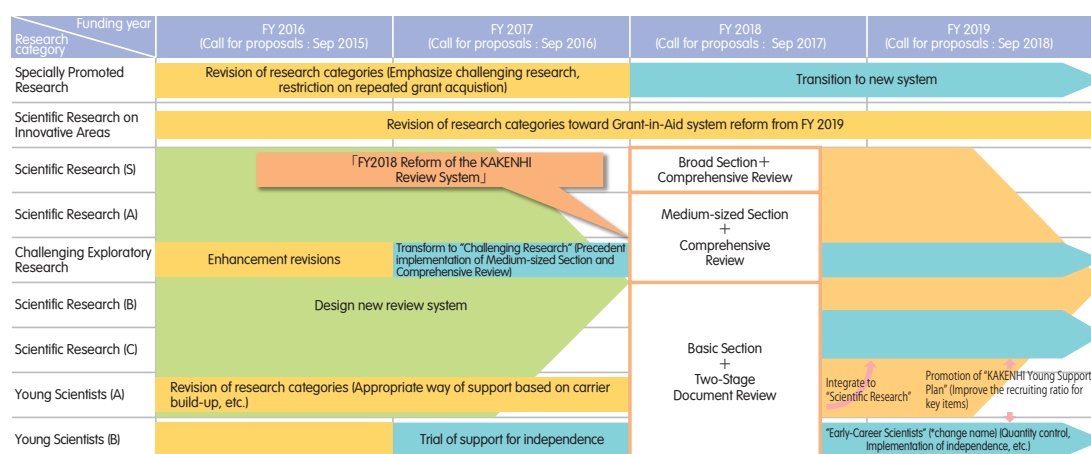
(1) KAKENHI Reform

Against this backdrop, reform of the KAKENHI program is being carried forward according to Implementation Policy of KAKENHI Reform. This initiative has three pillars: 1) Revision of the review system; 2) Revision of research categories and frameworks; and 3) Implementation of flexible and effective grant-usage system. As a vanguard reform, a new review system has been introduced since the 2018 funding year (call for proposals: September 2017).

Radical Reform of KAKENHI System

It is questioned whether Japan can continue producing the kind of excellent scientific results that will allow it to maintain its international presence in future years. Given this situation, the Council for Science and Technology, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has issued a recommendation for radically reforming the Grants-in-Aid for Scientific Research (KAKENHI),

Trajectory of Grant-in-Aid System Reform —Reform Application Review System and Research Categories—



(2) Revision of the Review System

(FY2018 Reform of the KAKENHI Review System)

Under the Grants-in-Aid for Scientific Research (KAKENHI), the review system for Scientific Research and other categories received high marks from researchers for its ability to quickly and fairly review a huge volume of applications. Over recent years, however, there has been a steady increase in the number of grant applications coupled with a gradual shift in the trajectory of research proposals. This changing environment spawned requests to improve both the application review system and its research categories. Concomitantly, there was also a need to reform the review method so that it responds to changing scientific trends and in ways that better identify and fund highly viable research projects within a competitive environment.

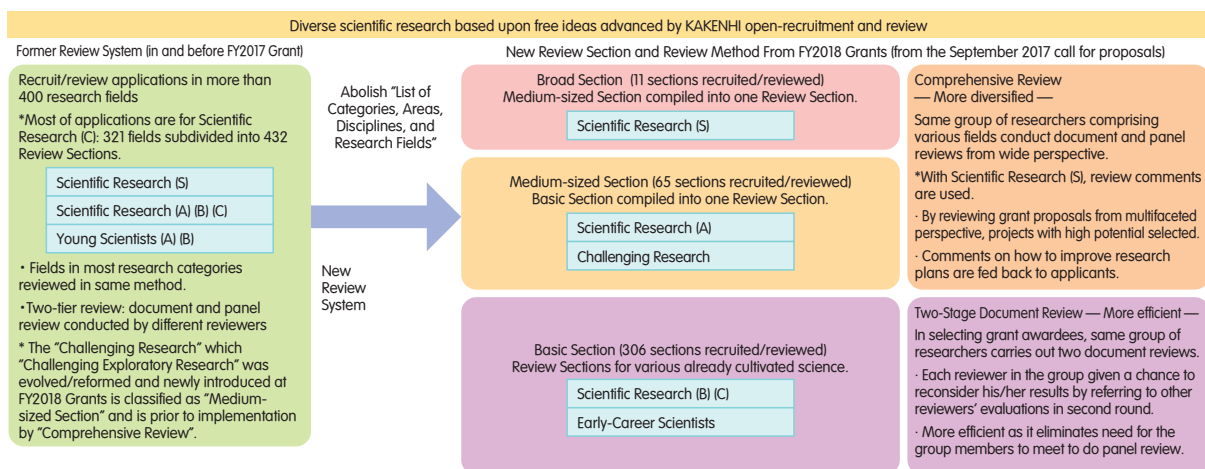
Against this backdrop and toward the Grants-in-Aid for Scientific Research for fiscal 2018 (from the September 2017 call for proposals), we have revised KAKENHI Review Section and Review Method in the

following ways:

- The “List of Categories, Areas, Disciplines and Research Fields” applied in and before fiscal 2017 was abolished and a new “Review Section Table” consisting of “Basic Section”, “Medium-sized Section” and “Broad Section” has been adopted for the review.
- We have introduced the Comprehensive Review in which both document review and panel review are conducted by the same reviewers and also introduced the Two-Stage Document Review in which the document reviews are conducted in each stage by the same reviewers instead of the method in which both the document review and the panel review are conducted by different reviewers applied in and before fiscal 2017. (The review method depends on the research category).

As a connective to ongoing system reform, the KAKENHI program will be periodically re-evaluated and initiatives advanced in response to changes in scientific trends and research environments.

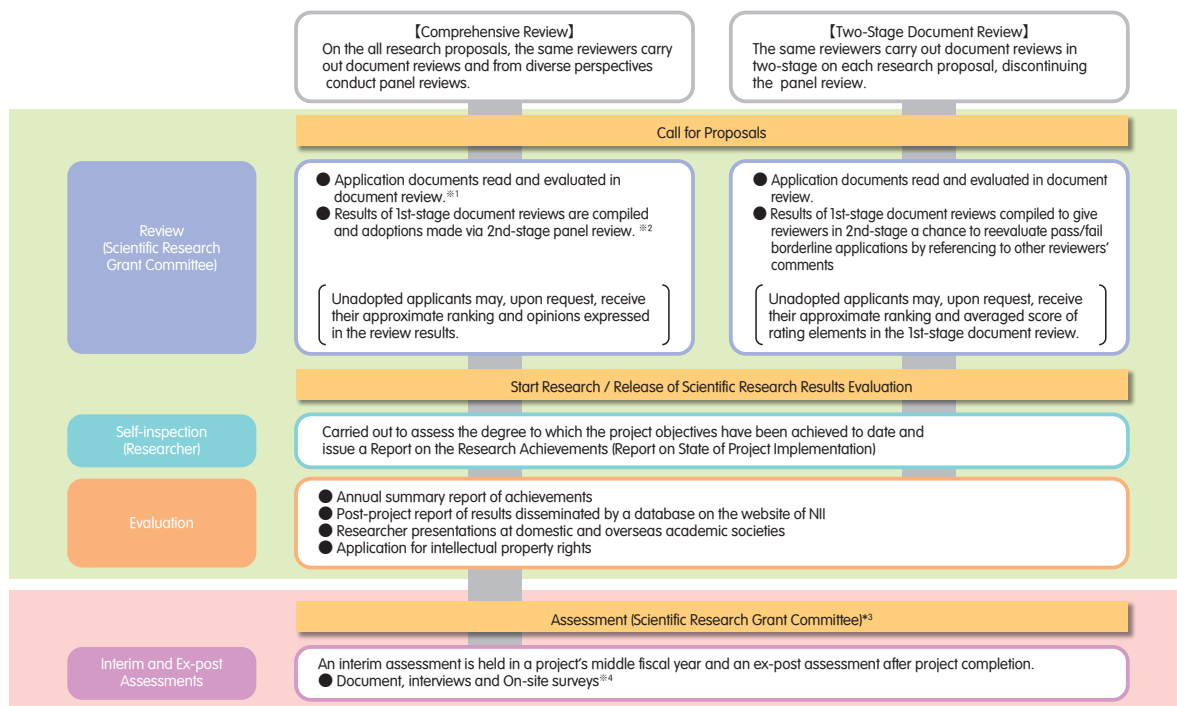
Summary - FY2018 Reform of the KAKENHI Review System



※1 The Review Section for the large-scale research category ("Grant-in-Aid for Specially Promoted Research", "Grant-in-Aid for Scientific Research on Innovation Areas") which have been reviewed on "category unit" of Humanities and Social Sciences, Science and Engineering, Biological Sciences, etc. is basically implemented as it is. As for the review method, we plan to gradually improve it after the review progress of the event.

※2 The system of being able to choose two fields when applying under the categories Disciplines and Research Fields with a Time Limit or Young Scientists (B) is scheduled to be abolished as it is premised on the defunct List of Categories, Areas, Disciplines and Research Fields.

Procedural flows review and evaluation from FY 2018



※1 In the categories Challenging Research and Generative Research Fields, preliminary screening will be carried out to reduce to applications to a suitable number for the document review.

※2 Interviews will be carried out on Specially Promoted Research and Scientific Research (S).

※3 Assessments will be carried out on the project adopted after FY2018 under Specially Promoted Research and Scientific Research (S).

※4 Interim assessments may be held when judged necessary.

System Enhancements to Facilitate Grant-in-Aid Usage

(1) Introduction of Multi-Year Fund (FY 2011)-

Before FY2011, Grants-in-Aid were issued on a single fiscal year basis, requiring researchers to divide their research plans into one-year segments when applying for a grant. Now, this Multi-year Fund gives them the flexible use of their grants over the entire duration of multi-year projects.

*Projects covered under the Multi-Year Fund in FY 2019.

- Research projects adopted under Scientific Research (C), Challenging Research (Exploratory), Young Scientists (B), Early-Career Scientists, Research Activity Start-up, Special Purposes, Scientific Research (B) (application section “Generative Research Fields”), Fund for the Promotion of Joint International Research (Fostering Joint International Research (A / B), Home-Returning Researcher Development Research, International Activities Supporting Group).

- By requesting funding scheduled for the next fiscal year(s) to be carried forward, researchers can make optimal use of their grants in pace with progress of their work.
- The use of grant funds may be carried over into the next fiscal year without having to do advanced processing. Researchers can advance their work by carrying unused funds over into the next fiscal year(s).
- Researchers can advance their work without having to do end-of-year accounting. As this system eliminates the fiscal-year framework, orders placed for goods or services in one year may be delivered in the next.

(2) Establishment of Adjustment Fund (FY 2013)-

Within the Grants-in-Aid program, an Adjustment Fund was established in FY 2013 and revised in FY 2014. Its purpose is to make the funding of projects that do not fall under the program’s multi-year fund more flexible.

* Projects covered under the Adjustment Fund in FY2019.

- Research projects adopted under Specially Promoted Research, Scientific Research on Innovative Areas, Scientific Research (S / A), Scientific Research (B) (excluding the application section “Generative Research Fields”), Challenging Research (Pioneering), Young Scientists (A), JSPS Fellows.

- When researchers with projects under the above-listed categories wish to use grant funds allocated for out years, they may use this Adjustment Fund to move forward funds for use in the current fiscal year.
- The Adjustment Fund may also be used to carry over grant funds into the next fiscal year. With this system, unused funds in one fiscal year are returned temporarily to the Treasury and then redeemed from the next year’s Adjustment Fund in an amount of up to 100%.

Image of (1) Multi-year Fund grant usage

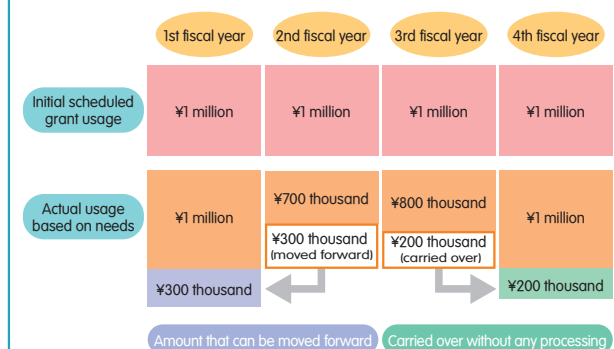
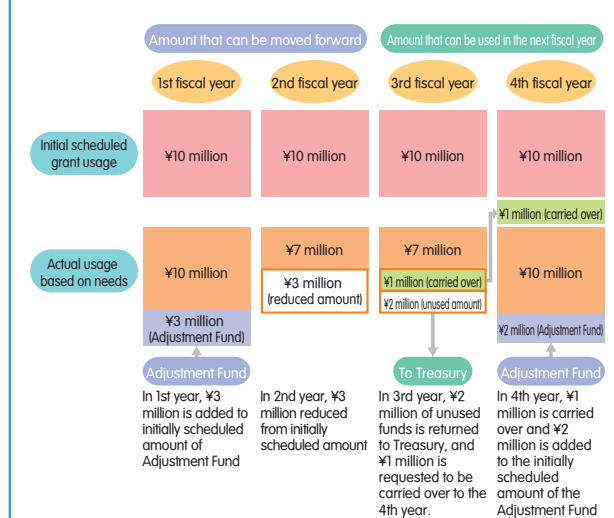


Image of (2) Adjustment Fund grant usage



Other System Enhancements

(1) Purchasing Joint-Use Equipment with a Mixture of Grant-in-Aid Funds

From FY 2012, the program has greatly relaxed its restriction on Grants-in-Aid disbursed to different projects to be used in purchasing joint-use equipment. This was done to increase the efficiency of research grant utilization and to promote the joint usage of equipment and facilities.

The ability given researchers by the system to pool their funds in purchasing highly specific, expensive equipment that would be difficult for one of them to afford gives researchers a greater degree of freedom in the use of their research funds. Allowing research this option increases their prospects of making greater research advances.

In addition, the joint purchase of commonly used equipment with mixed funds from Grants-in-Aid and other competitive systems is permitted as long as such joint usage does not impede the implementations of the Grant-in-Aid funded research. For details, please refer to MEXT's webpage.

https://www.mext.go.jp/a_menu/shinkou/torikumi/1337578.htm

(2) Measures to Prevent the Misuse of Grants-in-Aid

Under the KAKENHI, measures are taken to widely circulate rules for preventing the improper grant spending and research misconduct in the carrying out of research activities. For this purpose, a handbook is distributed and briefings are held.

Requests are also made to research institutions to establish systems needed to prevent misconduct.

In FY 2014, an electronic application was installed that requires grant applicants to pledge that they will use their grants both properly and effectively.

A function has been newly introduced into the electronic application system that requires the applicant to confirm a minimum number of items required to conduct KAKENHI-funded research before s/he makes a formal application for grant delivery. From FY 2015, research institutions have been required to hold research ethics education courses for researchers who conduct activities using KAKENHI funds, and rules promulgated that require researchers to take those courses.

In such ways, the KAKENHI Program is working to promote the proper and equitable use of Grant-in-Aid funds when conducting research activities.

2 Advancement of Globalized Joint Research

(1) Supporting Bilateral Collaboration with Partner Countries/Areas

Purpose

By supporting international joint research projects and seminars, researcher exchanges, and fostering young researchers, JSPS forms sustainable networks driven by bilateral research teams formed via exchanges among individual researchers.

Features

By supporting joint research projects and seminars for researchers of Japan and other countries in

cooperation with counterpart funding agencies, JSPS builds research platforms that place all participants on an equal footing. Furthermore, JSPS provides support to Japanese researchers via programs that allow them to carry out joint research projects and seminars with countries/areas that do not have cooperative agreements with JSPS and to respond to changing global trends in scientific research collaboration. This support works to meet the needs that emerging nations and countries in Asia and Africa have for stronger scientific exchange while advancing JSPS's cooperation with new science-promotion organizations.

Programs

① Bilateral Collaborations

(Joint Research Projects and Seminars)

JSPS supports the implementation of joint research and seminars carried out via cooperation with researchers from other countries. Project proposals are solicited via the following two program formats.

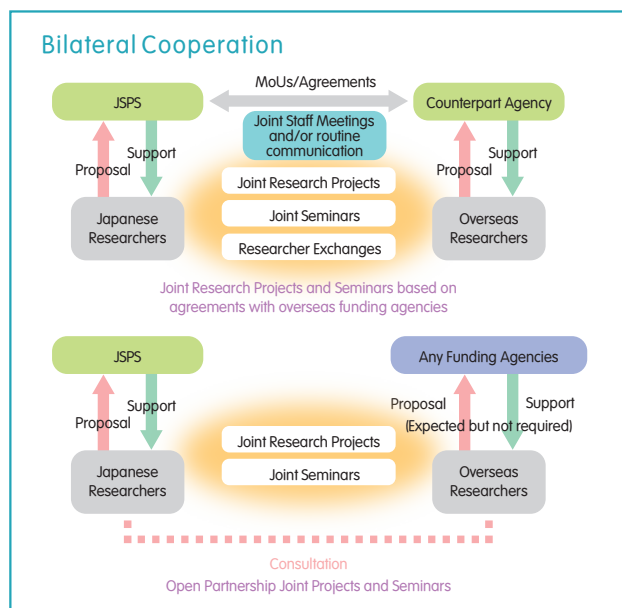
- Joint Research Projects and Seminars in cooperation with countries where counterpart funding agencies have bilateral agreements with JSPS
- Open Partnership Joint Research Projects and Seminars with all countries that have diplomatic relations with Japan and with Taiwan and Palestine

Website:

<https://www.jsps.go.jp/english/e-bilat/index.html>

	Joint Research Projects	Joint Seminars
Funding amount	¥1-3 million per year	¥1.2-2.5 million per seminar
Funding period	1-3 years	up to one week in duration

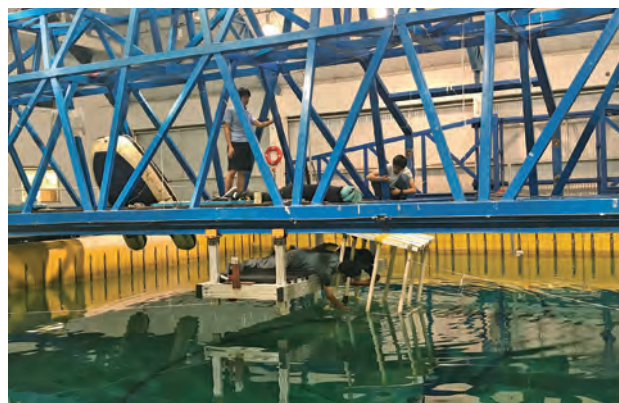
*Funding Amount and period may differ by countries or counterpart agencies.



JSPS-NACOSTI (Kenya) Joint Research Project
(Prof. KANEKO Satoshi, Nagasaki University)



Open Partnership Joint Research Project between Japan and Australia
(Prof. TAKAHASHI Keitaro, Kumamoto University)



JSPS-CAPES (Brazil) Joint Research Project
(Prof. SUZUKI Hideyuki, Tokyo University)

② Researcher Exchanges (Sending and Receiving)

Support is given for visits by researchers to each other's countries and attendant activities/exchanges with an eye to building an infrastructure for the sustainable development of networking and joint research among researchers from Japan and other countries.

Website:

<https://www.jsps.go.jp/english/e-bilat/researcher.html>

Funding	International airfare and maintenance allowance
Period	6 months to 2 years

*Support may differ by countries or counterpart agencies.

*Japanese researchers wishing to go abroad apply to JSPS, while overseas researchers wishing to come to Japan apply to JSPS counterpart agencies in their countries.

③ Japanese-German Graduate Externship

Based on an agreement between JSPS and German Research Foundation (DFG), support is given for implementing mutual graduate curricula established between Japanese and German universities for the purpose of exchanging doctoral students, young researchers including postdocs, and teaching professionals. In both countries, the doctoral students receive joint guidance in conducting their research and preparing their dissertations.

Website:

https://www.jsps.go.jp/english/e-jg_externship/index.html

(2) Promoting International Joint Research Programs

① International Joint Research Programs

Purpose

In an effort to respond to global developments in scientific research, JSPS works in cooperation with counterpart agencies to promote collaboration in joint research between excellent researchers in Japanese universities/research institutes and their counterparts in other countries. This program is also

implemented to enhance and expand training opportunities for young researchers.

Features

Supported fields vary depending on each country's counterpart agencies and application categories. With some counterpart agencies, we have adopted a new framework based on the "Lead Agency Method" in which one agency leads the screening.

Programs

The six programs (see the Table in P.13) are being carried out under the International Joint Research Programs.

Website

<https://www.jsps.go.jp/j-bottom/index.html>

② KAKENHI (Fund for the Promotion of Joint International Research)

Programs

We support academic research across countries through the "Fund for the Promotion of Joint International Research" in KAKENHI.

Fostering Joint International Research (A)

Researchers selected for KAKENHI conduct joint international research at overseas university and research facilities for a period of 6 months to 1 year. We aim to contribute to the cultivation of independent researchers who can be active internationally, and to significantly develop KAKENHI research programs (up to 12 million yen).

*"Fostering Joint International Research" was renamed "Fostering Joint International Research (A)" from call for proposals in FY2018 following the establishment of "Fostering Joint International Research (B)".

