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JSPS 2018-2019

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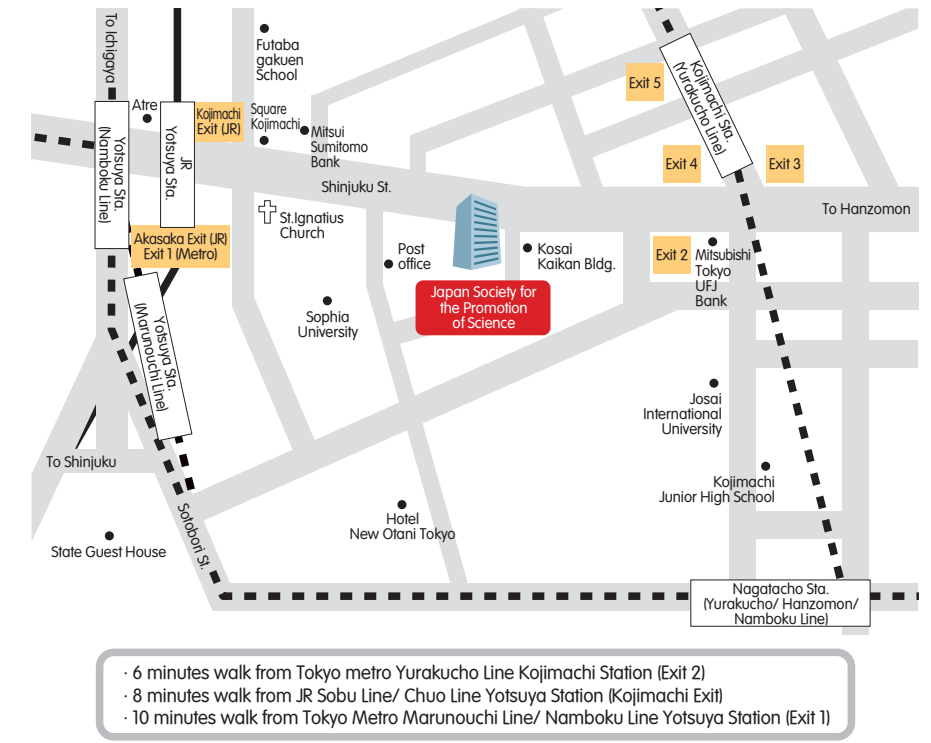
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Message from JSPS President



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 World-class Knowledge in Diverse Fields, 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.

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 unrelentingly 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.