Fostering Joint International Research (B)

This program is for Joint International Research between multiple Japanese researchers and researcher who belongs to overseas research

International Joint Research Programs

Program name	Country/ Corresponding Agency	Subject fields	Funding	Support	Project period
Partnerships for International Research and Education (PIRE Program)	US/NSF	Humanities, social science, natural sciences (fields mutually selected by JSPS and NSF)	Up to ¥10 million a year per project	Research grant Airfare Stipend Personnel cost	Up to 5 years
Open Research for Social Science (ORA Program)	France/ANR; Germany/DFG; UK/ESRC; Netherlands/NWO; Canada/SSHRC	Social sciences			2~3 years
Joint Research Program with SNSF (JRPs)	Switzerland/SNSF	FY2016: Humanities, social sciences, biology, medicine/dentistry FY2019: Mathematical/physical sciences, chemistry, engineering, informatics, agriculture/environmental science			3 years
Joint Research Program with Germany (JRPs-LEAD with DFG)	Germany/DFG	FY2018: Geoscience [*]			
Joint Research Program with UK (JRPs-LEAD with UKRI)	UK/UKRI	FY2018: Life science, environmental science [*]			
Joint Research Program with China (JRP with NSFC)	China/NSFC	FY2019: Sustainable Remediation [*]			5 years

※ Subject fields vary depending on each call

institution. Along with the development of academic research, it aims to build and strengthen the foundation of international joint research and to cultivate researchers who can be active internationally. (3 to 6 years, up to 20 million yen)

Home-Returning Researcher Development Research

This program is for research that is expected to take place after Japanese researchers return from overseas. (up to 3 years, up to 50 million yen)

Website

https://www.jsps.go.jp/j-grantsinaid/35_kokusai/index.html

(3) Supporting the Establishment of Research

Exchange Hubs

Support is provided for the creation of high world-standard/medium-scale education and research hubs in Japan, used by Japanese scientific research institutions to carry out large-scale multinational research collaboration with similar hubs in other countries. One important function of these collaborations is to provide a matrix for promising young researchers to build their own networks, while

giving them encouragement to participate fully in research activities.

① Core-to-Core Program

Aimed at issues considered in Japan to be cutting-edge and internationally important and at regional issues to whose solution Japan can contribute, this program supports collaborative research between core research and education institutes in Japan and other countries around the world, carried out in such formats as joint research projects, seminars, and researcher exchanges.

Core-to-Core Program is implemented in two components: “A. Advanced Research Networks” and “B. Asia-Africa Science Platforms.”

Website:

<https://www.jsps.go.jp/english/e-c2c/index.html>

A. Advanced Research Networks

Collaborative ties are established between top world-class research centers in Japan that partner over the long term with core research institutions around the world in advancing research that is

considered leading-edge in Japan, while fostering the next generations of trailblazing young researchers.

TypeA. Advanced Research Networks require counterpart research organizations to secure matching funds at a level needed to reciprocally conduct joint research, joint seminar, and the research exchange equivalent to JSPS's grant.

Target research	Research topics considered to be cutting-edge and internationally important in Japan
Target countries	Two or more countries having diplomatic relations with Japan
Project funding	Up to ¥18 million/year
Project period	Up to 5 years

B. Asia-Africa Science Platforms

With an aim of contributing to the solution of problems prevailing in the Asia and African regions, Japanese universities and research institutes take the lead in carrying out research collaborations with research and education institutions in counterpart countries. By establishing sustainable collaborative relationships with the counterpart institutions, medium-scale research-collaboration hubs are created in various targeted fields within Asia and Africa, which also foster the young researchers who will mainstay future S&T advances in their regions. In building scientific infrastructures in Asia and Africa, counterpart institutions in the regions are not necessarily required to secure matching funds when carrying out collaborative research with Japanese universities except China, Korea, Singapore and Taiwan, which are needed securing matching funds.

Target research	Research topics of special importance or significance to Asia and/or Africa and considered to be of high priority within Japan
Target countries	Two or more Asian and/or African countries having diplomatic relations with Japan
Project funding	Up to ¥8 million/year
Project period	Up to 3 years

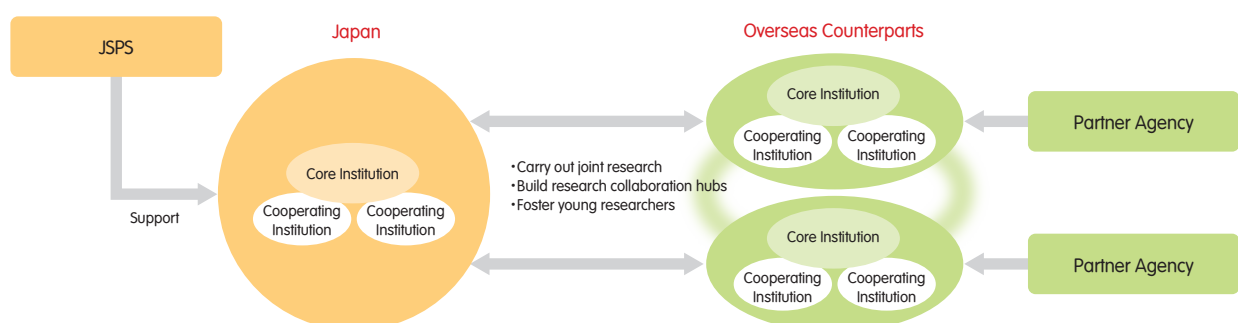


ASEAN - Japan Meeting Point of Collaboration by Stakeholders and Researchers for Reducing Environmental Problems in Indonesia (December 2018)
(Photo by Ehime University, Faculty of Collaborative Regional Innovation)



Seminar by related parties at BIUST: Botswana office of Akita University. (June 2018)
(Photo by Akita University)

Core-to-Core Program





Field Survey of Transdisciplinary Study in Thailand (February 2019)
(Photo by Kawasaki University of Medical Welfare, Department of Health and Sports science)

② A3 Foresight Program

JSPS, the National Research Foundation of Korea (NRF) and the National Natural Science Foundation of China (NSFC) work as a consortium in supporting trilateral research projects that advance research on both a global level and on common regional issues while working to foster talented young researchers. Ultimately, the program aims to build world-standard research and education hubs with Japan, China and Korea at their core in the Asian region. The research theme for each fiscal year is decided via consultation among the three agencies in the previous year's A-HORCs meeting. (page 51)

In the following year, a Northeastern Asian Symposium is held on the same theme. Assembling researchers from the three countries, it provides a platform for them to share information on the latest advances in the subject field, while building networks over which to carry out new international research initiatives.

Website:

<https://www.jsps.go.jp/english/e-foresight/index.html>

JSPS A3 Foresight Program

Themes	FY2020: IoT with Intelligence FY2019: Nuclear Physics in the 21st Century FY2018: Emerging Materials Innovation FY2017: Molecular Imaging-based Precision Medicine FY2016: Chemical Biology FY2015: Autophagy: from Basic to Medicine FY2014: Method and Modeling for High Performance Scientific Computing FY2013: Biomaterial and Nano-Bio Technology FY2012: Plasma Physics FY2011: ICT: Next-generation Network and Network Security FY2010: Renewable Energy FY2009: Cancer Epigenetics FY2008: Advanced Materials FY2007: Climate Change FY2006: Biotechnology FY2005: Nanoscience and Nanotechnology
Project funding	Up to ¥50 million/5 years
Project period	Up to 5 years



The 2nd A3 Roundtable Meeting on CPRH (Hangzhou, China) : Group shot
(Photo by Tohoku University, Graduate School of Science)



'One month Exchange Program' Chinese DC Students @ Kyoto University
(Photo by Tohoku University, Graduate School of Science)

3 Implementation of Research on Applied Scholarship

Topic-Setting Program to Advance Cutting-Edge Humanities and Social Sciences Research

Purpose

This program has been established to contribute to advancing the Humanities and Social Sciences in three areas: (1) Joint research that will yield breakthroughs through close linkages with other fields of science; (2) Joint research aimed at making societal contributions; (3) International joint research that contributes to advancing the Humanities and Social Sciences in accordance with the report “Promotion of the Humanities and Social Sciences Addressing Risk Society and Matured Intellectual Society,” issued by the Council for Science and Technology, Subdivision on Science in July 2012.

Contents

This program is carried out in 3 programs: (1) Area cultivation, (2) Responding to real society and (3) Global initiatives. The Program Committee sets tasks and select research themes related to those tasks. Research proposals fall into two categories designed to promote cutting-edge joint research: topic-setting research themes selected by the Program Committee, and themes proposed by the researchers themselves.

(1) Area Cultivation

Sought are research topics devised by researchers from different scientific fields that can spur unexpected jumps to new research domains and more innovative yet durable methodologies.

- Allocation
 - Topic-setting research: ¥10 million/year
 - Openly recruited research: ¥5 million/year

(2) Responding to Real Society

Sought is close collaboration between researchers and working level specialists from the planning and implementation of the research to the dissemination of its results. This linkage with the working level specialists who bridge the research and its application to society is essential in advancing research that makes real societal contributions.

- Allocation
 - Topic-setting research: ¥10 million/year
 - Openly recruited research: ¥5 million/year

(3) Global Initiatives

Sought are dialogue and interaction between Japanese and overseas researchers and the generation of globally significant results through the advancement of international joint researcher across diverse fields of the humanities and social sciences and the building of robust international networks.

- Allocation
 - Topic-setting research: ¥20 million/year
 - Openly recruited research: ¥10 million/year

Budget

FY2019: ¥0.18 billion

Website

<https://www.jsps.go.jp/english/e-kadai/>

Selected Projects under "Global Initiatives" in FY2016

Topic-setting research (1 project)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Interdisciplinary research on the exclusivism and democracy in the globalized society	Interdisciplinary research on the function of national histories and collective memories for the democracy in the globalized society	HASHIMOTO Nobuya	Professor, School of Humanities, Kwansei Gakuin University
Openly recruited research (6 projects)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Interdisciplinary research on the exclusivism and democracy in the globalized society	Designing Social Infrastructure for Multicultural Democracy: International Joint Research for Institutions, Structures, and Norms	OGA Toru	Associate Professor, Faculty of Law, Kyushu University
	Can democratic states adequately respond to the challenges of racism in the age of refugee crisis?: A comparative research	IIDA Fumio	Professor, Graduate School of Law, Kobe University
Comparative Studies of Humanities and Social Sciences Education Corresponding to Globalization	Comparative Research on the Innovation of Humanities and Social Sciences Education in the Era of Globalization	SATO Manabu	Professor, Faculty of Letters, Gakushuin University
	International Comparative Research on How to Adapt Nation-State Oriented University History Education to the Era of Globalization	TSUTSUMI Kazuaki	Professor, Graduate School of Letters, Osaka University
Global Humanities: Exploring the Universality of Japanese Literature, Art, and Thought	The Universal Values of E-monogatari (Illustrated Tales) Media Designated as Cultural Heritage: from the perspective of International Research	ABE Yasuro	Chair, Professor, Research Center for Cultural Heritage & Texts, Nagoya University
	The Cosmos of Dōgen: From Perspectives of Analytic Asian Philosophy	DEGUCHI Yasuo	Professor, Graduate School of Letters, Kyoto University

(As of April 2019)

Selected Projects under "Area Cultivation" in FY2017

Openly recruited research (13 projects)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Research Area A: "Cognitive turn" and the transformation of identities	Internally superimposed selves: Developing a new research in collaboration between philosophy and empirical science	TAKEZAWA Masanori	Associate Professor, Graduate School of Letters, Hokkaido University
	Exploration of "humanities and social science for symbiotic society" driven by neuropsychology of hyper brain functions	KOYAMA Shinichi	Professor, Faculty of Art and Design, University of Tsukuba
	Understanding of individual mental identity using the multidimensional and multidisciplinary cognitive behavior analysis	ICHIKAWA Makoto	Professor, Graduate School of Humanities, Chiba University
	Emergence and sharing of mentality based on principle of predictive coding: An integrated study of cognitive science, humanities, and informatics	OHIRA Hideki	Professor, Graduate School of Informatics, Nagoya University
	Wisdom of crowds as emergent intelligence: Social and personal innovation by group decision making	SAIKI Jun	Professor, Graduate School of Human and Environmental Studies, Kyoto University
Research Area B: The concept of the 'responsible research and innovation', and theoretical and practical deepening of 'science for society'	Advanced and integrated research about social implementation of bio and environmental technologies-the vision and trial for the participation in 21st century	MATSUDA Tsuyoshi	Professor, Graduate school of Humanities, Kobe University
	Theoretical and Practical Study for new RRI Framework: a study series of education, evaluation, and politics	SHINEHA Ryuma	Assistant Professor, Faculty of Arts and Literatures, Seijo University
Research Area C: Technological innovation based on Japanese aesthetics and sensibilities	Interdisciplinary Research on the Collaborative Constructions between Arts and Audiences: Analyzing Resonance of Light, Sound, and Embodiment in Sociology, Aesthetics, and Engineering	YAMAZAKI Keiichi	Professor, Graduate School of Humanities and Social Sciences, Saitama University
	Resonating space, appearing aesthetics	FURUKAWA Kiyoshi	Professor, Fine-Art Department Inter-Media Art, Tokyo University of the Arts
	The Study of UX Design for Advanced Robotics by using Methods and Contents of Japanese Traditional Performing Arts	NAKAGAWA Shinobu	Professor, Osaka University of Arts
Research Area D: The cultural and social role of SHIKOJIN	Should we question today the last eating and drinking culture	ITO Nobuhiro	Assistant Professor, Graduate School of Humanities, Nagoya University
	What is Shikoujin? An interdisciplinary research and development of literature database on Shikoujin	MATSUBARA Toyohiko	Professor, College of Economics, Ritsumeikan University
New advances in humanities and social sciences using analytical methods incorporating praxeology, cognitive science, and neural science	Understanding the genetic foundations of cultural variation in cooperation with evidence from social psychology, neuroscience, and endocrinology	ISHII Keiko	Associate Professor, Graduate School of Informatics, Nagoya University

※ No topic-setting research themes selected this fiscal year

(As of April 2019)

(For reference) Selected projects in FY2014

Topic-setting research: 2 projects

Openly recruited research: 10 projects

New Extension

Selected Projects under "Responding to Real Society" in FY2018

Openly recruited research(New: 8projects,Extension: 0project)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Empirical research for designing policies that take ethical perspectives (such as intergenerational equity, sustainability, and social safety) into consideration	Interfamilial Succession or M&A? A Survey of Family Firms in Okinawa	UCHIDA Ichihiro	Professor, Faculty of Economics, Aichi University
	Creating fundamental concepts of society and value based Technology and Brain science	YOSHIDA Takako	Associate Professor, School of Engineering, Tokyo Institute of Technology
Study on Achieving Social Diversity for LGBT and Sexual Minorities	Building the support system to make a family of LGBT parties by the assisted reproductive technology and the adoption	NINOMIYA Shuhei	Professor, College of law, Ritsumeikan University
Reconstructing multicultural communities in a depopulating society	Shrinking Strategy with Dignity for Rehabilitation and Revitalization of Community	ATSUMI Tomohide	Professor, Graduate School of Human Sciences, Osaka University
	Unveiling the charm of Japanese mountainous towns that attract and support population inflow: A transdisciplinary action research in Yamanashi prefecture	TAKAHASHI Yasuo	Researcher, Natural Resources and Ecosystem Services Area, Institute for Global Environmental Strategies
	Multiculturalism through the dynamics of practices and policy: Osaka's model of participation of migrants and its policy proposal	TAKAYA Sachi	Associate Professor, Graduate School of Human Sciences, Osaka University
	Heritage and Diversity in Local Communities: Perspectives from the Frontier of Demographic Change	KUMAGAI Yoshitaka	Director, Institute for Asian Studies and Regional Collaboration, Akita International University
Interdisciplinary research on forgetting with construction of social corresponding base	Cognitive / economical evaluations on web-systems including human memory characteristics	MORITA Jyunya	Associate Professor, Faculty of Informatics, Shizuoka University

(As of April 2019)

Program for Constructing Data Infrastructure for the Humanities and Social Sciences

Purpose

This program aims to promote joint researches domestically and internationally, thereby promoting humanities and social sciences through building a comprehensive system that researchers can utilize to share data on humanities and social sciences research across disciplines and countries while fostering a shared culture.

Contents

This program is conducted through collaboration between the JSPS and hub institutions selected by call for participation over a five year period from FY2018.

Hub institutions implement the following programs as an important base for a data infrastructure that can be widely used as a research foundation in humanities and social sciences.

- Strengthening of data archiving functions (Sharing)
- Strengthening of overseas dissemination and collaboration functions (Internationalization)
- Development of time series-based connections and relationships between the data (Consolidation)

JSPS will also implement the following programs through strong collaboration with hub institutions in order to build a cross-discipline data utilization system.

- Formulate a common guideline on data release, use, and rights
- Draw up an interdisciplinary and comprehensive data catalog

Strengthening Center (research institutes) Functions

University	Research Institutes
Osaka University of Commerce	JGSS Research Center
Keio University	Panel Data Research Center
The University of Tokyo	Center for Social Research and Data Archives, Institute of Social Science
Hitotsubashi University	Institute of Economic Research

Budget

FY2019: ¥0.20 billion

Website

<https://www.jsps.go.jp/english/e-di/index.html>

Fostering the Next Generation of Researchers to Pioneer Knowledge

1 Securing an Environment Devoted to Independent Research

1) Research Fellowships for Young Scientists

Purpose

Awarded to excellent young researchers in Japan, these fellowships offer the fellows an opportunity to focus on a freely chosen research topic based on their own innovative ideas. Ultimately, the program works to foster and secure excellent researchers.

Features

(1) Core program for fostering young researchers

This fellowship program is Japan's core program for cultivating young researchers here in Japan, with 5,446 participating fellows in FY2019.

(2) Values the independence of young researchers

Excellent young researchers are allowed to focus on a freely selected research topic and at an independently chosen research institution.

(3) Supplying Monthly stipend and Disbursing Grants-in-Aid for Scientific Research

Funding is provided to encourage and support doctoral students and postdoctoral researchers under JSPS's Research Fellowships for Young Scientists. These researchers may also apply for a Grant-in-Aid for JSPS Fellows.

(4) Leave for child birth and infant nursing

Fellows who have to suspend their research for child birth and infant nursing are offered a path back into the laboratory. It is possible for them to work short hours while on such leave.

Framework

(1) Screening

A fair and transparent screening process is carried out by JSPS's Screening Committee for Young Researcher Fellowships, comprising frontline Japanese researchers.

(2) Target fields

Young researchers in all fields of the humanities, social sciences and natural sciences are eligible to apply. When recognized as necessary to advancing their research, they may spend part of their tenure at another research institution, including one overseas.

(3) Fellowship categories

- This program offers four categories of fellowships:
Doctoral Course Students (DC)
Postdoctoral Fellow (PD)
Restart Postdoctoral Fellow (RPD)
Superlative Postdoctoral Fellow (SPD)
- Especially gifted researchers are selected from PD candidates to receive SPD fellowships.
- Outstanding young researchers may be given a

Fellowship categories

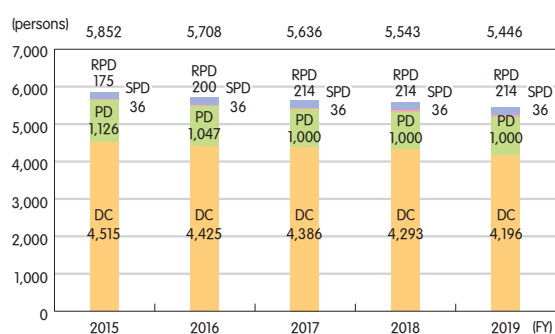
Categories	Eligibility	Tenure	Monthly stipend (FY 2019)	Research grant (Grant-in-Aid for JSPS Fellows)
DC	<ul style="list-style-type: none"> Enrolled in doctoral course DC1: Enrolled in first year of doctoral course DC2: Enrolled in second year or higher of doctoral course 	DC1: 3 years DC2: 2 years	¥200,000	Up to ¥1.5 million a year
PD	<ul style="list-style-type: none"> Hold a doctoral degree Within 5 years after receiving doctoral degree Transfer to another host institution that is different from the university where they were enrolled in a doctoral course 	3 years	¥362,000	
RPD	<ul style="list-style-type: none"> Hold a doctoral degree May suspend research activities for three months or longer for childbirth and/or child raising (1) Researcher who is raising a pre-school child (2) Researcher who has given childbirth or cared for a child illness or disorder within past five years. No age or gender limitations 	3 years	¥362,000	
SPD	<ul style="list-style-type: none"> Hold a doctoral degree Excellent researchers chosen from PD candidates 	3 years	¥446,000	Up to ¥3 million a year

Restart Postdoc (RPD) Fellowship after suspending their research activities for the purpose of childbirth and/or infant nursing.

Budget

FY2019: ¥15.63 billion

Total Number of Fellowships



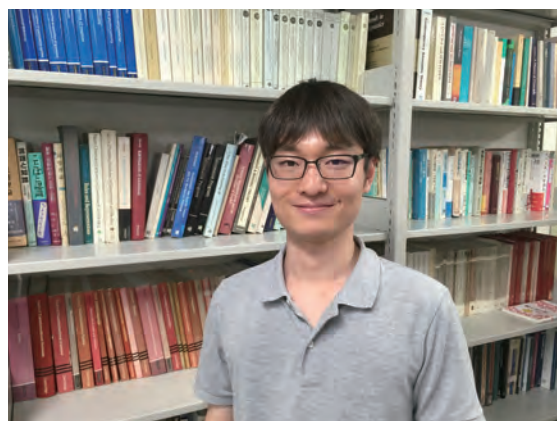
Selection ratios(%)

	FY2015	FY2016	FY2017	FY2018	FY2019
DC1	21.9	21.8	20.7	20.6	19.2
DC2	21.9	21.8	20.5	20.3	19.8
PD・SPD	11.2	12.5	13.2	15.7	17.3
RPD	26.0	28.2	27.3	26.1	24.1

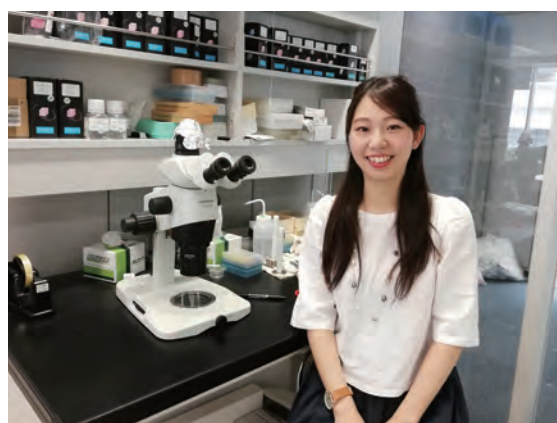
FY2019 RPDs include persons scheduled to be selected.

Website

<https://www.jsps.go.jp/english/e-pd/index.html>



MORIYAMA Kazushige [DC, Kobe University]



SHINODA Saori [PD, Kyoto Sangyo University]

Restart Postdoc (RPD) Fellowship

To support the raising of children and create an environment of equal gender participation within Japan's research community, the Restart Postdoc (RPD) Fellowship was established. It provides an avenue, including financial support, for excellent young researchers to transition smoothly back into the laboratory after suspending their research for childbearing and/or infant nursing.