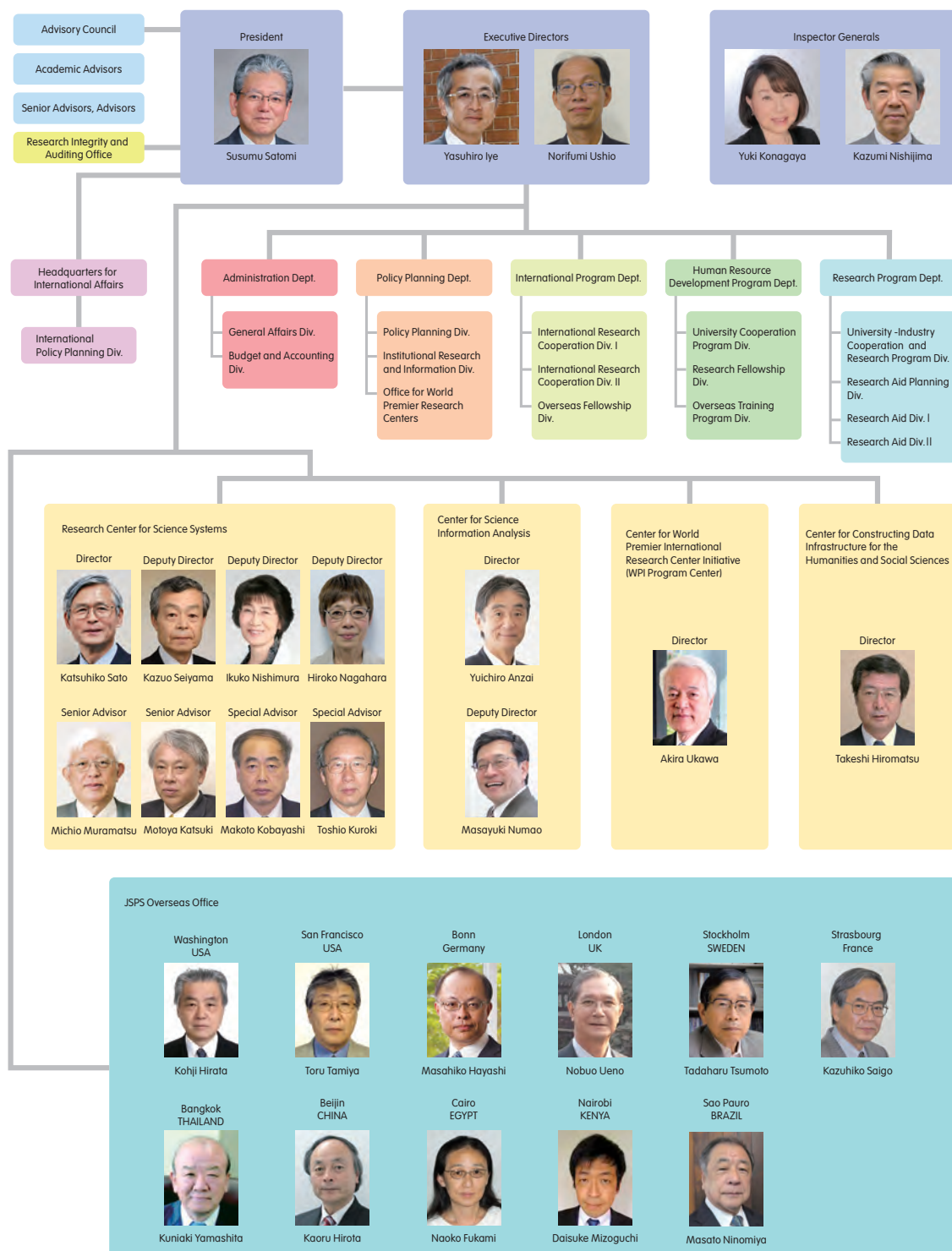
December, 2018

Susumu Satomi, Ph. D.

Organization

Organization

As of Dec. 2018



JSPS's Institutional Transition

December 1932 : JSPS established as a foundation through an endowment of ¥1.5 million by the late Emperor Showa.

September 1967: JSPS converted into a quasi-government organization.

October 2003 : JSPS converted into an independent administrative institution.

Budget

JSPS budget for the 2018 fiscal year totaled ¥261.4 billion. This includes ¥26.6 billion operating expense subsidies from the National Treasury, ¥141.7 billion in subsidies for Grants-in-Aid for Scientific Research, and ¥2.4 billion for the “Leading Initiative for Excellent Young Researchers” program. Also included is ¥89.7 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.

Budget transition FY 2012-2018



FY 2018 Budget by program

(Unit: billion yen)

Direct funding	
Government subsidies for JSPS as an Independent Administrative Institution	26.6
Research fellowships for young scientists	18.5
International scientific cooperation programs	6.0
Research application programs	0.6
Research Center for Science Systems	0.6
General administration	0.9
Grants-in-Aid for Scientific Research	141.7
Leading Initiative for Excellent Young Researchers	2.4
From Commissioned Program, etc.	1.0
Multi-year Fund for Grants-in-Aid	89.7
Total	261.4

A "Multi-year Fund for Grants-in-Aid" was established in FY 2011. (FY 2018 budget is ¥89.7 billion)

Transition in number of JSPS executives and employees

	2014	2015	2016	2017	2018
Executive	5	5	5	5	5
Full-time employee	149	149	157	166	163

Numbers on 1 April of each fiscal year

Creating World-class Knowledge in Diverse Fields

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 ¥228.6 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 November 2018)