Target fields: All fields of the humanities, social sciences and natural sciences

Number of new awardees per year: About 75

Eligibility

- Postdoctoral researchers who have within the past 5 years suspended their research for a period of 3 months or longer for the purpose of

child birth and infant nursing.

- No restriction on age or gender.

Tenure: 3 years

Monthly stipend (FY2019): ¥362,000

※For details, see application guidelines



YAMASHITA Momo [RPD, National Museum of Nature and Science]

2 Fostering Internationally Vibrant Researchers

(1) Dispatching Young Researchers Abroad

① Overseas Research Fellowships

Purpose

To foster highly capable researchers with wide international perspectives, this fellowship gives excellent young Japanese researchers an opportunity to carry out long-term research at an overseas university or research institution. Overseas Research Fellowships – Restart Research Abroad (RRA) program gives young Japanese researchers who have suspended their research activities due to life event (e. g. marriage, childbirth, child raising, nursing, caregiving) eligibility to apply for an RRA fellowship.

Features

(1) Long-term overseas research of young researchers
We offer research and exchange opportunities with overseas researchers at prominent research institutions abroad.

(2) Leave for Childbirth and infant nursing
Fellows are allowed to take leave for childbirth and infant nursing and then return to their fellowships.



MORITA Maho,
Overseas Research
Fellow
(The University of Utah,
USA)

YASHIRO Toshihisa,
Overseas Research
Fellow
(The University of
Sydney, Australia)



Framework

(1) Financial support

Fellows receive round-trip airfare, stipend and

research grant (approximately ¥4.5 million – ¥6.2 million/year depending on destination). Under the RRA program round trip airfare is also provided for accompanying children along with a child allowance (10% of stipend and research grant for each child).

(2) Period of stay: 2 years

(3) Screening

JSPS's Screening Committee for Young Researcher Fellowships, composed of front-line researchers in our country, conducts a fair and highly transparent review.

(4) Target fields

All fields of the humanities, social science, and natural science are eligible.

(5) Eligibility

Those holding a doctorate and attached as researchers at university or equivalent academic research institutes in Japan or those wishing to become researchers in Japan.

Budget

FY2019: ¥2.28 billion

Website

<https://www.jsps.go.jp/j-ab/index.html>

Destination and Number of Researchers Dispatched to Each (FY 2018)

USA	207	Sweden	4	China	1
U.K.	42	Denmark	4	Kazakhstan	1
Germany	38	Singapore	2	Finland	1
France	22	Spain	2	Czech	1
Canada	17	Taiwan	2	Portugal	1
Switzerland	10	Israel	2	Chile	1
Italy	8	India	2	Turkey	1
Netherlands	5	New Zealand	2	Poland	1
Australia	4	Mexico	2	Total	388
Austria	4	Belgium	1		

Selection ratios (%) for Overseas Research Fellowships

FY2015	FY2016	FY2017	FY2018	FY2019
17.5	19.3	19.5	22.3	23.8

Selected RRA fellows are included in the ratios from FY2016. Including selections scheduled for FY2019.

② Cross-border Postdoctoral Fellowship

Purpose

In FY 2019, a new “Cross-border Postdoctoral Fellowship (CPD)” was established for the purpose of providing excellent young researchers with an opportunity to concentrate on their research for a long period at an overseas university or research institution.

*The abbreviation CPD stands for the cross-border research activities advanced by postdoctoral researchers.

Features

- A 3-year overseas research stay during the fellowship period.
- Fellows feedback the content of their overseas experience to the research institutions in Japan.

Contents

(1) Target fields

All fields of the humanities, social science, and natural science are eligible.

(2) Eligibility

Researchers who have applied for a Postdoctoral Fellowship (PD) and been accepted for one or for a Superlative Postdoctoral Fellowship (SPD).

(3) Number of new awardee per year

About 10

(4) Tenure

Five years (Relocate during the fellowship's first year to another country for a 3-year research stay)

(5) Financial Support

Monthly allowance of ¥446,000 per month

Roundtrip airfare

Grant-in-Aid for Scientific Research (Grant-in-Aid for JSPS Fellows)

*For details on the content of this fellowship, please refer to the Application Guidelines.

Budget

FY2019: ¥0.11 billion

Website

<https://www.jsps.go.jp/j-pd/index.html>

③ Overseas Challenge Program for Young Researchers

Purpose

This program gives doctoral students an opportunity to go overseas to challenge a new research environment, one in which they engage in joint research with researchers in the host country. Hence, the program contributes to the fostering of young researchers who possess abundant international experience and who can be expected to play leading roles in the wider scientific arena.

Features

- Aimed at doctoral students who have not experienced overseas stays for research.
- Period of stay can be freely set between 3 months and 1 year.

Contents

(1) Financial support

Round trip airfare, stipend (¥1 million – ¥1.4 million depending on destination, regardless of period of stay), research expenses (up to ¥200,000)

(2) Period of stay: 3 months – 1 year

(3) Target fields

All fields of the humanities, social science, and natural science are eligible.

(4) Eligibility

Doctoral students at Japanese universities who have not experienced a longer than 3-month overseas stay for research.

Budget

FY2019: ¥0.28 billion

Website

<https://www.jsps.go.jp/j-abc/index.html>

Destination and Number of Researchers Dispatched to Each (FY 2018)

USA	77	Sweden	3	Zambia	1
Germany	28	Russia	3	Tanzania	1
U.K.	23	China	3	Denmark	1
France	16	New Zealand	2	Turkey	1
Canada	12	Norway	2	Finland	1
Australia	10	Belgium	2	Vietnam	1
Switzerland	7	Israel	1	Malaysia	1
Italy	6	Indonesia	1	South Africa	1
Netherlands	5	Austria	1	Total	220
Spain	4	Cyprus	1		
Taiwan	4	Greece	1		

Selection ratios (%) for Overseas Research Fellowships

FY	Selection Ratios
2017	42.4
2018	51.4
2019	1st 41.9
	2nd 21.6

Including selections scheduled for FY2019.

2020 Overseas Challenge Program for Young Researchers Flyer



④ Program for Fostering Globally Talented Researchers

Purpose

This program supports the dispatch and hosting of researchers between Japanese and overseas universities / research institutions in order to contribute to the fostering young researchers who will form the core of future international research networks.

Features

This program supports international joint research of universities and research institutes, and their systematic efforts to dispatch young researchers abroad and to invite researchers from overseas. As a rule, dispatched and invited researchers under this program are associate and assistant professors, or researchers of equivalent position.

Contents

(1) Financial Support

- The participants receive roundtrip air fare and maintenance allowance during their stays in the counterpart country.
- Grant for their international joint research
- Up to ¥40 million/year/project (in the first year, up to ¥25 million)

(2) Research Fields

All fields of the humanities, social sciences and natural sciences

(3) Eligible Institutions

- ① Japanese universities, inter-university research institutes, junior colleges, colleges of technology
- ② National research and development agencies, independent administrative institutions, government affiliated institutions, public interest associations and foundations, incorporated associations and foundations, specified non-profit organizations

③ Private research institutes

* ② and ③ must be eligible to apply for Grants-in-Aid for Scientific Research (MEXT KAKENHI Handling Act 2).

(4) Project Duration

3 years (including “Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers” support period)

(5) Young Researcher Dispatch Eligibility and Period of Stay

- Researchers attached to Japanese universities and research institutes, and their representative or cooperative agencies, in principle equivalent to assistant professors, associate professors, or full-time lecturers. Postdoctoral researchers or equivalents may also participate if necessitated by the research plan.

- Generally longer than 1 year (Multiple visits totaling more than one year are possible; however each visit should exceed 3 months).

(6) Invited Researcher Eligibility and Period of Stay

- Researchers attached to overseas research institutes and cooperative agencies, in principle equivalent to assistant professors, associate professors, or full-time lecturers. Postdoctoral researchers or equivalents may also participate if necessitated by the research plan.
- No minimum limit on period of stay.

Budget

FY2019: ¥0.39 billion

Website

<https://www.jsps.go.jp/j-kokusaikatsuyaku/gaiyou.html>

New selections by field

Research Area	FY2015		FY2016		FY2017	
	Selected	Applied	Selected	Applied	Selected	Applied
Humanities and Social Sciences	1	10	2	9	2	7
Mathematics; Physical Sciences; Chemistry; Engineering Sciences	5	35	4	30	6	23
Biological Sciences; Agricultural Sciences; Medical, Dental, Pharmaceutical Sciences	4	31	4	30	3	11
Integrated Disciplines	2	15	2	15	1	6
Total	12	91	12	84	12	47

Number of programs supported by fiscal year

() Number of new Projects selected the year

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Programs	84 (28)	80 (24)	64 (12)	48 (12)	36 (12)	24 (0)	12 (0)

Total number of dispatches

Region	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Asia	36	118	55	41	20	14	284
Oceania	7	9	28	28	18	25	115
Africa	11	34	21	25	10	0	101
Europe	209	408	401	259	132	96	1,505
Russia & NIS	11	11	1	1	0	1	25
North America	111	196	247	195	86	79	914
Central/ South America	2	6	5	1	2	3	19
Total	387	782	758	550	268	218	2,963

Total number of researchers invited

Region	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Asia	27	49	62	35	18	191
Oceania	1	8	19	10	11	49
Africa	0	5	0	3	0	8
Europe	34	103	148	107	50	442
Russia & NIS	4	3	5	0	0	12
North America	22	52	84	58	33	249
Central/ South America	0	0	2	2	1	5
Total	88	220	320	215	113	956

(2) Inviting Excellent Researchers from Other Countries to Japan

Career stages of researchers

Pre-and post-doctoral researchers

6 years after Ph. D.

JSPS Postdoctoral Fellowships for Research in Japan	
Summer Program 2 months in summer approx. 100 fellows (By recommendation)	Standard 12 to 24 months approx. 340 fellows
Strategic Program 2 to 12 months approx. 50 fellows (By recommendation)	
Short Term 1 to 12 months approx. 140 fellows	

① JSPS International Fellowships for Research in Japan

Purpose

JSPS carries out programs that provide overseas researchers who have an excellent record of research achievements with an opportunity to conduct collaborative research, discussions, and opinion exchanges with researchers in Japan. These programs are intended to help advance the overseas researchers' research activities while promoting science and internationalization in Japan.

Features

- We value the pursuit of knowledge above all else. The program is open to all, regardless of nationality or academic field
- Tailored to a full spectrum of researchers, from early-career researchers to eminent scientists
- Flexible durations ranging from short to long terms

Contents

A. JSPS Postdoctoral Fellowship for Research in Japan (Summer Program)

Young pre- and postdoctoral researchers from the US, the UK, France, Germany, Canada and Sweden are invited to Japan for two months during the summer to participate in joint research at Japanese host institutions. The program begins with a one-week orientation conducted by SOKENDAI (the Graduate University for Advanced Studies), in which the participants study practical Japanese and experience Japanese culture before moving on to their respective host institutions. Prior to returning home, they reassemble to report on the results of their summer research activities.

- Eligible countries: US, UK, France, Germany, Canada, Sweden
- Accepted in FY2018: 102 (US/10, UK/22, France/20, Germany/20, Canada/22, and Sweden/8)

B. JSPS Postdoctoral Fellowship for Research in Japan (Strategic Program)

This program focuses upon the major advanced

Mid-career~Professor

JSPS Invitational Fellowships for Research in Japan

Long Term
2 to 10 months
approx. 60 fellows

Short Term
14 to 60 days
approx. 170 fellows

nations and other selected countries, from which it strategically invites outstanding young researchers to Japan to create collaborative research relationships with Japanese colleagues.

- Eligible countries: US, Switzerland, India
- Accepted in FY2018: 41 (US/11, Switzerland/16, India/14)

C. JSPS Postdoctoral Fellowship for Research in Japan (Short-term)

This program provides opportunities for pre-/post-doctoral researchers from the US, Canada and Europe to conduct, under the guidance of their hosts, cooperative research with leading research groups in universities and other Japanese institutions.

- Eligible countries: EU, Norway, Russia, Switzerland, Canada, US.
- Accepted in FY2018: 193 (UK/30, France/30, Germany/27, US/24, others/82)

D. JSPS Postdoctoral Fellowship for Research in Japan (Standard)

This program provides opportunities for excellent postdoctoral researchers from other countries to conduct, under the guidance of their hosts,

cooperative research with leading research groups in universities and other Japanese institutions.

- Accepted in FY 2018: 808 from 73 countries

E. JSPS Invitational Fellowship for Research in Japan (Long-term)

This program invites overseas researchers with excellent records of research achievements to collaborate with Japanese colleagues in carrying out research through long-term visits.

- Accepted in FY2018: 79 from 33 countries

F. JSPS Invitational Fellowship for Research in Japan (Short-term)

This program invites overseas researchers with excellent records of research achievements for short-term visits to Japan and provide them opportunities for discussions, opinion exchanges, lectures and other activities.

- Accepted in FY2018: 178 from 44 countries

Website

https://www.jsps.go.jp/english/e-inv_researchers/index.html

② RONPAKU (Dissertation PhD) Program (Targeted to Asian and African Researchers)

Purpose · Contents

This program supports excellent researchers from Asian and African countries who wish to receive a PhD from a Japanese university by submitting a dissertation without matriculating a doctoral course. The program is appraised for allowing the fellows to earn a doctoral degree without having to be absent for long periods of time from their home research institutions.

Website

<https://www.jsps.go.jp/english/e-ronpaku/index.html>

③ Support for the Invited JSPS Fellows 1) Orientation

Purpose

This program is primarily for first time long-stay researchers under the JSPS Postdoctoral Fellowships for Research in Japan. Researchers learn about Japanese culture and the important points of life and research in Japan, acquiring new perspective on the values of differing cultures, so that they can smoothly launch and pursue research in our country.

Contents

The program includes lectures on Japanese culture, history, language, research environment, disaster prevention, and cultural awareness.

Website

https://www.jsps.go.jp/english/e-plaza/02_e_orientation.html



Lecture
(Orientation)



Experiencing the tea ceremony
(Orientation)



Japanese class
(Orientation)



Japanese cultural experience
(Orientation)

2) Science Dialogue

Purpose

The aim of this program is to send JSPS Fellows staying in Japan under the “JSPS Postdoctoral Fellowships for Research in Japan” to high schools to give lectures in English while stimulating the students’ interest in research and deepening their understanding from a global perspective through interaction with the fellows.

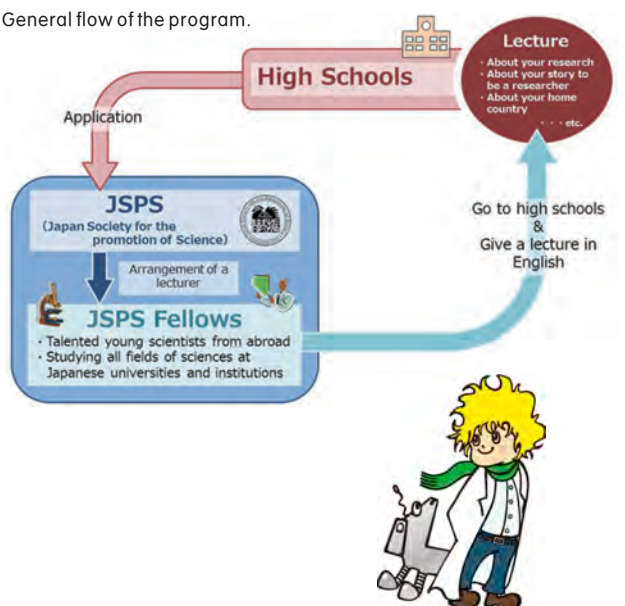
Fellows who participate in this program will have an enjoyable opportunity to not only interact with the Japanese students but also strengthen their ties with Japan by communicating with people in the local community.

Contents

JSPS does matching between overseas fellows and the high schools based on their applications. Selected fellows give their lectures (experiments, fieldworks) in English about their research works, home countries, and their experiences. This program aims to heighten the interest of the students through the lectures.

- Participants in FY2018, 137 lectures, 80 high schools

General flow of the program.



Diallo (left), Jaspis-kun (right)
(Science Dialogue Official Characters)

Website

<https://www.jsps.go.jp/english/e-plaza/e-sdialogue/index.html>



Dr. Giovanni SALA (Italy) from Osaka University
(Kyoto Prefectural Yamashiro High School, January 2019)



Dr. Valeria ROMANO DE PAULA (Brazil) from Kyoto University
(Gifu Prefectural Ena High School, January 2019)



Dr. Md Nazim UDDIN (Bangladesh) from Saitama University
(Nagano Prefectural Yashiro High School, January 2019)



Dr. Patrick William GALBRAITH (US) from The University of Tokyo
(Toyama Prefectural Toyama High School, February 2019)

3 Awards of Recognition, Providing Training Opportunities for Researchers

① Awards of Recognition

(1) JSPS Prize

Purpose

Established as a component of JSPS's program to foster excellent researchers, this Prize recognizes young researchers with rich creativity and superlative research ability. In doing so, it is meant to sustain the awardees' motivation while encouraging them in their research endeavors, thereby raising the level of scientific research in Japan to the world's highest standard.

Contents

(1) Selecting Recipients

Candidates are nominated to JSPS by the heads of Japanese universities and research institutes and by researchers in Japan with records of superlative achievement. The Prize is awarded to outstanding young researchers under age 45, including foreign

researchers who have conducted research in Japan, in all fields of the humanities, social sciences, and natural sciences. Recipients are chosen through a process of preliminary reviews conducted by JSPS's Research Center for Science Systems, with final selections made by the JSPS Prize Selection Committee comprising distinguished Japanese researchers including a Nobel Laureate. Around 25 researchers are awarded the JSPS Prize each year.

(2) The Prize

The Prize consists of a certificate of merit, a medal, and a purse of ¥1.1 million.

On 7 February 2019, the 15th JSPS Prize ceremony was held at the Japan Academy in the presence of Their Imperial Highnesses Prince and Princess Akishino.

Some of the Prize recipients are also awarded the Japan Academy Medal.

Website

<https://www.jsps.go.jp/english/e-jsps-prize/index.html>



The 15th JSPS Prize Ceremony (7 February 2019, The Japan Academy)

15th (FY2018) JSPS Prize Awardees

Name	Affiliation	Research Title
OUCHI Masami	Associate Professor, Institute for Cosmic Ray Research, The University of Tokyo	Observational Studies of the Early Universe with Ly α Emitters
KASHIMA Hisashi	Professor, Graduate School of Informatics, Kyoto University	Machine Learning Methods for Various Data Types as Foundations of Artificial Intelligence
KAWAHARA Yoshihiro	Associate Professor, Graduate School of Information Science and Technology, The University of Tokyo	Research on Composition of Low-cost IoT Devices Based on Informatics
KIDA Yoshikata	Associate Professor, Graduate School of Mathematical Sciences, The University of Tokyo	Ergodic Theory of Group Actions, Orbit Equivalence
GODA Keisuke	Professor, Graduate School of Science, The University of Tokyo	Development of Ultrafast Imaging and Spectroscopy and Their Applications in Science, Industry, and Medicine
GOSHIMA Gohta	Professor, Graduate School of Science, Nagoya University	New Mechanisms of Cytoskeleton Formation
KOJIMA Fuhito	Associate Professor, Department of Economics, Stanford University	Extension of Practical Matching Theory or Market Design
SAITO Tsuguyuki	Associate Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo	Fundamental Research on the Production and Utilization of Cellulose Nanofibers
SHIBATA Naoya	Professor, Graduate School of Engineering, The University of Tokyo	Advancement of Scanning Transmission Electron Microscopy and Its Application to Atomic-Scale Localized Material Characterization
TAKIZAWA Kenji	Professor, Faculty of Science and Engineering, Waseda University	New-Generation Computational Methods and Analyses of Flow Between Solid Surfaces in Contact
TAKEBE Takanori	Professor, Institute of Research, Tokyo Medical and Dental University. Associate Director, Center for Stem Cell and Organoid Medicine, Cincinnati Children's Hospital Medical Center. Assistant Professor, Division of Gastroenterology, Hepatology and Nutrition and Division of Developmental Biology, Cincinnati Children's Hospital Medical Center. Professor, Advanced Medical Research Center, Yokohama City University	Exploring Human Organ Development and Neogenesis from Pluripotent Stem Cells
TAKEMURA Toshihiko	Professor, Research Institute for Applied Mechanics, Kyushu University	Development of Aerosol Climate Model and Its Application to Research on Climate Change and Air Quality, Such as Prediction of Yellow Sand and PM2.5 Transportation
TANAKA Katsunori	Chief Scientist, Biofunctional Synthetic Chemistry Laboratory, RIKEN Cluster for Pioneering Research	In Vivo Synthetic Chemistry Using Glycan Drug Delivery System
TANIYASU Yoshitaka	Group Leader, NTT Corporation, NTT Basic Research Laboratories	Research on Wide Bandgap Semiconductor Ultraviolet Light-Emitting Devices
NAKAO Yoshiaki	Professor, Graduate School of Engineering, Kyoto University	Development of Activation and Transformation Methods for Unreactive Bonds Based on Designed Metal Catalysis
BABA Norihisa	Associate Professor, Institute for Advanced Studies on Asia, The University of Tokyo	A Study on the Early History of Theravāda Buddhism in Terms of Thoughts, Canonization, and Language Ideology
FUKUMA Takeshi	Director/Professor, Nano Life Science Institute (WPI-NanoLSI), Institute for Frontier Science Initiative, Kanazawa University	Development of High-resolution Liquid-environment Atomic Force Microscopy and Its Applications to Subnanoscale Studies on Solid-liquid Interfaces
FUJIHARA Tatsushi	Associate Professor, Institute for Research in Humanities, Kyoto University	A Critical Study on Ecological Thoughts in the Third Reich: From the Viewpoint of Food and Agriculture
MATSUBAYASHI Tetsuya	Associate Professor, Osaka School of International Public Policy, Osaka University	Empirical Analysis of the Functioning and Social Consequences of Representative Democracy
MIZUNUMA Masaki	Associate Professor, Graduate School of Advanced Sciences of Matter, Hiroshima University	Discovery of the Molecular Mechanisms of Cell-cycle Regulation by Genetic Approaches and Development of the Research towards Understanding Lifespan Regulation
MIYAKE Hiroe	Associate Professor, Interfaculty Initiative in Information Studies, The University of Tokyo	Standardization of Earthquake Ground Motion Prediction for Disaster Mitigation
YASUOKA Yoshifumi	Research Fellow of the Japan Society for the Promotion of Science	The Ancient Egyptian Columns: Their Chronological Development and the Underlying Architectural Philosophy
YANAI Takeshi	Professor, Institute of Transformative Bio-Molecules, Nagoya University	Development of Computational Quantum Chemistry Method Based on Density Matrix Renormalization Group Theory and Its Application to Multi-reference Electronic Systems
YAMAMOTO Masahiro	Professor, Research Institute for Microbial Diseases, Osaka University	Analysis of Immunological Interface Between Host and Intracellular Pathogens
YOTSUMOTO Yuko	Associate Professor, Graduate School of Arts and Sciences, The University of Tokyo	Research on Functional and Anatomical Plasticity of Human Brain

Titles and affiliations current as of 1 December 2018

(2) JSPS *Ikushi* Prize

Purpose

In 2009, JSPS received an endowment from His Majesty the Emperor Emeritus Akihito on the 20th year of his reign. Amidst a severe economic environment in Japanese society, His Majesty's desire was to encourage and support young scientists who are working diligently to advance their studies and research.

In deference to his wishes, JSPS has established the JSPS *Ikushi* Prize program, which was placed into operation in FY 2010. It functions to officially recognize outstanding doctoral students who can be expected to contribute to Japan's future scientific advancement, while seeking to fan their enthusiasm for educational and research pursuits.

Contents

(1) Selecting Recipients

Candidates for the Prize are nominated to JSPS by the heads of Japanese universities and academic institutions, who choose outstanding students under 34 years of age enrolled in their doctoral programs. Doctoral students majoring in any field of the humanities, social sciences, or natural sciences are eligible. Awardees are chosen via a process of document reviews and interviews, followed by deliberation at a selection committee established within JSPS, which refers the vetted candidates to the JSPS president for final selection.

About sixteen awardees are selected each year.

(2) The Prize

Awardees receive a certificate, a medal and a scholarship grant of ¥1.1 million. They are also offered an optional JSPS Research Fellowship for Young Scientists, their tenures beginning in the following fiscal year.

Website

<https://www.jps.go.jp/english/e-ikushi-prize/index.html>



The 9th JSPS *Ikushi* Prize Ceremony (8 March 2019, The Japan Academy)

9th (FY2018) JSPS *Ikushi* Prize Awardees

Name	Affiliation	Research Title
ASHIDA Yuto	School of Science, The University of Tokyo	Criticality, Dynamics and Entanglement in Quantum Systems Coupled to Environment
UEYOSHI Kodai	Graduate School of Information Science and Technology, Hokkaido University	Versatile Computer Architectures Accelerating Deep Learning Systems.
OSAWA Yukiko	Graduate School of Science and Technology, Keio University	Integrated Design of Interface and Control Design for Realization of Remote Interactions
KAWAMURA Yuta	Graduate School of Education, Kyoto University	The promotion and prevention factor of altruistic behavior: the effect of reputational concern
KIMATA Yusuke	Graduate School of Science, Nagoya University	Analysis of the plant apical-basal axis formation by the asymmetric division of the zygote
SHIRAKATA Hikari	Graduate School of Science, Hokkaido University	Theoretical studies about the co-evolution between galaxies and supermassive black holes
TSUBOYAMA Kotaro	Graduate School of Frontier Sciences, The University of Tokyo	Single-molecule analysis of conformational changes in Argonaute
TOBITA Takashige	Graduate School of Medicine, Tokyo Women's Medical University	Genetic analysis and development of novel therapeutic methods for dilated cardiomyopathy
NAKAGAWA Tomomi	Graduate School of Humanities and Social Sciences, Okayama University	The cultural background of violence from the prehistory to the state formation period in Japan
NAKAJIMA Yukari	Graduate School of Medical Sciences, Kanazawa University	The basic research in order to observe lymphatic vessels and elucidate the process of inflammation and fibrosis in the chronic Lymphedema.
HAGIO Hanako	Graduate School of Bioagricultural Sciences, Nagoya University	Studies on the central visual system of fish - How do fish look at the world? -
MATSUI Hiroshi	Graduate School of Human Relations, Keio University	Comparative analysis on sensory-motor and morphological basis of tool-use in crows.
MURAOKA Koki	School of Engineering, The University of Tokyo	Computer-aided synthesis of zeolites
MURAKAMI Tatsuya	Graduate School of Medicine, The University of Tokyo	Single-cell-resolution brain atlas for whole-brain analysis of cells
MURATA Kayo	Graduate School of Music, Tokyo University of the Arts	The Development of Johann Sebastian Bach's Contrapuntal Technique up to the Cöthen Period
MURATA Yuki	Graduate School of Humanities and Sociology, The University of Tokyo	The Emergence of the "One-nation-one-state" System in East-Central Europe, 1917-1922
YASUDA Kenji	School of Engineering, The University of Tokyo	Development of Spin Physics in Magnetic Topological Insulators
WATANABE Kanako	Graduate School of Engineering, Tohoku University	Control over the spatial distribution of particles via applying external stimuli

Affiliations current as of 1 May 2018

(3) International Prize for Biology

Purpose

The International Prize for Biology was instituted in April of 1985. It aims to commemorate the sixty-year reign of Emperor Showa and his longtime devotion to biological research and also to offer tribute to His Majesty the Emperor Emeritus, who has strived over many years to advance the study of taxonomy of gobioid fishes while contributing continuously to the developing of this Prize. The Prize is awarded to researchers who have attained records of world-class achievements in a selected field of biological research and have made landmark contributions to the advancement of science.

Contents

(1) Award recipient selection

The award field and recipient are selected by the "Committee on the International Prize for Biology" consisting of representatives from Japanese scientists, economic organizations, and the heads of affiliated academic institutions, with JSPS as the secretariat. Upon committee selection of the award field each year, domestic and international research institutions, academic organizations and academic promotion organizations recommend candidates to be reviewed by the committee. Careful review is conducted by the judging panel made up of about 20 experts including foreign judges, set up under the Committee on the International Prize for Biology, who then select one candidate for recommendation to the Committee. The

Committee follows up on the recommendation and determines the recipient in August.

(2) Award Ceremony

The award ceremony is held at the Japan Academy in November or December of each year.

Awarded each year is one prize consisting of a certificate of merit, a medal and a purse of ¥10 million.

Website

<https://www.jsps.go.jp/english/e-biol/index.html>



Presentation Ceremony for the 34th International Prize for Biology (19 November 2018, The Japan Academy)

International Prize for Biology

25th	(2009)	Biology of Sensing	Winslow Russell Briggs (US)
26th	(2010)	Biology of Symbiosis	Nancy Ann Moran (US)
27th	(2011)	Developmental Biology	Eric Harris Davidson (US)
28th	(2012)	Neurobiology	Joseph Altman (US)
29th	(2013)	Biology of Evolution	Joseph Felsenstein (US)
30th	(2014)	Systematic Biology and Taxonomy	Peter Crane (UK)
31st	(2015)	Cell Biology	OHSUMI Yoshinori (Japan)
32nd	(2016)	Biology of Biodiversity	Stephen Philip Hubbell (US)
33rd	(2017)	Marine Biology	Rita Rossi Colwell (US)
34th	(2018)	Paleontology	Andrew Herbert Knoll (US)
35th	(2019)	Biology of Insects	Naomi Ellen Pierce (US)

(4) Hideyo Noguchi Africa Prize

Purpose

The spread of infectious diseases presents a common threat to all humanity. Mindful that Africa faces this scourge most acutely, the Government of Japan established the Hideyo Noguchi Africa Prize in July 2006 in memory of Dr. NOGUCHI Hideyo (1876-1928) whose belief in medical advancement and self-sacrificing activities in Africa remain a beacon of inspiration to all.

The Prize recognizes and honors individuals with outstanding achievements in the fields of medical research and medical services who have worked to combat infectious and other diseases in Africa, thus contributing to the health and welfare of the African people and, by extension, all humankind.

The Prize is awarded every six years when the Tokyo International Conference on African Development (TICAD) is held in Japan, with the recipient receiving a citation, a medal, and a purse of 100 million yen.

Contents

As to the selection process, a sub-Committee established under the auspices of JSPS selects candidates in respect of “medical research” for the award and receives nominations from both in Japan and abroad, from among which it recommends a maximum of three candidates to the Hideyo Noguchi Africa Prize Committee to select the final candidates. The candidate is referred to the Prime Minister for final selection.

Website

<https://www.jsps.go.jp/english/e-noguchiafrica/index.html>

② Providing International Training Opportunities

Purpose

In order to build international networks, and foster excellent young researchers in Japan as well as in Asia-Africa and developed countries, we hold symposiums and seminars for them to engage in intensive discussions.

Features

Providing opportunities and platforms for young researchers to acquire new perspectives and participate in international research settings

- Give opportunities for promising young researchers to build networks with peers in international settings, while acquiring leadership skills through such experiences



The 11th HOPE Meeting, panel discussion



The 11th HOPE Meeting, excursion at Shurijo Castle

Programs

① HOPE Meetings - Five Days with Nobel Laureates

HOPE Meetings are held to foster the next generation of researchers upon whose shoulders the future of S&T advances in Asia-Pacific and Africa will rest, while working to build collegial networks among them. These annually held meetings provide an opportunity for excellent graduate students and young researchers specially chosen from within the regions to interact directly with Nobel laureates and other of the world's most leading scientists. Held for the first time in the Okinawa Institute of Science and Technology Graduate University (OIST), Okinawa in March 2019, the 11th HOPE Meeting was chaired by Prof. KAJITA Takaaki (2015 Nobel laureate in Physics). It brought 104 young researchers from 19 countries/regions together with eight renowned lecturers including six Nobel laureates in fields of physics, chemistry, and physiology/medicine.

Website

<https://www.jsps.go.jp/english/e-hope/index.html>



The 11th HOPE Meeting, group discussion with Prof. Ada YONATH (2009 Nobel laureate in Chemistry)



The 11th HOPE Meeting, lecture by Prof. AMANO Hiroshi (2014 Nobel laureate in Physics)



The 11th HOPE Meeting (Okinawa 4-8 March 2019)

② Young Researcher Support for Attending Lindau Nobel Laureate Meetings

Every year, the Council for the Lindau Nobel Laureate Meetings invites about 30 Nobel laureates to Lindau in the south of Germany to give lectures to and hold discussions with young researchers assembled from around the world. JSPS nominates candidates from Japan to the Council and covers their travel-related expenses to attend these Lindau Meetings.

Website

<https://www.jsps.go.jp/english/e-lindau/index.html>

③ International Seminars

Together with overseas academic research



The 69th Lindau Nobel Laureate Meeting
Christian Flemming/Lindau Nobel Laureate Meetings

institutes, we support the expenses related to the implementation of academic seminars in natural sciences.

Website

https://www.jsps.go.jp/english/e-asia_seminar/index.html



JSPS-DST Japan-India Forum for Advanced Study
(Prof. HIDAKA Hiroshi, Nagoya University)



The 69th Lindau Nobel Laureate Meeting
Christian Flemming/Lindau Nobel Laureate Meetings

④ Nobel Prize Dialogue

Nobel Prize Dialogue Tokyo, co-organized by JSPS and Nobel Media AB (the public relations arm of the Nobel Foundation), is an open symposium in which a host of Nobel Laureates, distinguished researchers, and experts from Japan and abroad engage in a spirited dialogue with members of the public, including students and young researchers. It was inspired by “Nobel Week Dialogue” held in Sweden every year since 2012 on the day before the Nobel Prize Award Ceremony. It is held for the purpose of contributing to the promotion of academic science and technology through deepening the general public’s interest and understanding. The initial Nobel Prize Dialogue Tokyo in 2015 was the first time for the Dialogue to be held outside of Sweden; March 2019 was the fourth Dialogue.

Website

https://www.jsps.go.jp/english/e-nobel_prize_dialogue/index.html

Videos from Nobel Prize Dialogue

<https://www.youtube.com/nobeldialogue>



Lecture by Prof. HONJO Tasuku
(2018 Nobel laureate in Physiology or Medicine)
(Nobel Prize Dialogue Tokyo 2019)



Interview Session to Prof. SANKAI Yoshiyuki with demonstration of robot suit HAL®
(Nobel Prize Dialogue Tokyo 2019)



Nobel Laureates Discussion (Nobel Prize Dialogue Tokyo 2019)

Event	Date	Venue	Theme	The number of panelists
Nobel Prize Dialogue Tokyo 2015	1 March 2015	Tokyo International Forum	The Genetic Revolution and Its Future Impact	25 including 7 Nobel Laureates
Nobel Prize Dialogue Tokyo 2017	26 February 2017	Tokyo International Forum	The Future of Intelligence	36 including 5 Nobel Laureates
Nobel Prize Dialogue Tokyo 2018	11 March 2018	PACIFICO Yokohama Conference Center	The Future of Food	30 including 5 Nobel Laureates
Nobel Prize Dialogue Tokyo 2019	17 March 2019	PACIFICO Yokohama Conference Center	The Age to Come	19 including 5 Nobel Laureates

⑤ Frontiers of Science (FoS) Symposia

In these symposia, talented young researchers from Japan and the counterpart country lodge together so as to concentrate their time and effort on advancing cross-disciplinary discussions on leading-edge scientific topics across a spectrum of research domains. Cosponsored by partner organizations, these symposia are carried out via collaborative frameworks. While working to broaden the scientific perspectives of the participating young researchers, FoS symposia also attempt to spur free thinking and new ideas unencumbered by precepts of existing academic disciplines, thus contributing to the pioneering of new interdisciplinary domains and the building networks for future generations of leaders.



Website

<https://www.jsps.go.jp/english/e-fos/index.html>

List of symposia and partner organizations (Up to FY2018)

Symposium	Partner Organization
Japanese-American Frontiers of Science (JAFoS) Symposium	National Academy of Sciences (NAS)
Japanese-German Frontiers of Science (JGFoS) Symposium	Alexander von Humboldt Foundation (AvH)
Japanese-American-German Frontiers of Science (JAGFoS) Symposium	National Academy of Sciences (NAS) Alexander von Humboldt Foundation (AvH)
Japanese-French Frontiers of Science (JFFoS) Symposium	Ministry of Foreign Affairs and International Development (MAEDI) Ministry of National Education, Higher Education and Research (MENESR) National Center for Scientific Research (CNRS)
UK-Japan Frontiers of Science (UK-Japan FoS) Symposium	The Royal Society (RS)
Japanese-Canadian Frontiers of Science (JCFoS) Symposium	Royal Society of Canada (RSC) Canadian Institute For Advanced Research (CIFAR)



Cross-disciplinary discussions on leading edge scientific topics, Japanese-German Frontiers of Science (JGFoS) Symposium (September 2018, Kyoto)



Poster session, Japanese-German Frontiers of Science (JGFoS) Symposium (September 2018, Kyoto)



Japanese-German Frontiers of Science (JGFoS) Symposium (September 2018, Kyoto)

4 Presenting Researcher Career Paths

Leading Initiative for Excellent Young Researchers (LEADER)

Purpose

This program works to create stable environments in which excellent young researchers who challenge new scientific domains can advance their research independently. It shows new career paths to young researchers who can succeed in and across research institutions of the academic, industrial and governmental sectors throughout Japan. With these objectives at its core, the LEADER program was launched by MEXT in FY 2016. Based on MEXT stipulated guidelines, JSPS carries out the program's application recruitment, screening functions and grant disbursement.

Features

Under this program, research institutions offer posts to employ excellent young researchers, and young researchers apply for this program. After the "excellent young researcher candidates" are selected from among the applicants, they negotiate the terms of employment with the research institutions. When they obtain a stable and independent research environment in each institution, they are determined

as Excellent Young Researchers and are provided with expenses for a certain period.

The posts given to the excellent young researchers are either tenure track or non-time-limited appointments, administered through a fair and transparent personnel system, which must, in principle, have an annual salary system.

Framework

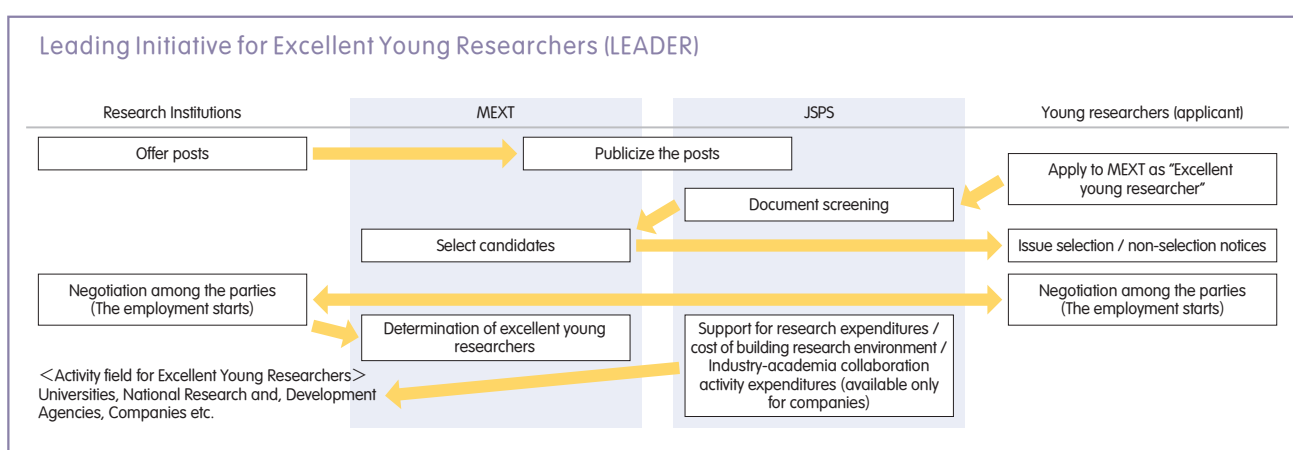
(1) Requirements for research institutions

The targeted institutions for offering posts are national and private universities, interuniversity research institute corporations, colleges of technology, national research and development agencies, public research and development institutes, or enterprises with corporate status in Japan. The targeted fields for posts are all fields of the humanities, social sciences, and natural sciences.

(2) Requirements for applicants

① Have obtained a doctoral degree or completed a doctoral course, ② be 39 years or younger in the year following the recruitment (or 42 years or younger for applicants in medical fields that include clinical training),* ③ have research achievements in the past five years.

* Age requirements will be considered for researchers with research interruption due to childbirth or childcare.



(3) Research Expenditures and Costs of building

Research Environment

① Research expenditures

Year 1 and 2 after adoption: Up to ¥6 million/year/
researcher (Up to ¥4 million/year for humanities
and social science fields)

② Costs of building research environment

Year 1 to 5 after adoption: Up to ¥2 million/year/
researcher

(4) Industry-academia collaboration activity
expenditures

*Available only for companies

Year 1 to 5 after adoption: As much as a half of the
industry-academia collaboration activity
expenditures shouldered by a company based on the
contract regarding the joint research, etc., with up
to ¥10 million/year/researcher.

Budget

FY2019: ¥1.73 billion

Website

<https://www.jsps.go.jp/j-le/index.html>

1 World Premier International Research Center Initiative (WPI)

Purpose

Based on provisions in the government's 3rd S&T Basic Plan, issued in March 2006, and the Comprehensive Strategy for Fostering Innovation issued by the Council for Science and Technology Policy in June of that year, MEXT inaugurated the WPI Program in the 2007 fiscal year. The program seeks to build top world-level research centers that have at their core a group of superb-caliber researchers. It provides concentrated funding to research institutes in Japan that work to achieve a globally high level of science while making system reforms in their operations. These centers should be highly visible within global brain circulation and able to boast an outstanding research environment and very high standard of research of a kind that prompts frontline researchers from around the world to want to advance their research at them.

In 2017 fiscal year, MEXT established a WPI Academy. The Academy is expected to enhance and amplify the brand of the overall WPI Program. By accelerating the dissemination and application of the program's achievements while networking the activities of the WPI centers, the Academy is expected to play a leading role in internationalizing and reforming Japan's research environment. The five WPI centers selected in FY 2007 have been certified as Academy members and commenced conducting Academy activities.

MEXT has subsidized JSPS to carry out WPI grant selection, perform evaluations and oversee project progress using procedures prescribed by the Ministry. Concurrently, JSPS manages the operation of the WPI Academy and supports the activities of the WPI centers with an aim to optimizing the output of the WPI Program.

Features

(1) Building creating top world-level research centers through following four missions.

- Science (Advancing research of the highest global level)
- Fusion (Generating fused disciplines)
- Globalization (Realizing an international research environment)
- Reform (Making organizational reforms)

(2) Disseminating the experiences and know-how accumulated at WPI centers

Contents

- Eligible institutions: Universities, Inter-university research institutes, National research and development agencies and Public interest corporations
- Selection results: 13 institutions have been selected as WPI center: Five in FY 2007 (one was granted a 5-year extension), one in FY 2010, three in FY 2012, two in FY 2017 and two centers in FY 2018.
- Project duration: Ten years, with a possible 5-year extension for centers selected by FY2012; Interim project evaluations are performed at the fifth year.
- Amount of grants
 - Up to about ¥1.4 billion per year for each project selected in FY 2007 and 2010
 - Up to ¥700 million per year for each project selected in FY 2012, 2017, and 2018
- Follow-up
 - Each year, the WPI centers receive a site visit and a hearing to determine the state of progress being made in their projects. When deemed needed, improvements in their operations are requested.

Budget

FY2019: ¥6.75 billion

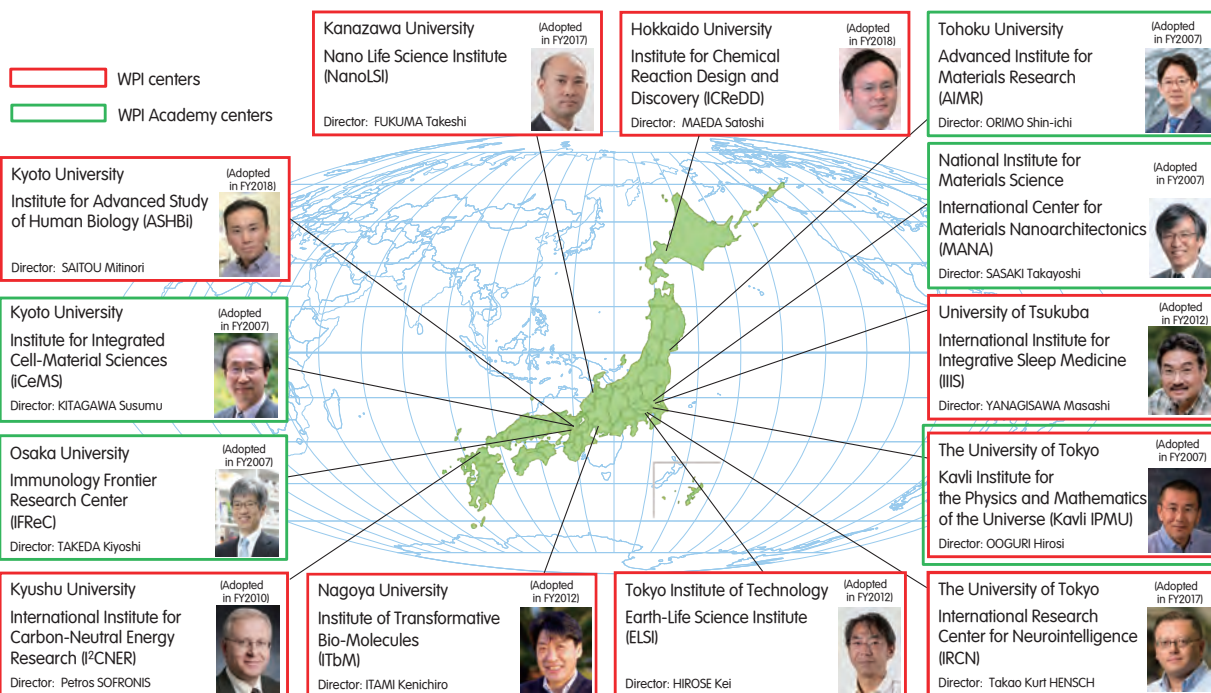
Website

- JSPS Website
<https://www.jsps.go.jp/english/e-toplevel/index.html>
- WPI Forum (The website shares experiences and know-how accumulated at WPI centers and provides information for WPI related events)
<https://wpi-forum.jsps.go.jp/>



Website "WPI Forum" image

WPI centers



Multi-disciplinary discussion over tea (Kavli IPMU)



WPI Public Relations Activity at 2019 AAAS Annual Meeting in Washington, D.C.

Tokyo Institute of Technology Earth-Life Science Institute (ELSI)
Credit: Nerissa Escanlar

2 Support for University Education Reform

1) Program for Leading Graduate Schools

Purpose

Program for Leading Graduate Schools works to advance the establishment of university graduate schools of the highest caliber by supporting the dramatic reform of their education programs in such a way that they will institute degree programs recognized as top quality around the world. To foster excellent students who are both highly creative and internationally attuned and who will play leading roles in the academic, industrial and governmental sectors across the globe, the program brings top-ranking faculty and students together from both in and outside Japan and enlists participation from other sectors in its planning and execution, while creating continuity between master's and doctoral programs and implementing curricula that overarches fields of specialization. JSPS has established a committee within its organization to screen applications and evaluate projects.

Features

- (1) Foster leaders with potential for global achievement across academia, government, and industry
- (2) Support the development and deployment of guaranteed world-class masters and doctoral combined degree programs, founded on internationally prominent educational research resources, and the participation of academia, government, and industry.
- (3) In line with the purpose of the program, grant-based funding is provided to outstanding doctoral candidates selected for new degree programs.

Contents

● 3 Support Categories

The program supports 3 categories defined by the leader to be fostered and the issues to be resolved.

(1) All-around category

Aimed at fostering top leaders who can play active roles in the governmental, nonprofit, industrial and academic sectors and be a driving force within global society, degree programs are developed that integrate the humanities and science, optimizing the knowledge and wisdom concentrated in the universities.

(2) Composite category

Aimed at fostering leaders who can synthesize industrial, academic and governmental projects and drive innovation in addressing issues facing society, degree programs are developed that crosscut plural research domains.

(3) "Only-one" category

Aimed at fostering leaders who can pioneer new fields of research, degree programs are developed that are singularly unique worldwide and that raise the university's international excellence to the highest global standard.

● Selection results

Category/Theme	FY2011 ^(※)	FY2012 ^(※)	FY2013	Total
1. All-around Category	3	2	2	7
2. Composite Category				
Environment	4	2		6
Life Science & Health	4	2		6
Materials		3	3	6
Information		3	4	7
Pluralistic Society		3	3	6
Safety & Security	1	2		3
Cross-cutting Themes	2	2	2	6
3. "Only-one" Category	6	5	4	15
Total	20	24	18	62

※ Support ended

● Project duration: 7 years maximum

● Follow up

We visit universities implementing adopted programs, conduct interviews with participants, including students, and inspecting classrooms to

properly assess and confirm the progress of the program, as well as provide guidance and advice as needed.

● Evaluation

An interim evaluation is conducted in the fourth year after adoption. A post-project evaluation is conducted in the seventh year. Post-project evaluations for programs adopted in FY2013 were conducted in FY2019.

Budget

FY2019: ¥2.91 billion

Website

<https://www.jspss.go.jp/english/e-hakasekatei/index.html>



Leading Program Forum 2018 (December 2018, Tokyo)
Photo by KAGAWA Kenji



LGS Women's Association Leading Program (November 2018, Shizuoka)

2) WISE Program (Doctoral Program for World-leading Innovative & Smart Education)

Purpose

This program makes use of the core strengths of each university, and ongoing graduate school reforms to gather world-leading education and research capabilities and build 5-year integrated doctoral degree programs in systematic cooperation with universities, research institutes, and the private sector. In addition to cultivating outstanding doctoral talent who lead all sectors, this program will promote efforts to form an outstanding base for personal development and exchange in order to continuously create new collaborative research. JSPS has established the WISE Program Committee to review and evaluate the projects.

Features

The goal is for national and private universities with doctoral programs in Japan to lead in the creation and practical use of new knowledge by creating value to drive the next generation, along with doctoral candidates able to take on the challenge of social issue solutions and bring innovation to society. To wit, we establish clear guidelines for the type of candidate who should be trained in order to foster high level “knowledge professionals” (what fields are useful, who can best benefit the drive for solutions to issues facing society). Our goal is to build and develop consistent-by-term quality-guaranteed doctoral degree programs (including integrated doctoral programs and 4-year doctoral programs in the fields of medicine, dentistry, pharmacology (undergraduate programs limited to 6 years), and veterinary science).

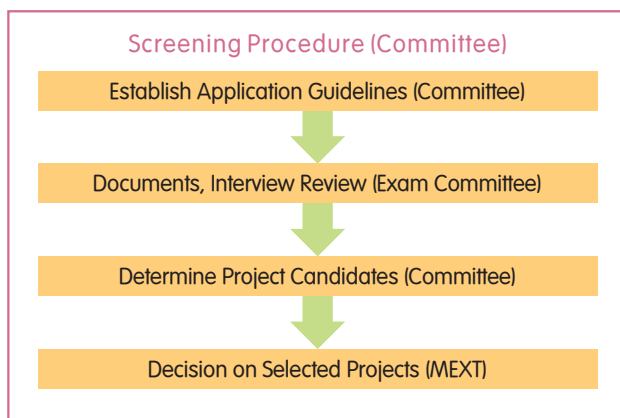
Programs

● Application Areas

The following areas ① to ④ are established to foster doctoral human resources.

- ① Research areas in which Japan shows international superiority and excellence
- ② Areas integrating humanities and sciences, interdisciplinary, and new areas that create value and systems in society
- ③ Areas contributing to the creation of new industries and economic development that will become the core of future industrial structure.
- ④ Areas where Japan's contribution is anticipated from the viewpoint of securing academic diversity in the world

● Review procedure



● Number of selections

FY	Selections (Number of applications)	
	University	Number
2018	13 (38)	15 (54)
2019	9 (29)	11 (44)

- Funding period: 7 years (Overall and individual programs are evaluated in the 4th year, with a future disposition study in the 8th year)

● Follow-up

The program officer at WISE Program Committee observes constant progress status and gives consultations and advices on the selected program.

● Evaluation

WISE Program Committee conducts an evaluation in the 4th and 7th year.

Budget

FY2019: ¥7.41 billion

Website

<https://www.jsps.go.jp/j-takuetsu-pro/index.html>

3) Acceleration Program for University Education Rebuilding (AP)



Purpose

Building upon educational reforms already achieved, this program works to advance university education in ways ensure its quality across a continuum of initiatives, beginning with the creation of fluid linkage between high schools and society. Toward achieving the programs objectives, universities, including junior colleges and colleges of technology, carrying out vanguard programs are supported. JSPS has established a committee within its organization to screen applications and evaluate projects.

Features

Under the strong leadership of university Presidents and technical school Principals, the program includes the following themes

(Themes offered, 2014)

Theme I: Active Learning

Foster general competence in students, including cognitive, ethical and social skills, and refinement, knowledge and experience through the use of active learning teaching/learning methodology.

Theme II: Visualization of Learning Outcomes

Employ various indices to visualize learning outcomes, and apply the results to improve education content and methodology.

Theme III: Entrance Examination and High School/University Articulation Reforms

(Technical colleges are not covered)

① (Entrance examination reforms)

Develop and implement a university admission system to evaluate and select applicants based on a multifaceted and comprehensive assessment of their motivations, abilities and aptitude.

② High School/University Articulation Reforms

Strongly promote connections between high schools and universities by promoting a mutual understanding of each educational objective, content, and method.

(Themes offered, 2015)

Theme IV: Long Term Extramural Study Program

(gap year)

Promote the development of a system that allows students to learn autonomously immediately after they enter university, by developing and implementing 'extracurricular study programs' of one month or longer.

(Themes offered, 2016)

Theme V: Enhancement of Quality Assurance at Time of Graduation

Based on three policies, develop a mechanism that objectively evaluates student competency acquired by the time of their graduation, an effective means to exhibit their results in more visible way to society, and a system to give advice and evaluation through cooperation with diverse external professionals to contribute to quality assurance in university education.

Contents● **Number of Selections**

<> Number of applications

FY	Theme	Selections
2014	Theme I	9<94>
	Theme II	8<41>
	Theme I・II (complex type)	21<88>
	Theme III①	3 <8>
	Theme III②	5<19>
2015	Theme IV	12<38>
2016	Theme V	19<116>
Total		77 (404)

- Funding period: Themes I-III: Up to 6 years; Theme IV: Up to 5 years; Theme V: Up to 4 years

● **Evaluation**

FY2016: Follow-up for Themes I - IV; FY2017: Interim evaluation of all themes; FY2018 and FY2019: Follow-up; FY2020: Post-project evaluation after completion of support.

AP Flow of Review/Evaluation/Follow-up through the project period

Acceleration Program for University Education Rebuilding (AP)

※ ... Funding period ※ ... Post funding period

Selected Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
FY2014			Selection		Follow up	Interim evaluation			
FY2015				Selection			Follow up	Follow up	
FY2016					Selection				Post-project evaluation

**Budget**

FY2019: ¥0.68 billion

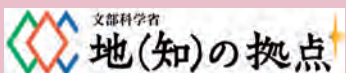
Website

<https://www.jsps.go.jp/j-ap/index.html>



<https://www.ap-archive.jp/>

4) Program for Promoting Regional Revitalization by Universities as Centers of Community (COC+Program)



Purpose

The Center of Community project (COC) was developed from 2013 as part of “Universities for the Region” to undertake the formation of universities as hubs for regional revitalization and invigoration, while harnessing the strength of each university and promoting the differentiation of university missions. The project supports university efforts to reform necessary education curriculum, in cooperation with local government and enterprises, in order to train human resources that the region seeks, as well as create and develop attractive places of employment for students.

JSPS established the COC+ committee to review applications and evaluate projects.

Features

The goal of this program is to create employment, and improve the local retention rate of university graduates. To accomplish this, multiple universities in regional areas cooperate with local government, enterprises that employ personnel, and NPOs and private organizations focused on regional

revitalization, in order to contribute to fostering human resources active in the region, stimulating regional industries centered on universities, and drawing population to the local areas.

The region works together to create employment and improve local employment rates, and the university in particular works on building and implementing education curricula to train human resources needed by the area.

Contents

Number of Selection

FY	< >Number of applications		
	2013	2014	2015
	COC	COC	COC+
Selections	52 <319>	25 <237>	42 <56>

Funding period: Up to 5 years

Evaluation

FY2016: University COC project evaluation and COC+ follow up; FY2017: COC+ interim evaluation; FY2018 and FY2019: Follow-up; FY2020: Post-project evaluation after completion of support.

COC+ Program Flow of Review/Evaluation/ Follow-up through the project period

Program for Promoting Regional Revitalization with Universities as Centers of Community (COC+)

Selected Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
FY2015 COC+				Selection	Follow-up	Interim evaluation	Follow-up	Follow-up	Post-project evaluation
FY2013 COC		Selection			Evaluation				
FY2014 COC			Selection		Evaluation				

Screening procedure



Evaluation procedure



Follow-up procedure



Budget

FY2019: ¥1.04 billion

Website<https://www.jsps.go.jp/j-coc/index.html>

COC Portal site (administered by Kochi University)

<http://www.coc-all.jp/>

3 Support for the Globalization of Japanese Universities

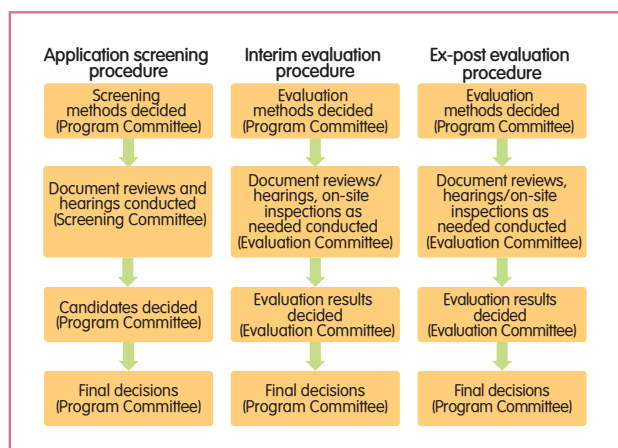
1) Inter-University Exchange Project

Purpose

The program aims to give priority support to projects to build higher education networks with strategically important countries and regions. In doing so, it seeks to strengthen the global development capacity of Japanese universities and fostering of excellent personnel who will play an active role on the global stage. While establishing an internationally recognized university education system, it supports projects that advance quality-assured international exchange of Japanese students and international cooperation for education promoting strategic acquisition of excellent overseas students. A program committee established within JSPS screens applications and evaluates projects.

Features and Contents

- Funding period: Up to 5 years
- Screening: Submitted proposals are reviewed every year.
- Evaluation:
Annual follow-up (excl. interim evaluation year), interim evaluation at third year, and ex-post evaluation are conducted.



● Number of selections:

Fiscal Year	Type	Selections <Number of applications>
2011 (Support ended)	Type A: CAMPUS Asia	13 <103>
	I: Projects with universities in China and Korea	10 <51>
	II: Projects with other universities in China, Korea, and universities in ASEAN member countries	3 <52>
	Type B:	12 <80>
	I: Projects with universities in the U.S.	7 <49>
2012 (Support ended)	II: Projects with universities in Europe, Australia, and other countries	5 <31>
	Category I: Projects with universities in ASEAN member countries	9 <54>
2013 (Support ended)	Category II: SEND (Student Exchange-Nippon Discovery) program	5 <17>
	AIMS (ASEAN International Mobility for Students) program	7 <25>
2014 (Support ended)	Projects with universities in Russia	5 <17>
	Projects with universities in India	4 <14>
2015	Projects with universities in Central and South America	8 <25>
	Projects with universities in Turkey	3 <9>
2016	Type A-(I): Advanced projects based on the results from CAMPUS Asia pilot program	8 <8>
	Type A-(2): New CAMPUS Asia projects	9 <22>
	Type B: Projects with universities in ASEAN member countries	8 <52>
2017	Type A: Projects that promote international exchange	With Russia 7 <20>
		With India 2 <14>
	Type B: Projects that establish an information platform for Japanese universities	With Russia 1 <2>
		With India 1 <2>
2018	Type A: Projects that promote international exchange	With the U.S. 9 <20>
	Type B: Project that promotes international exchange and that establish an information platform for Japanese universities	
2019		1 <1>
	Projects with universities in the EU	3 <10>

Budget

FY2019: ¥1.31 billion

Website

<https://www.jsps.go.jp/j-tenkairyoku/index.html>
(Available only in Japanese)

2) Top Global University Project

Purpose

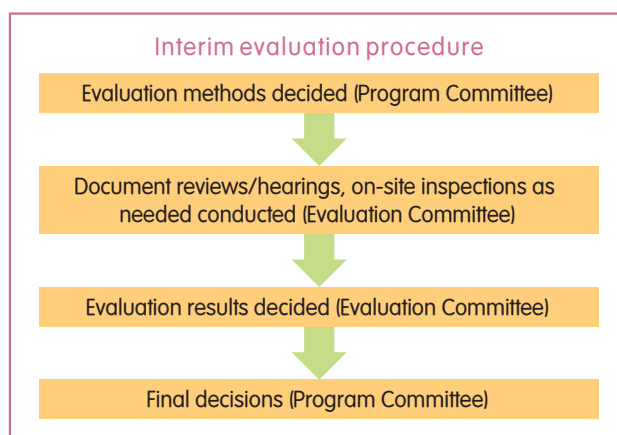
With an aim to raising the global competitiveness of higher education in Japan, the program works to promote comprehensive internationalization of Japanese universities through university reforms and cooperation with outstanding overseas universities. Priority support is given to universities offering top world-level education and research programs, and to globally oriented universities driving internationalization of Japanese universities. A program committee established within JSPS screens applications and evaluates projects.

Features and Content

- Number of selection in FY 2014:

<> Number of applications		
Category	Number	Total
Type A: Top Type -For world-class universities with potential to rank in the top 100 list	13 <16>	37 <109>
Type B: Global Traction Type -For universities leading Japanese society toward globalization	24 <93>	

- Funding period: Up to 10 years
- Evaluation:
Annual follow-up (excl. interim evaluation year), interim evaluations at fourth/seventh year, and ex-post evaluation are conducted.



Budget

FY 2019: ¥3.40 billion

Website

<https://www.jsps.go.jp/english/e-tgu/index.html>

Building a Robust International Research Base

Purpose

This program works to form diverse networks with overseas academic promotion agencies, foreign researchers with JSPS project experience, JSPS overseas offices and others to support international academic exchange in order to foster an environment where international joint research and seminars by researchers and academic research institutes in Japan can take place smoothly and effectively.

Features

(1) Cooperation with academic promotion agencies in other countries

- In an effort to develop a global stage to promote diverse research, we discuss global issues and common solutions for academic promotion agencies around the world. We also form partnerships based on exchange agreements with academic promotion agencies in other countries.

(2) Support for forming diversified networks among researchers in and out of Japan.

- We promote the formation of researcher networks through a database of researchers in Japan and abroad, research community support from JSPS project veterans, and other means.

(3) Support for international academic exchange through JSPS offices worldwide

- Through 10 JSPS offices in 9 countries, we collect and share information on academic trends in each region as we support the worldwide formation of

international networks for researchers, universities, and research institutes in Japan.

1) Globalizing and Strategically Developing Research Programs

In April 2018, JSPS established the Headquarters for International Affairs to promote JSPS projects free from domestic or international boundaries. Through diverse operations, the Headquarters collect and share information on international trends and overseas research institutes while studying ways to approach strategic international joint researches and to actively work on project globalization. In addition, we systematically organize JSPS international operation efforts and offer information that is easy for researchers and the public to understand.

2) Partnering with Science-Promotion Agencies of Other Countries

① Global Research Council (GRC)

The Global Research Council (GRC) was established by National Science Foundation (NSF) in May 2012 as a forum that brings together the heads of research-funding agencies from around the world. It works to strengthen linkage among the agencies and to elevate the quality of science, while as a consortium taking on issues that cannot be solved by any one country. Each year, the GRC holds an annual meeting and five preparatory meetings in designated regions of the world. From the time of the GRC's establishment,



The 8th Annual Meeting of the Global Research Council (GRC) (May 2019, São Paulo)

JSPS has been a member of its Governing Board.

The 9th annual GRC meeting is scheduled to be held in Durban, South Africa in May 2020, cohosted by the National Research Foundation of South Africa (NRF), UK Research and Innovation (UKRI).

Website

<https://www.jsps.go.jp/english/e-grc/index.html>

<https://www.globalresearchcouncil.org/>

List of past GRC annual meetings

Times held	Schedule	Achievements
1st	13-15 May 2012 Washington, D.C., USA	· Statement of Principles for Scientific Merit Review
2nd	27-29 May 2013 Berlin, Germany	· Statement of Principles for Research Integrity · Action Plan towards Open Access to Publications
3rd	26-28 May 2014 Beijing, China	· Statement of Principles and Actions for Shaping the Future
4th	26-28 May 2015 Tokyo, Japan	· Statement of Principles for Funding Scientific Breakthroughs · Statement of Approaches: Building Research and Education Capacity
5th	25-27 May 2016 New Delhi, India	· Statement of Principles on Interdisciplinarity · Statement of Principles and Actions Promoting the Equality and Status of Women in Research
6th	29-31 May 2017 Ottawa, Canada	· Statement of Principles: The Dynamic Interplay Between Fundamental Research and Innovation · Statement of Principles: Capacity Building and Connectivity Among Granting Agencies Worldwide
7th	14-16 May 2018 Moscow(Russia)	· Peer/Merit Review/ Statement of Principles
8th	1-3 May 2019 São Paulo (Brazil)	· Statement of Principles: Addressing Expectations of Societal and Economic Impact

② Asian Heads of Research Councils (ASIAHORCs)※

To advance science aimed at solving problems shared commonly among Asian countries while fostering the region's young researchers, this annual meeting is held by the heads of science-promotion agencies from ten Asian countries: Japan, China, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. They engage in a broad exchange of views and information including science policy, research funding and international collaboration in their respective countries.

Website

<https://www.jsps.go.jp/english/asiahorcs/index.html>

③ Heads of Research Councils in Asia (A-HORCs)※

To promote high-level research activities in Asia with Japan, China and Korea at their core, the heads of leading science-promotion agencies in the three countries meet annually to discuss face-to-face S&T policy trends and the state of international collaboration in their respective countries. Initially proposed by JSPS, these meetings have been held each year from 2003. Discussions in them have yielded various tangible outcomes including the establishment of the "A3 Foresight Program" and "Northeastern Asian Symposiums," jointly implemented by JSPS and its partner agencies in China and Korea.

※ HORCs: Heads of Research Councils



The 16th A-HORCs Meeting (September 2018, Nagoya)

3) Forming and Collaborating with Overseas Researcher Communities

① Forming a Researcher Community

This program supports follow-up activities for former JSPS fellows in the researcher community, in order to form and maintain a network between JSPS overseas fellows. At present, nineteen JSPS alumni associations have been established in different countries. These associations hold seminars, symposia and other events to promote exchange with Japan and foster the potential for young researchers to be interested in doing research in Japan.

Website

https://www.jsps.go.jp/english/e-plaza/20_alumni.html

② BRIDGE Fellowship Program

Directed toward member of JSPS alumni associations, this program provides opportunities for former JSPS fellows to revisit Japan for the purpose of creating, sustaining and strengthening collaborative research relations with fellow researchers in Japan. During

their stay in Japan, BRIDGE fellows conduct joint research and seminars, give lectures and do activities to raise awareness among young researchers, and participate in conferences in Japan to strengthen international researcher networks.

Website

<https://www.jsps.go.jp/english/e-plaza/bridge/index.html>

③ Research Network Support Service

JSPS has launched the JSPS-Net,[※] a social networking service, to support the formation of networks and research communities for both Japanese and international researchers, in order to contribute to strengthening and expanding human networks derived from long years of research exchange between our country and other countries.

※ JSPS Researchers Network.

Website

(JSPS-Net) <https://www-jsps-net.jsps.go.jp>

Alumni community



- *1 The German alumni community includes other German-speaking regions of Austria and Switzerland.
- *2 The UK alumni community includes Ireland.
- *3 The US alumni community includes Canada.
- *4 The Eastern African alumni community includes Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda.



4) Introducing the Activities of JSPS Overseas Offices

JSPS operates eleven liaison offices in ten countries as follows:

- JSPS Washington Office
- JSPS San Francisco Office
- JSPS Bonn Office
- JSPS London Office
- JSPS Stockholm Office
- JSPS Strasbourg Office
- JSPS Bangkok Office
- JSPS Beijing Office
- JSPS Cairo Research Station
- JSPS Nairobi Research Station
- JSPS Science Advisor in São Paulo

● Main functions

- (1) Collaborating with overseas academic promotion organizations
- (2) Holding symposia
- (3) Supporting the overseas activities of Japanese universities
- (4) Developing alumni networks among former JSPS program participants
- (5) Sharing academic information in Japan and gather information, such as scientific trends overseas
- (6) Supporting for researchers conducting fieldwork

Website

https://www.jsps.go.jp/english/about_us/overseas_office.html

● Joint Use of JSPS Overseas Offices

The offices provide an overseas foothold in support of efforts by Japanese universities to expand their international bases and activities by allowing their researchers and staffs to use the office facilities during their stays in the host countries. Providing these services are JSPS's offices in Washington DC, San Francisco, Bonn, London, Stockholm, Beijing, Cairo and Nairobi.

Support offered to universities by them include the following activities: (1) Holding symposiums in the host country, (2) conducting international collaborations, such as joint research or researcher exchanges, with local universities, (3) doing follow-up activities to maintain or further develop relationships with local universities, and (4) carrying out PR or information-gathering activities.

● Overseas Internships for University Administrative Staff

Yet another function of JSPS's overseas offices is to train international exchange specialists among the staffs of Japanese universities by providing them with internships for acquiring experience in carrying out international programs. During their internships, they are required to make a study and compile a report on a selected theme regarding international academic exchange.



Portal site on overseas scientific trends

Each of JSPS's overseas offices gathers and disseminates information on scientific trends in its host country and region.
<https://www-overseas-news.jsps.go.jp>



NRCT-JSPS-JAAT seminar
 (August 2018, Thailand Research EXPO 2018 in Bangkok)

Building a Comprehensive Academic Information Analysis Base

1 Building Centralized Information Consolidation and Management System

JSPS carries out a diverse range of programs to advance science including programs to fund research, foster researchers, and promote international scientific exchange. To support the activities of researchers from a cross-sectional and comprehensive perspective that transcends the borders of JSPS's programs, a base is

established within JSPS for conducting integrated analysis and application of information related to them. JSPS is working on centralizing its management with an aim to consolidating and sharing program-related data while ensuring information security and protecting personal information.

2 Promoting Comprehensive Academic Information Analysis

Center for Science Information Analysis

Purpose

As an institutional research department of JSPS, the Center for Science Information Analysis (CSIA) conducts surveys and analysis towards the improvement and advancement of JSPS programs while cross-sectionally using the information on the programs and comprehensively assessing/analyzing their trends and outcomes in a long-term perspective. It forwards these results to JSPS programs and offers proposals as well as disseminates information widely. The CSIA was established in April 2018.

Features

- (1) Under the supervision of the Director, Senior Researchers (part-time position, including one Deputy Director) assess the survey and analysis relating to the themes of their expertise, and provide advice on the survey and analysis conducted concerning the JSPS programs. Under the guidance of Senior Researchers, Researchers (full-time position) are responsible for carrying out survey and analysis related to the subject themes as well as administrative works in research analysis of, such as, the trends of programs.
- (2) Senior Researchers attend the meetings of Research Center for Science Systems (RCSS) when necessary. The CSIA holds liaison

conferences consisting of the stakeholders of external organizations to promote information sharing and cooperation.

- (3) The CSIA forwards the results of survey and analysis to JSPS programs, offers proposals and works for disseminating information widely in cooperation with the Public Relations Office.

Functions

- (1) **Conducting comprehensive and long-term assessment and analysis of JSPS's program trends and results**

The CSIA conducts surveys and analyses and compiles data on JSPS's programs. Senior CSIA researchers conduct an overall review the program activities and themes, while the Center's researchers carry out surveys and analyses on individual program themes and trends.

- (2) **Collaboration and information sharing with external organizations through liaison conferences**

Liaison conferences are held which bring together representatives of organizations that conduct scientific information analysis. The CSIA collaborates with these organizations in ways that transcend any one organization in the sharing of information.

- (3) **Offering proposals for enhancing JSPS programs based on the results of surveys and analyses**

The CSIA forwards the results of its surveys and analyses to RCSS and other cognizant JSPS divisions,

and offers proposals on ways to enhance the programs.

(4) Widely disseminating the results of surveys and analyses

In cooperation with JSPS's Public Relations Office, the CSIA disseminates the results of its surveys and analyses widely via JSPS's website.

Website

<https://www.jsps.go.jp/english/e-csia/index.html>

3 Research on Academic Trends

Research Center for Science Systems

Purpose

Situated within JSPS, the Research Center for Science Systems serves as a think tank for advancing science by frontline researchers. Established in July 2003, the Center provides recommendations and advice for enhancing JSPS's various programs, while participating in administration and operation of the selection processes and evaluation procedures of the Grants-in-Aid for Scientific Research, Research Fellowships for Young Scientists, and other JSPS programs.

Based on a recommendation, titled "System Reform in Competitive Research Funding," issued by the Council for Science and Technology Policy, Cabinet Office in April 2003, the Center is staffed by program directors, with eminent research experience, and program officers, laboring on the frontiers of scientific advancement, who take responsibility for implementing a range of competitive research funding systems.

Features

(1) Frontline researcher appointments

Frontline researchers in cutting-edge fields at Japanese universities and research institutions participate in the Center's administrative and operational activities. Conveyed through them, updated research trends and requests from research community are utilized in Center's operation.

(2) Reflecting the expert viewpoint of researchers

All fields, from Humanities and Social Science to Natural Science, are divided into 9 expert study teams corresponding to the characteristics of each specialized field. Each expert study team is made up of 2 to 3 principal investigators and 8 to 21 specialist researchers.

(3) Fair and impartial selection

Program officer appointments are for three years. As a rule, reappointments are not made. This term is set to help ensure fairness in the grant selection process. So as to preclude imbalances in the program officer makeup, effort is made to choose their replacements from different disciplines and research institutions, while improving the ratio of female researchers.

Program Groups	Humanities
Social Sciences	Mathematical and Physical Sciences
Chemistry	Engineering Sciences and Informatics
Information science	Biological Sciences
Agricultural and Environmental Sciences	Medical, Dental and Pharmaceutical Science

Functions

(1) Provide recommendations and advice on JSPS's overall program

For this purpose the Center holds periodic meetings. Twice a month, senior program officer meetings, attended by the Center's director, deputy directors, and the senior program officers of each research group, are convened to exchange and compile information and views and to formulate proposals

and advice from scientific perspectives on the full spectrum of JSPS's programs. Once a month, the program officers meet to exchange updated information and news on research in their respective fields and to consider ways of applying them to JSPS's operations.

Two program-improvement working groups are established within the Center, one for Grants-in-Aid for Scientific Research and the other for the JSPS Research Fellowships for Young Scientists. Each group meets once a month to consider ways of enhancing the solicitation and selection systems of their respective programs and to draft related recommendations for JSPS.

(2) Oversee application screening and project assessment for JSPS programs

① Grants-in-Aid for Scientific Research

Program officers prepare lists of examiner candidates and chair review meetings. They also examine to make improvements in the examiner selection processes and selection policies of its program. To ensure fairness and transparency, they do not participate in the screening or selection processes.

② JSPS Research Fellowships for Young Scientists

Program officers improve the quality of screening and evaluation in researcher training projects by making a list of examiner candidates, participating in screening meetings, and evaluating the performance of selected superlative postdoctoral (SPD) fellows. (Program officers are not involved in screening and selecting candidates).

Program officers also conduct preliminary reviews on the 'JSPS Prize' and 'Ikushi Prize' prior to selection by the review committee.

③ JSPS international exchange programs

Program officers carry out tasks needed for screening and evaluation such as preparing a list of examiner candidates.

④ Verification and analysis of screening results

Program officers for each specialized research group verify and analyze the examination results of various JSPS programs in each specialized field and use the findings to select fair and appropriate examiners for subsequent application rounds.

(3) Conduct surveys and studies of science policies and scientific research trends

The Center conducts surveys and studies on science promotion policies and scientific research trends and makes use of its findings to give suggestions and advice on JSPS programs and overall operations. The results of these surveys and studies are posted on the JSPS website (in Japanese).

Website

https://www.jsps.go.jp/j-center/chousa_houkoku.html

(4) PR and Reporting activities

The Center conducts briefings in response to requests from universities and academies throughout Japan to deepen understanding of Center activities within the researcher community.

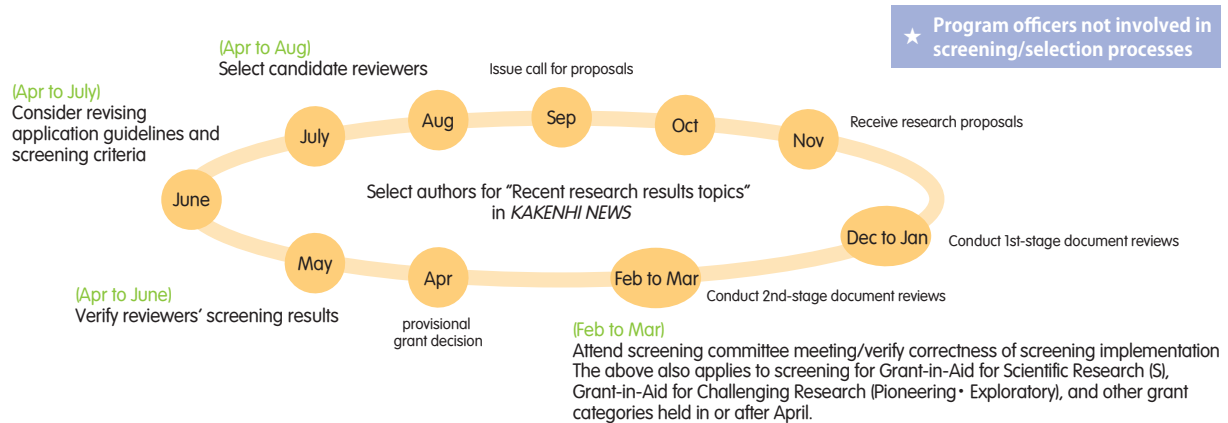


2019 Senior Program Officer

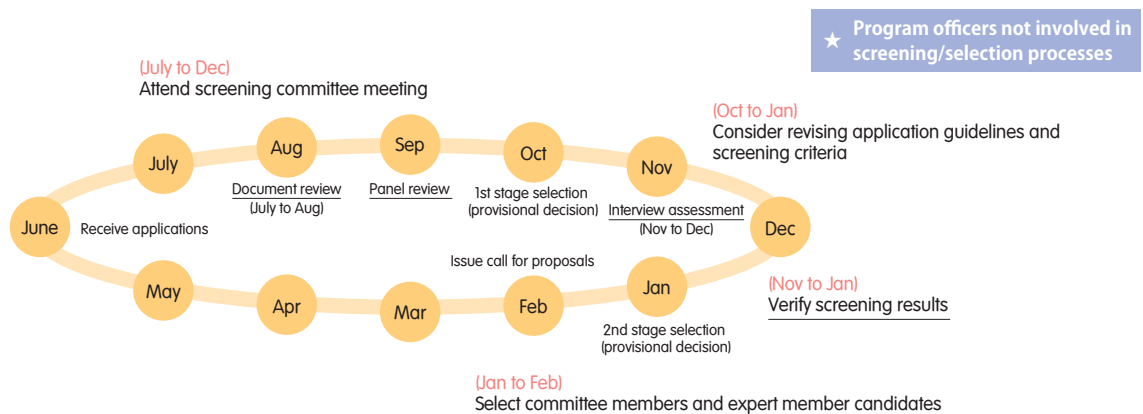
Website

<https://www.jsps.go.jp/english/e-center/index.html>

Role of Research Center for Science Systems in Grants-in-Aid for Scientific Research



Role of the Research Center for Science Systems in Research Fellowships for Young Scientists program



1 Promotion of Electronic Applications

The information system is used for JSPS calls for proposals to improve operational efficiency and reduce the burden on researchers, reviewers, and research institutes such as universities. In so doing, we ensure security to protect highly confidential information related to application and review. We have prepared and are actively promoting an

electronic application system to computerize the procedures of applications and review of calls for proposals as a measure for cost efficiency. This system cooperates with the Cross-Ministerial Research and Development Management System (e-Rad) as well.

2 Enhancement of Information Dissemination

(1) Enhancement of Information Dissemination

① Website

Targeting a wide range of both Japanese and overseas researchers, the website posts timely notices and updates on JSPS's programs, including prospectuses and application calls. Worded for a general usership, the website also provides information on the results of project selections and reports on their implementations.

Website

<https://www.jsps.go.jp>



② Publication of brochures and leaflets

JSPS publishes brochures to widely introduce its array of programs, about which information is disseminated via its website. Leaflets and posters of JSPS's major programs are also printed and distributed.

Targeting a wide readership including present and past JSPS program participants, overseas science-promotion organizations, and embassies in Japan,

this English-language newsletter "JSPS Quarterly" is issued four times a year on trends in science policy and research in Japan and on the activities of its overseas offices and alumni associations.



③ Mail Magazine (in Japanese)

As part of providing information over the Internet, we deliver the latest academic information, including JSPS calls for applications, once a month in our free e-mail magazine, "JSPS Monthly". The magazine not only completely covers all calls for applications but also provides efficient access to the latest information from our website.

Register for JSPS Monthly

<https://www.jsps.go.jp/j-mailmagazine/index.html>

- Published: 1st Monday of each month
- Format: text data

④ Social Media

JSPS posts animated promotion videos on YouTube to introduce JSPS and individual projects in order to visually appeal to a wide target audience. In addition, JSPS uses social networking services, such as Facebook, for HOPE Meetings and Frontiers of Science Symposia programs in order to centralize and expedite the dissemination of information on them and their recruitments.



YouTube "JSPS Supports Science"
(<https://www.youtube.com/user/jspsvideos>)

(2) Outreach, promotion, and use of discoveries in society

① HIRAMEKI☆TOKIMEKI SCIENCE –Welcome to a University Research Lab– Science That Inspires and Inspirts

Purpose

This program seeks to promote science study in Japan, ultimately advancing future research by cultivating intellectual curiosity and a rich sense of creativity in the young participants. Researchers talk with students in an easy-to-understand manner about their KAKENHI-funded research in order to convey the fun and fascination that is contained in science, and show society and the public the cultural value and societal importance of science. To date, sessions have been attended by about 68,000 students at 1,637 institutions over the course of the program.

Project Description / Features

● Sharing the results of KAKENHI academic research

These sessions are held via the KAKENHI program at universities and research institutions throughout Japan. At them, researchers talk to elementary, middle, and high school student in an easy-to-understand manner about their own creative and pioneering research, giving the students a deeper understanding of the significance of academics and its role in their daily lives. In FY2018, 277 sessions were held at 152 institutions, with a total attendance of about 6,000 students who will forge the future of Japan.

● Visit and Experience Program

From July to March the following year, mostly in summer vacation, students visit laboratories of university or research institution throughout the country for practical experience with experiments and fieldwork, allowing them to see, hear and touch cutting-edge research.

● Eligible participants

Fifth and sixth grade elementary, middle, and high school students can participate in these visits. Teachers of area schools interested in participating are also encouraged to visit and observe sessions.

Website

<https://www.jsps.go.jp/hirameki/index.html>



Toward biodiversity stewardship: lessons from among-individual variation and its ecological consequence
(August 2018, Hokkaido University)



What is a mosquito the unpleasant bug which appears in summer?
(July 2018, Kanazawa Medical University)

② Publishing Noteworthy Contributions to Science and Technology

Purpose

This program promotes the creation of tools for open access to previous outstanding research findings across all areas of academic research. The research findings of award recipients given by each academic society are placed in a database and separated into researcher oriented and general public oriented categories, for easier retrieval and understanding, for the purpose of widely spreading outstanding research results.

This database, entitled ‘Database on Noteworthy Contributions to Science and Technology’, is available on the National Institute of Informatics website.

Features

The database is categorized by field, with each research findings divided into three categories: ‘Experts’ category for researchers and corporate engineers, “Introductory” category for junior high students or above, ‘English’ category for overseas researchers and corporate engineers. Charts, diagrams, and photographs are included in the data.

Contents

Established within JSPS, a program committee comprised of sets program policy and oversees its implementation.

As for division of labor, academic societies compile the data to be posted, the National Institute of Informatics maintains and operates the database, and JSPS convenes committee meetings, coordinates program activities, and performs public relations and administrative functions.

Fields	Participating Societies
Mathematics	The Mathematical Society of Japan
Physics	Nishina Memorial Foundation The Japan Society of Applied Physics
Chemistry	The Chemical Society of Japan
Mechanical Technologies	The Japan Society of Mechanical Engineers
Electrical Technologies	The Institute of Image Information and Television Engineers
	Information Processing Society of Japan
	The Illuminating Engineering Institute of Japan
	The Institute of Electrical Engineers of Japan
	The Institute of Electronics, Information and Communication Engineers
Materials Science	The Society of Polymer Science, Japan
	The Japan Institute of Metals and Materials
	The Ceramic Society of Japan
Civil Engineers	Japan Society of Civil Engineers
Architecture	Architectural Institute of Japan
Life Science	The Japanese Biochemical Society
	Japan Bioindustry Association
Agriculture	Association of Japanese Agricultural Scientific Societies
Pharmaceutical Science	The Pharmaceutical Society of Japan
Medical Sciences	The Japanese Cancer Association
—	Toray Science Foundation
	Inamori Foundation
	The Japan Prize Foundation

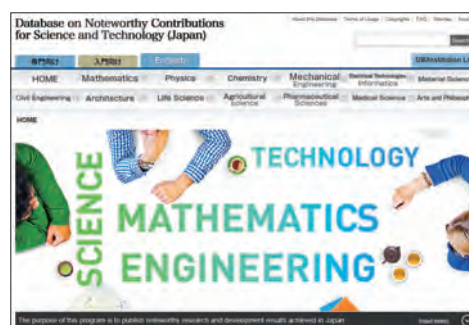
Website

Publishing Noteworthy Contributions to Science and Technology

<https://www.jsps.go.jp/j-takuetsu/>
(Available only in Japanese)

Database on Noteworthy Contributions for Science and Technology

<https://dbnst.nii.ac.jp/english>



3 University-Industry Research Cooperation, Societally Applied Scientific Linkage and Collaboration

(1) University-Industry Cooperative Research Collaboration Meeting

Purpose

This program works to provide a platform between the academic and industrial sectors for collaboration in both basic and applied research. Established in 1933, the program is operated by an advisory committee of members from both sectors. It seeks to promote cooperation and linkage in areas of science that will exert a positive impact on society.

Contents

(1) University-Industry Cooperative Research Committees

These committees comprise frontline researchers from the academic and industrial sectors who work in close liaison to advance bottom-up initiatives based on their own free ideas while exchanging views and information on basic, applied and developmental research in their area of specialization, all within a free and informal atmosphere.

As of April 2019, there were 71 committees in active operation (5,000 total members: 3,000 from academia, 2,000 from industry).

(2) Committees for Research Promotion in Specialized Areas and Frontier Research and Development Committees

These committees study and deliberate (1) research topics deemed to merit future advancement and (2) cutting-edge topics of anticipated high demand within the academic and industrial communities.

Website

https://www.jsps.go.jp/renkei_suishin/index.html

University-Industry Cooperative Research Committees

Committee Name
19th Committee on Steelmaking
24th Committee on Foundry Technology
36th Committee on Industrial Instrumentation
54th Committee on Ironmaking
69th Committee on Materials Processing and Applications
76th Committee on Construction Materials
108th Committee on Business Administration
111th Committee on Development on the Utilization of Minerals
116th Committee on Chemistry Creating Organic Compounds with Novel Functions
117th Committee on Carbon Materials
118th Committee on Industrial Structure: Small and Medium Business
120th Committee on Processing for Functionality of Fibers and Polymers
123rd Committee on Heat Resisting Materials and Alloys
124th Committee on Advanced Ceramics
125th Committee on Conversion between Light and Electricity
129th Committee on Strength and Fracture of Advanced Materials
130th Committee on Optoelectronics
131st Committee on Thin Films
132nd Committee on Electron and Ion Beam Science and Technology
133rd Committee on Microstructures and Functions of Materials
134th Committee on Colour Fastness Tests
136th Committee on Future-Oriented Machining
139th Committee on Properties of Steam
141st Committee on Microbeam Analysis
142nd Committee on Organic Materials Used in Information Science and Industry
143rd Committee on Process Systems Engineering
145th Committee on Processing and Characterization of Crystals
146th Committee on Superconductive Electronics
147th Committee on Amorphous and Nano-Crystalline Materials
148th Committee on Coal and Carbonaceous Resources Utilization Technology
150th Committee on Acoustic Wave Device Technology
151st Committee on Advanced Nanodevice and Nanomaterial Technology
153rd Committee on Plasma Materials Science
154th Committee on Semiconductor Interfaces and Their Applications
155th Committee on Fluorine Chemistry
157th Committee on Structural Response Control and Monitoring
158th Committee on Vacuum Nanoelectronics
160th Committee on Plant Biotechnology for the Environment, Food and Resources
161st Committee on Science and Technology of Crystal Growth
162nd Committee on Wide Bandgap Semiconductor Photonic and Electronic Devices
163rd Committee on Internet Technology
164th Committee on Genome Technology
165th Committee on Ultra Integrated Silicon Systems

University-Industry Cooperative Research Committees

Committee Name
166th Committee on Photonic and Electronic Oxide Materials
167th Committee on Nano-Probe Technology
169th Committee on Structural Biology using Diffraction Techniques
170th Committee on Redox Life Innovation
171st Committee on Optical Network System Technology
172nd Committee on Alloy Phase Diagrams
173rd Committee on Switching Power Supply System for Coming Era
174th Committee on Molecular Nanotechnology
175th Committee on Innovative Photovoltaic Power Generating Systems
176th Committee on Process Created Materials Function
177th Committee on System Design and Integration
178th Committee on Plant Molecular Design
179th Committee on Photonics Information Systems
180th Committee on Risk-Based Asset Management
181st Committee on Multifunctional Molecular Electronics
182nd Committee on Terahertz Science, Technology and Industrial Development
183rd Committee on Advanced Water Science and Engineering
185th Committee on Optical Imaging Technique Development
186th Committee on Radiation Science and Its Applications
187th Committee on Metamaterials
188th Committee on Electromagnetic-Field-Excited Reaction Fields
189th Committee on New trend of chemical biology in Japan
190th Committee on Hydrogen Function Analyses in Materials
191st Committee on Innovative Interface Bonding Technology
192nd Committee on Cyber Security
193th Measurement and Characterization Platform
194th Advanced Molecular Transformations by Molecular Catalysts
195th Utilization and biological effects of radiation

Committees for Research Promotion in Specialized Areas

Committee Name
New Value Creation of Autonomous and Cooperative-Type Advanced Measurement using "AI" (April 2018 to March 2021)
Diverse STEM Workforce Engagement Research (April 2018 to March 2021)
Supply Grain Risk Strategy: Resource Logistics (October 2018 to September 2021)
Fusion of network infrastructures of electric power and information communication towards the super smart society (October 2018 to September 2021)

Frontier Research and Development Committees

Committee Name
Nanoporous Materials and their Applications into Society
Innovation Science for Envisioning Future
Strategic development of pre-disease markers as indices for food-aided modulation of homeostasis
Perspective of Nuclear Technology Development in Future and Its Social Consensus

(2) Donations

Purpose

JSPS receives contributions for the purpose of supporting researchers and advancing scientific research.

Features

Established within JSPS is a special trust for receiving donations and funding activities. Donations made to JSPS enjoy a tax-exempt status. Contributions are received from corporations, groups and individuals, and are used to carry out various endowed programs. These include the following:

Contents

(1) Special Science Promotion Fund

Donations are made by private companies, organization and individuals in support of JSPS's research funding, researcher support, international scientific cooperation, and other science-promotion programs, especially those for which there is an urgent or special need for funding.

(2) Fujita Memorial Fund for Medical Research

The family of the late Dr. FUJITA Noboru donated money to establish this Fund, which is used to award grants to young researchers in the field of surgical medicine.

(3) Proxy Collection of Funds to Support Holding International Scientific Meetings

JSPS lends its tax-exempt status to organizations holding international academic conferences.

Website

<https://www.jsps.go.jp/j-donation/index.html>

4 Promoting Research Integrity

Purpose

Many research achievements are obtained using Grants-in-Aid and other competitive research funding. Measures, however, are sought to counter misconduct in the execution of such research activities.

Accordingly, MEXT issued “Guidelines for Responding to Misconduct in Research” in August 2014. They obligate all researchers participating in research activities supported by competitive funding or other funding to take a course in research-ethics. For that purpose, a program is being carried out to enhance and promulgate research-ethics education in Japan. This effort includes developing and distributing standardized learning materials for researchers and holding training sessions to hone the knowledge and capability of persons in charge of conducting research-ethics education at universities and other institutions.

Contents

(1) Developing and Distributing Research-Ethics Educational Materials

To promote the proper conducting of research activities while precluding research misconduct, research-ethics education materials are developed and promulgated. At present, they take two forms.

- ① The book *For the Sound Development of Science—The Attitude of a Conscientious Scientist (Green Book)* has been published by Maruzen in both English and Japanese versions.
- ② Based on the Green Book and learning materials derived from it, an e-Learning Course on Research Ethics (eL CoRE) has been developed and is now provided over the Internet as a service to make research-ethics education available to anyone, anywhere, anytime.



(2) Enhancing Research-Ethics Education

Symposiums and other meetings are held to add vigor to research-ethics education, and support is provided to enhance the practicability of research-ethics education.

For examples:

- ① As symposium was held via cooperation between the Japan Science and Technology Agency (JST) and Japan Agency for Medical Research and Development (AMED).
- ② To more effectively put “eL CoRE” training into practice, a research-ethics seminar was held that included workshop experience.



Symposium on Research Integrity “Lessons from the innovative efforts in research-ethics education” (November 2018, Tokyo)



The first JSPS Seminar on Research-Ethics “Introducing group work into research-ethics education” (November 2018, Tokyo)

(3) Providing Consulting Services for Preventing Research Misconduct

Consultation is provided to research institutions on the establishment of systems for preventing research misconduct and advice is given them on how to investigate and process reported cases of specific misconduct.

Budget

FY2019: ¥0.04 billion

Website

<https://www.jsps.go.jp/j-kousei/index.html>

List of Programs

	Program			Term	Support	Charge section	Page
I Creating Diverse World-Level Knowledge	Grants-in-Aid for Scientific Research (KAKENHI)			1-6 years (differs by category)	Differs by category	University-Industry Cooperation and Research Program Division, Research Aid Planning Division, Research Aid Division I, II	4
	Bilateral Collaborations (Joint Research Projects and Seminars)			Joint research: 1-3 years Seminars: within 1 week (differs by country or agency)	Joint research: ¥1-3 million a year per project Seminars: ¥1.2-2.5 million (differs by countries or agencies)	International Research Cooperation Division II	11
	Researcher Exchange Program (Dispatch)			6 months-2 years (differs by countries or agencies)	Roundtrip international airfare, maintenance allowance (differs by countries or agencies)	Overseas Fellowship Division	12
	Japanese-German Graduate Externship			Up to 5 years	Up to ¥15 million a year per project	International Research Cooperation Division II	12
	International Joint Research Programs			A maximum of 3 or 5 years (depending on the program)	Up to ¥10 million a year per project	International Research Cooperation Division II	12
	Core-to-Core Program		A. Advanced Research Networks	Up to 5 years	Up to ¥18 million a year per project	International Research Cooperation Division I	13
			B. Asia-Africa Science Platforms	Up to 3 years	Up to ¥8 million a year per project	International Research Cooperation Division I	14
	A3 Foresight Program			Up to 5 years	Up to ¥50 million / 5 years per project	International Research Cooperation Division I	15
	Topic-Setting Program to Advance Cutting-Edge Humanities and Social Sciences Research		Area Cultivation	3 years	¥5 or 10 million a year per theme	University-Industry Cooperation and Research Program Division	16
			Responding to Real Society		¥5 or 10 million a year per theme		
		Global Initiatives		¥10 or 20 million a year per theme			
Program for Constructing Data Infrastructure for the Humanities and Social Sciences			Up to 5 years	¥30 million a year per hub	University-Industry Cooperation and Research Program Division	19	
II Fostering the Next Generation of Researchers to Pioneer Knowledge	Research Fellowships for Young Scientists			2-5 years	Fellowship: ¥200,000-446,000 per month Research grant: ¥1.5 to 3 million per year CPD recipients also receive round-trip airfare	Research Fellowship Division	20 23
	Overseas Research Fellowships			2 years	Fellows receive round-trip airfare, housing/research stipend (approximately ¥4.5 million – ¥6.2 million/year depending on destination). RRA recipients also receive round-trip airfare and allowance for each accompanying child (approximately 10% of housing/research stipend).	Overseas Training Program Division	22
	Overseas Challenge Program for Young Researchers			3 months-1 year	Up to ¥15 million a year per project	Bilateral Cooperation Division	23
	Program for Fostering Globally Talented Researchers			3 years (includes the support period of 'Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers'	Up to ¥40 million/year/project (up to ¥25 million for 1st year)	Overseas Training Program Division	24
	JSPS International Fellowships for Research in Japan	JSPS Postdoctoral Fellowships for Research in Japan	A. Summer program B. Strategic program C. Short-term D. Standard	A. 2 months in summer B. 2-12 months C. 1-12 months D. 12-24 months	Roundtrip international airfare, maintenance allowance etc. (differs by category)	Overseas Fellowship Division	26
		JSPS Invitational Fellowships for Research in Japan	E. Long-term F. Short-term	E. 2-10 months F. 14-60 days			
	RONPAKU (Dissertation PhD) Program			3 years	Roundtrip international airfare, etc.	Overseas Fellowship Division	28
	Science Dialogue			Ongoing	Cost of teaching materials, domestic travel	Overseas Fellowship Division	29
	HOPE Meetings - Five days with Nobel Laureates			About 5 days	Domestic travel, food/ lodging, other participation costs	International Research Cooperation Division I	35
	Young Researcher Support for Attending Lindau Nobel Laureate Meetings			About 1 week	Roundtrip international airfare, travel expenses, meeting participation costs including food/ lodaina	International Research Cooperation Division I	36

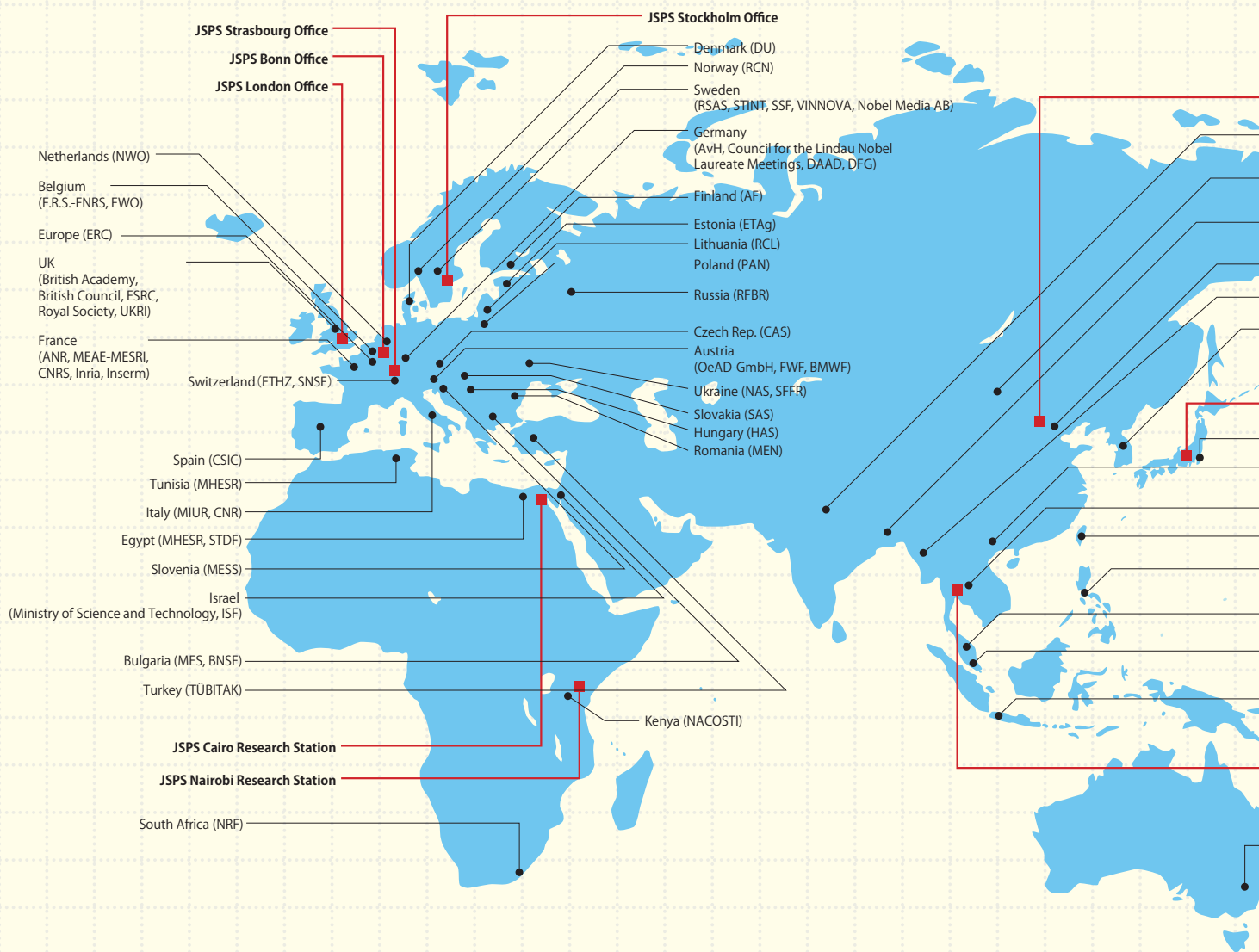
	Program		Term	Support	Charge section	Page
II Fostering the Next Generation of Researchers to Pioneer Knowledge	International Seminars		Seminars: 7-14 days Workshops: Up to 3 days	Up to ¥8 million per project	International Research Cooperation Division II	36
	Nobel Prize Dialogue		1 day	Admission free of charge	International Research Cooperation Division I	37
	Frontiers of Science (FoS) Symposia		3 days	Roundtrip international airfare, domestic travel, food/lodging	International Research Cooperation Division I	38
	Leading Initiative for Excellent Young Researchers (LEADER)		Up to 5 years	<p>[A] ① Research expenditures : Year 1 and 2 after adoption: Up to ¥6 million/year/researcher (Up to ¥4 million/year for humanities and social science fields) ② Costs of building research environment: Year 1 to 5 after adoption: Up to ¥2 million/year/researcher</p> <p>[B] Industry-academia collaboration activity expenditures: Year 1 to 5 after adoption: As much as a half of the industry-academia collaboration activity expenditures shouldered by a company based on the contract regarding the joint research, etc., with up to ¥10 million/year/researcher. ※ Companies choose [A] or [B]</p>	Research Fellowship Division	39
III Harnessing University Strengths to Enhance Education and Research Capability	World Premier International Research Center Initiative (WPI)		10 years	¥1.4 billion a year per project selected in FY 2007 and 2010 Up to ¥700 million a year per project selected in FY 2012, 2017 and 2018	WPI Program Center	41
	Program for Leading Graduate Schools		Up to 7 years	From ¥270-540 million a year per project	University Cooperation Program Division	43
	WISE Program		7 years (overall and individual programs evaluated in year 4, final disposition study in year 8)	¥Up to 423 million a year per project	University Cooperation Program Division	44
	Acceleration Program for University Education Rebuilding (AP)		Up to 6 years	Up to ¥18-28 million a year per project	University Cooperation Program Division	45
	Program for Promoting Regional Revitalization by Universities as Centers of Community (COC+Program)		Up to 5 years	Up to ¥68 million a year per project	University Cooperation Program Division	47
	Inter-University Exchange Project		Up to 5 years	Up to ¥10-40 million a year per project (in the first year)	University Cooperation Program Division	48
	Top Global University Project		Up to 10 years	Up to ¥200-500 million a year per project	University Cooperation Program Division	49
IV Building a Robust International Research Base	BRIDGE Fellowship Program		14-30 days	A round-trip air ticket, daily maintenance allowance, research support allowance	International Policy Planning Division	52
VI Cross-sectional Issues	HIRAMEKI ☆ TOKIMEKI SCIENCE –Welcome to a University Research Lab– Science That Inspires and Inspirts		During period from July to March	Up to ¥500,000 per program	University- industry Cooperation and Research Program Division	60
	Publishing Noteworthy Contributions to Science and Technology				University- Industry Cooperation and Research Program Division	61
	Fujita Memorial Fund for Medical Research		1 year	¥1 million per project	University- Industry Cooperation and Research Program Division	63
	Proxy Collection of Funds to Support Holding International Scientific Meetings	Contributions collected under JSPS's status as "special public-interest promotion corporation"	Within 2 years		Institutional Research and Information Division Public Relations Office	63
		Contributions collected as specified tax-exempt donations	Within 1 year			
	Promoting Research Integrity				Research Integrity and Auditing Office	64

List of JSPS Overseas Counterpart Institutions (98 institutions)

Region / Country		Counterpart Institutions	Fellowships	Bilateral Programs		Multilateral and Other Program
			Postdoctoral Fellowship	Researcher Exchanges	Research Projects/Seminars	
Asia	Bangladesh	University Grants Commission of Bangladesh (UGC)			✓	
		Bangladesh Academy of Sciences (BAS)				✓
	China	Chinese Academy of Sciences (CAS)			✓	
		Chinese Academy of Social Sciences (CASS)			✓	
		Ministry of Education (MOE)		✓		✓
		Ministry of Science and Technology (MOST)	✓			
		National Natural Science Foundation of China (NSFC)			✓	✓
		China Scholarship Council (CSC)		✓		
	India	Department of Science and Technology (DST)	✓	✓	✓	✓
		Indian Council of Historical Research (ICHR)			✓	
		Indian Council of Social Science Research (ICSSR)			✓	
		The Indian National Science Academy (INSA)	✓			
	Indonesia	Directorate General of Resources for Science, Technology and Higher Education, Ministry of Research, Technology and Higher Education (DG-RSTHE)			✓	
		Indonesian Institute of Sciences (LIPI)			✓	✓
	Korea, Rep.	National Research Foundation of Korea (NRF)			✓	✓
	Malaysia	Vice-Chancellors' Council of National Universities in Malaysia (VCC)				✓
	Mongolia	Ministry of Education, Culture, Science and Sports (MECSS)				✓
	Myanmar	Ministry of Education				✓
	Philippines	Department of Science and Technology (DOST)			✓	✓
	Singapore	National University of Singapore (NUS)			✓	✓
	Thailand	National Research Council of Thailand (NRCT)			✓	✓
	Vietnam	Ministry of Science and Technology (MOST)			✓	
		Vietnam Academy of Science and Technology (VAST)			✓	✓
	Taiwan	Academia Sinica				✓
Oceania	Australia	Australian Academy of Science (AAS)	✓			✓
		Australian Research Council (ARC)				✓
	New Zealand	Ministry of Business, Innovation and Employment (MBIE)				✓
		The Royal Society of New Zealand (RSNZ)	✓		✓	✓
Africa	Egypt	Ministry of Higher Education and Scientific Research (MHESR)				✓
		Science and Technology Development Fund (STDF)			✓	
	Kenya	National Commission for Science, Technology and Innovation (NACOSTI)			✓	✓
	South Africa	National Research Foundation (NRF)			✓	✓
	Tunisia	Ministry of Higher Education and Scientific Research (MHESR)			✓	
Europe	Austria	Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH)	✓			✓
		Austrian Science Fund (FWF)			✓	
		Federal Ministry of Science and Research (BMWF)				✓
	Belgium	Fonds de la Recherche Scientifique-FNRS (F.R.S.-FNRS)	✓		✓	
		Research Foundation-Flanders (FWO)	✓		✓	
	Bulgaria	Ministry of Education and Science of Bulgaria (MES)	✓			✓
		The Bulgarian National Science Fund (BNSF)				✓
	Czech	Czech Academy of Sciences (CAS)	✓		✓	
	Denmark	Universities Denmark (DU)				✓
	Estonia	Estonian Research Council (ETAg)	✓			
	Finland	Academy of Finland (AF)	✓	✓	✓	
	France	French National Research Agency (ANR)				✓
		Ministry for Europe and Foreign Affairs - Ministry of Higher Education, Research and Innovation (MEAE-MESRI)			✓	
		National Center for Scientific Research (CNRS)	✓			✓
		National Institute for Research in Computer Science and Automation (Inria)			✓	
		National Institute of Health and Medical Research (Inserm)			✓	

Region / Country		Counterpart Institutions	Fellowships	Bilateral Programs		Multilateral and Other Program
			Postdoctoral Fellowship	Researcher Exchanges	Research Projects/ Seminars	
Europe	Germany	Alexander von Humboldt Foundation (AvH)	✓			✓
		Council for the Lindau Nobel Laureate Meetings				✓
		German Academic Exchange Service (DAAD)	✓		✓	
		German Research Foundation (DFG)			✓	✓
	Hungary	Hungarian Academy of Sciences (HAS)	✓		✓	
	Italy	Ministry of Education, University and Research (MIUR)	✓			
		The National Research Council (CNR)			✓	
	Lithuania	The Research Council of Lithuania (RCL)			✓	
	Netherlands	Netherlands Organisation for Scientific Research (NWO)			✓	✓
	Norway	The Research Council of Norway (RCN)	✓	✓		
	Poland	Polish Academy of Sciences (PAN)	✓		✓	
	Romania	Ministry of National Education (MEN)				✓
	Russia	Russian Foundation for Basic Research (RFBR)			✓	
	Slovakia	Slovak Academy of Sciences (SAS)	✓			✓
	Slovenia	Ministry of Education, Science and Sport (MESS)	✓		✓	
	Spain	Spanish National Research Council (CSIC)				✓
	Sweden	Nobel Media AB				✓
		Royal Swedish Academy of Sciences (RSAS)	✓			✓
		The Swedish Foundation for International Cooperation in Research and Higher Education (STINT)	✓		✓	
		Swedish Foundation for Strategic Research (SSF)	✓			
		Swedish Governmental Agency for Innovation Systems (VINNOVA)	✓			
	Switzerland	ETH Zurich (ETHZ)	✓	✓		
		Swiss National Science Foundation (SNSF)	✓			✓
	UK	The British Academy	✓			
		The British Council	✓			
		The Royal Society	✓		✓	✓
		Economic and Social Research Council (ESRC)				✓
		UK Research and Innovation (UKRI)				✓
	Ukraine	The National Academy of Sciences of Ukraine (NAS)	✓			
		The State Fund for Fundamental Researchers (SFFR)			✓	
	Europe	European Research Council (ERC)		✓		
North America	Canada	Canadian Embassy (CE)	✓			
		Natural Sciences and Engineering Research Council of Canada (NSERC)	✓			
		Mitacs	✓			
		Social Sciences and Humanities Research Council (SSHRC)				✓
		Royal Society of Canada (RSC)				✓
		Canadian Institute For Advanced Research (CIFAR)				✓
	USA	National Academy of Sciences (NAS)				✓
		National Institutes of Health (NIH)	✓			
		National Science Foundation (NSF)	✓			✓
Social Science Research Council (SSRC)		✓				
Central/ South America	Argentina	National Council of Scientific and Technological Research (CONICET)				✓
	Brazil	Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES)			✓	
	Chile	Chilean National Commission for Scientific and Technological Research (CONICYT)				✓
	Mexico	National Council on Science and Technology (CONACYT)				✓
Middle East	Turkey	The Scientific and Technological Research Council of Turkey (TÜBİTAK)			✓	✓
	Israel	Ministry of Science and Technology				✓
		Israel Science Foundation (ISF)			✓	
International Organizations		United Nations University(UNU)	✓			

Map of JSPS Overseas Offices and Counterpart Institutions



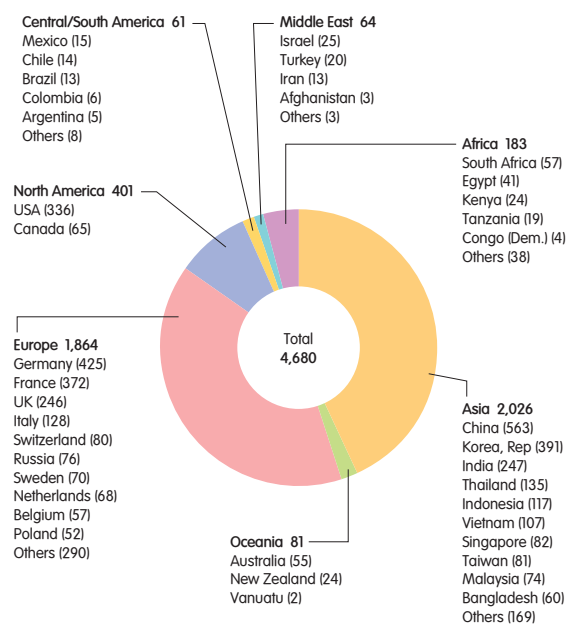


Number of Researchers Exchanged

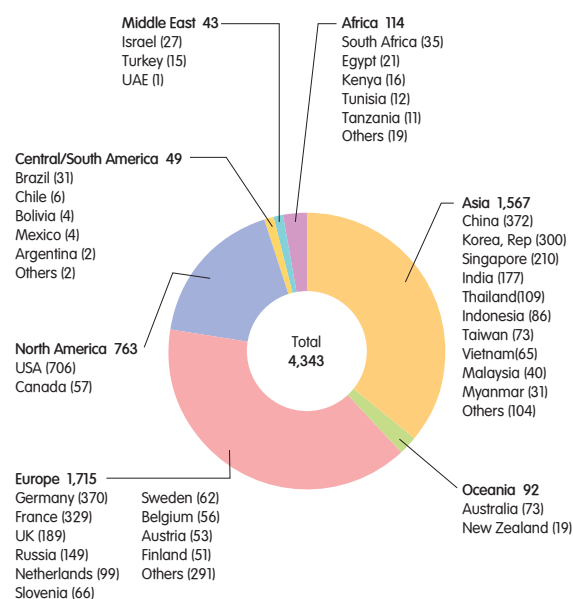
Program Region / Country		Foreign Researchers Invited to Japan												Japanese Researchers Sent Abroad											
		Invitational Fellowships						Postdoctoral Fellowships	Bilateral/ Multilateral and Other Programs		Total			Overseas Research Fellowships			Bilateral/ Multilateral and Other Programs			Total					
		Short-term			Long-term																				
FY	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018				
Total		259	211	182	97	96	79	1,126	1,142	1,150	2,894	2,321	3,269	4,376	3,770	4,680	411	405	388	5,022	4,885	3,955	5,433	5,290	4,343
Asia	India	11	9	7	7	7	6	95	97	106	199	142	128	312	255	247		1	2	126	151	175	126	152	177
	Indonesia	1		1				5	6	11	98	87	105	104	93	117				133	116	86	133	116	86
	Cambodia								1	1	5	1	9	5	2	10				33	29	14	33	29	14
	Singapore	1		3				2	2	2	46	48	77	49	50	82	1	3	2	63	68	208	64	71	210
	Sri Lanka	1	1	1				2	2	1	15	5	2	18	8	4				4	12	15	4	12	15
	Thailand	1	2	1			2	11	7	5	113	101	127	125	112	135				160	221	109	160	221	109
	Korea, Rep	7	2	5	7	6	2	52	49	41	282	271	343	348	328	391	1	1		500	354	300	501	355	300
	China	37	18	14	14	7	5	159	187	196	639	374	348	849	586	563	3	2	1	453	402	371	456	404	372
	Nepal							7	10	9	5	5	6	12	15	15				4	6			4	
	Pakistan	1						5	5	4	2	1		8	6	4					1				1
	Bangladesh	4	1	2	8	2	4	36	33	31	19	20	23	67	56	60				13	16	14	13	16	14
	Timor-Leste											1									1				1
	Philippines						1	6	3	5	41	28	26	47	31	32				31	60	28	31	60	28
	Bhutan				1						5	3		6	3					4	1	1	4	1	1
	Vietnam		1		1	1	1	20	17	17	56	45	89	77	64	107	1	1		131	72	65	132	73	65
	Malaysia	4		2			1	3	6	7	8	13	38	61	23	46	74			84	77	40	84	77	40
	Myanmar					3	3	3	2	1	7	9	40	10	14	44				18	36	31	18	36	31
	Mongolia			2	2	1		2	5	6	15	19	18	19	25	26				32	51	13	32	51	13
	Laos										5	6	34	5	6	34				12	11	13	12	11	13
	Taiwan	2	3	2	1	1	1	26	22	22	63	69	56	92	95	81	2	2	2	71	81	71	73	83	73
Oceania	Australia	17	7	5	4	3	1	28	26	22	40	22	27	89	58	55	10	7	4	58	60	69	68	67	73
	New Zealand	2	1		2	2	2	6	5	4	38	20	18	48	28	24			2	60	48	17	60	48	19
Europe	Vanuatu												2			2				1	2		1	2	
	Iceland			1									1			2					1	3		1	3
	Ireland	1	1		1			2	1	3	1		3	5	2	6				1	2		1	2	
	Azerbaijan			1												1									
	Armenia									1	1			1		1									
	Italy	11	16	5	4	3	4	49	44	52	51	24	67	115	87	128	4	5	8	125	97	42	129	102	50
	Ukraine			1				1	5	6	7	9	2	1	14	8	10			28	13	13	28	13	13
	Uzbekistan							2	2				2	8	2	4	8				9				9
	UK	15	19	16	4	3	1	65	74	76	54	47	153	138	143	246	29	34	42	269	259	147	298	293	189
	Estonia							3	3	4	1		1	4	3	5									
	Austria	4	3	1			1	2	2	3	8	7	20	14	12	25	8	6	4	38	35	49	46	41	53
	Netherlands	2	3	4		2	1	7	7	6	29	18	57	38	30	68	10	9	5	40	77	94	50	86	99
	Kazakhstan							1	1	1	1	1	3	2	2	4		1	1	2	1	7	2	2	8
	Cyprus							1	3	4		2		1	5	4				2	1	1	2	1	1
	Greece			2		1	1	7	5	3				7	6	6				3	4	2	3	4	2
	Kyrgyz											2				2					3				3
	Croatia	1						1	2	3			1	2	2	4				1	4		1	4	
	Georgia			1							4	4		4	4	1				2	1		2	1	
	Switzerland	4						9	9	12	24	25	68	37	34	80	21	20	10	115	84	39	136	104	49
	Sweden	5	5	1				19	19	19	38	31	50	62	55	70	4	4	4	77	68	58	81	72	62
	Spain	3	10	5		1	1	27	29	30	9	9	8	39	49	44	1	2	2	34	21	24	35	23	26
	Slovakia			1				2	2	2				2	2	3				1			1		
	Slovenia				1			6	5	6	14	19	14	21	24	20				19	32	66	19	32	66
	Serbia					1			1	1			1		3	1									
	Czech	1		2		1		4	5	7	16	29	21	21	35	30			1	27	39	25	27	39	26
	Denmark	1	2	2				2	3	2	11	36	8	14	41	12	1	1	4	18	32	12	19	33	16
	Germany	25	19	13	3	4	2	77	73	80	202	177	330	307	273	425	36	41	38	416	427	332	452	468	370
	Norway	4						1	1		2	5		10		3				15	10	7	15	10	7
	Hungary	1	1	2		1	1	15	10	5	30	20	24	46	32	32				42	35	21	42	35	21
	Finland	1	1		2	1		5	3	5	36	4	28	44	9	33	1	1	1	60	41	50	61	42	51
	France	12	13	14	7	12	4	100	94	99	225	185	255	344	304	372	20	16	22	343	405	307	363	421	329
	Bulgaria	2		1				5	6	7				7	6	8				1	4	3	1	4	3
	Belgium	1	4	3				5	6	8	18	15	46	24	25	57	7	3	1	38	53	55	45	56	56
	Belarus									2			3			5						3			3
	Bosnia-Herzegovina										1					1									
	Poland	3	1	1	1	1	1	12	17	15	15	16	36	31	35	52			1	40	38	39	40	38	40
Portugal	3	1	1				1	4	4	1	1	4	5	6	9		1	1	3	11	1	3	12	2	
North Macedonia	1												1												
Malta									1	1				1	1										
Moldova							1						1												
Latvia									1					1					4				4		
Lithuania	1	1				1	1	2	1	8	9	4	10	12	6				10	21	21	10	21	21	
Romania						1	2	1	1			2	2	1	4										
Luxembourg										1					1										
North America	Russia	9	6	1	5	3	4	6	4	3	63	66	68	83	79	76	2	1		128	152	149	130	153	149
	Canada	14	10	5	4	5	4	19	22	34	13	37	22	50	74	65	19	16	17	87	53	40	106	69	57
USA	31	38	42	11	13	10	128	123	79	110	86	205	280	260	336	226	224	207	789	685	499	1,015	909	706	
Central / South America	Argentina	1	2	3	1			3	3	1	1	2	1	6	7	5				3	4	2	3	4	2
	El Salvador																								

Program		Foreign Researchers Invited to Japan																Japanese Researchers Sent Abroad								
		Invitational Fellowships						Postdoctoral Fellowships			Bilateral/ Multilateral and Other Programs			Total			Overseas Research Fellowships			Bilateral/ Multilateral and Other Programs			Total			
Region / Country	FY	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	
Middle East	Afghanistan							1	1			3	4	3	4	5	3									
	UAE											3			3					1	3	1	1	3		
	Yemen												1			1										
	Israel	2	5	3				1	2	1	5	7	21	8	14	25	2	1	2	1	18	25	3	19	27	
	Iraq									1						1										
	Iran	2		1			1	8	8	11			1		10	9	13				1		1			
	Qatar																									
	Saudi Arabia																			2			2			
	Syria							1	1	1					1	1	1									
	Turkey	3	2					2	4	6	18	9	14	23	15	20			1	27	20	14	27	20	15	
	Jordan	1								1					1	1										
Lebanon																										
Palestine																										
Africa	Algeria							1				3			4											
	Uganda										8	3	2	8	3	2				7	2		7	2		
	Egypt	3	1	1	2	7	7	12	11	16	20	15	17	37	34	41				35	40	21	35	40	21	
	Eswatini																		2	2		2	2			
	Ethiopia							2	1	2	1	5		3	6	2				8	5		8	5		
	Ghana										4	1	2	4	1	2				2	5	4	2	5	4	
	Cameroon				1			3	1	1	2	1		6	2	1				2	9		2	9		
	Gabon										1			1												
	Guinea										1		3	1		3				3	3		3	3		
	Kenya										10	11	24	10	11	24	1	1		26	34	16	27	35	16	
	Congo (Dem.)										3	5	4	3	5	4				2	4	2	2	4	2	
	Zambia										3	2	4	3	2	4				3	7	8	3	7	8	
	Sierra Leone										3	2	2	3	2	2										
	Zimbabwe							1	1					1	1											
	Sudan										1	2	1	1	2	1				8	5		8	5		
	Senegal												1		1											
	Tanzania						1				3	3	18	3	3	19				19	41	11	19	41	11	
	Tunisia							4	3	2	36			40	3	2				22	12		22	12		
	Nigeria				1	1	1	2	2	1	1	4		4	7	2				9	1		9	1		
	Namibia																			1	1		1	1		
	Burkina Faso										6	1	2	6	1	2				5			5			
	Burundi												2		2		2									
	Benin								1	1					1	1										
	Botswana												4			4				3		3	3		3	
	Madagascar									1		2			2	1				2	1		2	1		
	Malawi							1	1					1	1											
	Mali							1	1					1	1											
	South Africa	1									31	36	57	32	36	57				45	25	35	45	25	35	
	Mozambique								1	1					1	1						1				
	Morocco							1	1	1				1	1	2										
	Liberia																				1			1		
	Rwanda										1		3	1		3										

Foreign Researchers → Japan (FY2018)



Japanese Researchers → Abroad (FY2018)



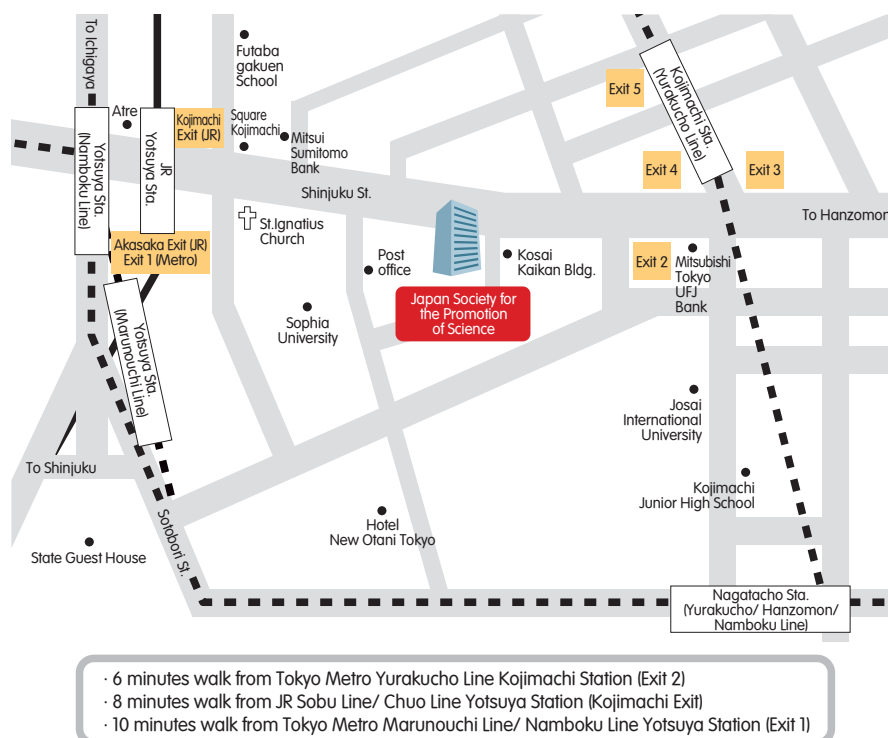
Japan Society for the Promotion of Science

Kojimachi Business Center Building, 5-3-1 Kojimachi,
Chiyoda-ku, Tokyo 102-0083
<https://www.jsps.go.jp/>

	Telephone	Facsimile
General Affairs Division	+81-3-3263-1722	+81-3-3221-2470
Budget and Accounting Division	+81-3-3263-2083	+81-3-3237-8238
Policy Planning Division	+81-3-3263-3461	+81-3-3237-8236
Institutional Research and Information Division	+81-3-3263-2365	+81-3-3237-8483
Public Relations Office	+81-3-3263-1842	+81-3-3237-8483
International Research Cooperation Division I	+81-3-3263-1826	+81-3-3234-3700
International Research Cooperation Division II	+81-3-3263-1769	+81-3-3234-3700
Overseas Fellowship Division	+81-3-3263-2368	+81-3-3234-3700
University Cooperation Program Division	+81-3-3263-0994	+81-3-3237-8015
Research Fellowship Division	+81-3-3263-3576	+81-3-3222-1986
Overseas Training Program Division	+81-3-3263-1943	+81-3-3237-8305
University-Industry Cooperation and Research Program Division	+81-3-3263-4645	+81-3-3263-1716
Research Aid Planning Division	+81-3-3263-0964	+81-3-3263-9005
Research Aid Division I	+81-3-3263-0976	+81-3-3263-9005
Research Aid Division II	+81-3-3263-1431	+81-3-3263-1824
International Policy Planning Division	+81-3-3263-1798	+81-3-3234-3700
Research Integrity and Auditing Office	+81-3-3263-5104	+81-3-3237-8238
Research Center for Science Systems	+81-3-3263-1882	+81-3-3237-8236
Center for Science Information Analysis	+81-3-3263-1971	+81-3-3237-8483
Center for World Premier International Research Center Initiative (WPI Program Center)	+81-3-3263-0967	
Center for Constructing Data Infrastructure for the Humanities and Social Sciences	+81-3-3263-4645	+81-3-3263-1716

JSPS Overseas Offices / JSPS Science Advisor

■ USA	JSPS Washington Office 2001 L Street N.W., Suite 1050, Washington, D.C. 20036, USA Tel: +1-202-659-8190 Fax: +1-202-659-8199 E-mail: info@jspsusa.org http://www.jspsusa.org
	JSPS San Francisco Office 2001 Addison Street, Suite 260, Berkeley, CA 94704, USA Tel: +1-510-665-1890 Fax: +1-510-665-1891 E-mail: webmaster@jspsusa-sf.org http://www.jspsusa-sf.org
■ Germany	JSPS Bonn Office Wissenschaftszentrum, Ahrstr. 58, 53175, Bonn, GERMANY Tel: +49-228-375050 Fax: +49-228-957777 E-mail: info@jsps-bonn.de http://www.jsps-bonn.de
■ UK	JSPS London Office 14 Stephenson Way, London NW1 2HD, UK Tel: +44-20-7255-4660 Fax: +44-20-7255-4669 E-mail: enquire@jsps.org http://www.jsps.org
■ Sweden	JSPS Stockholm Office Retzius Vag 3, S-171 65 Solna, SWEDEN Tel: +46-8-5248-4561 Fax: +46-8-31-38-86 E-mail: jsps-sto@jsps-sto.com http://www.jsps-sto.com
■ France	JSPS Strasbourg Office Maison Universitaire France - Japon 42a, avenue de la Forêt-Noire, 67000 Strasbourg, FRANCE Tel: +33-3-6885-2017 Fax: +33-3-6885-2014 E-mail: jsps@unistra.fr http://jsps.unistra.fr
■ Thailand	JSPS Bangkok Office No. 1016/3, 10th Fl., Serm-mit Tower, 159 Sukhumvit Soi 21, Bangkok 10110, THAILAND Tel: +66-2-661-6533 Fax: +66-2-661-6535 E-mail: jspsbkk@jsps-th.org http://www.jsps-th.org
■ China	JSPS Beijing Office A404, China Foreign Language Mansion, No.89 Xisanhuan Beilu, Haidian District, Beijing 100089, P.R.CHINA Tel: +86-10-8882-4331 Fax: +86-10-8882-4332 E-mail: beijing@jsps.org.cn http://www.jsps.org.cn
■ Egypt	JSPS Cairo Research Station 9 Al-Kamel Muhammad Street Flat No.4 Zamalek, Cairo, EGYPT Tel & Fax: +20-2-27363752 E-mail: webmaster@jpspscairo.com http://jpspscairo.com/
■ Kenya	JSPS Nairobi Research Station House Number 3, Windy Ridge Heights on L. R. No.195/31 and 28, Off Dagoretti Road, 3D Lane, Karen, Nairobi, KENYA Tel: +254-20-4348000 E-mail: jsps1@africaonline.co.ke https://www.jspsnairobi.org
■ Brazil	NINOMIYA Masato, JSPS Science Advisor in São Paulo E-mail ninomiya@jspsbr.org https://www.jsps.go.jp/english/saopaulo/index.html



Crowing Rooster, Emblem of the Japan Society for the Promotion of Science



From days of old in Japan, it has been the belief that the vigorous cry of the rooster in the gray of the morning augurs the coming of a new and bright day. As the crowing rooster can therefore be thought of as a harbinger of the kind of new knowledge that promises a brilliant future for humankind, it was chosen as the emblem of the Japan Society for the Promotion of Science. This emblem was designed in 1938 by Professor WADA Sanzo of Tokyo Fine Arts School to depict the rooster that symbolizes the breaking dawn in a verse composed by Emperor Showa.

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