Research Categories	Purposes and description of each research category	Issuer M: MEXT J: JSPS	Status FY2018		Period for accepting FY2018 call for proposals	Provisional grant decision FY2018 (newly adopted proposals) ¹⁾	
			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. (The research period is 3 to 5 years. In a truly necessary case, period up to 7 years is acceptable.) The budget ranges from 200 million to 500 million yen per project (only in a truly necessary case, budget exceeding 500 million yen is asked for).	J	105	12	9/1-11/8	4/23	
Scientific Research on Innovative Areas ^{3,5}	(Research in a proposed research area) This category is intended to foster novel research areas proposed by diverse groups of researchers that are expected to lead to development and heightening of Japan's research level in the respective fields, to be conducted by collective research efforts through collaboration, scholarly training, shared use of equipment, etc. (The period is 5 years. The budget range is generally set between 10 million to 300 million yen per fiscal year per proposed area.)	Call for Proposals: M Review: M Grant Delivery: J	6,158	1,011	9/1-11/8	6/29	
Scientific Research ^{3,4,5}	(S) Creative/pioneering research conducted by one or a relatively small number of researchers. (The period is 5 years. The budget ranges from 50 to 200 million yen per project.)	J	704	80	9/1-11/8	6/11	
	(A), (B), (C) Creative/pioneering research conducted by one researcher or jointly by multiple researchers. (The period is 3 to 5 years.) (Classification of (A) / (B) / (C) is according to the budget range.)	(A) (B)	2,454 11,577	605 2,965		4/1	
	(A) 3 to 5 years 20 million to 50 million yen (B) 3 to 5 years 5 million to 20 million yen (C) 3 to 5 years 5 million yen or less	(C)	43,587	12,175			
Challenging Research ^{3,5}	(Pioneering) (Exploratory) Research conducted by a single or multiple researchers that aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development. The scope of the (Exploratory) category encompasses research proposals that are highly exploratory and/or are in their budding stages. The research period and total budget range are as follows: (Pioneering) 3 to 6 years 5 million to 20 million yen (Exploratory) 2 to 3 years 5 million yen or less	J	Pioneering	823	82	9/1-11/8	6/29
	Exploratory		11,811	1,426			
Early-Career Scientists ³	Research conducted by an individual researcher (*) who is less than 8 years after Ph.D. acquisition. As an interim measures, a non-Ph.D. researcher who is 39 years old or younger can also apply. (*) Individuals who are in the prospect of acquiring Ph.D. are also eligible. When counting the years after Ph.D. acquisition, the period of maternity leave and childcare leave can be excluded. (The period is 2 to 4 years. The budget is up to 5 million yen per project.)	J	20,369	6,256	9/1-11/8	4/1	
Research Activity Start-up	Research conducted by a single researcher who has been freshly appointed to a research position, or who has returned from his/her maternity, childcare or other kinds of leave. (The period is up to 2 years. The budget is up to 1.5 million per fiscal year.)	J	3,749	950	3/1-5/9	8/24	
Encouragement of Scientists	Research conducted by an individual who is ineligible for application for other KAKENHI categories (e.g. individuals who belong to educational or research institutions, private companies, etc. and engage in the researches to contribute to the promotion of the science). (The period is 1 year. The budget range is between 100 thousand and 1 million yen per project.)	J	3,657	561	9/1-11/8	4/1	
Grant-in-Aid for special Purposes ¹⁾	Funding of research projects of pressing urgency and importance. (e.g. investigation of natural disaster)	Call for Proposals: M Review: M Grant Delivery: J					
Grant-in-Aid for Publication of Scientific Research Results							
Publication of Research Results	Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations.	J	89	44	9/1-11/13	4/1	
Enhancement of International Dissemination of Information	Subsidy 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	Subsidy for academic publication of research results (books) authored by an individual or a group of researchers.	J	747	271			
Databases	Subsidy 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 ^{6,8}	Funding for research conducted by JSPS Fellows (including Foreign JSPS Fellows). (The period is up to 3 years.)	J	1st recruitment	2,308	2,308	1/19-2/23	4/25
			2nd recruitment	2	2	1/19-2/23	7/1
			3rd recruitment	28	28	5/14-6/7	7/25
			4th recruitment	3	3	1/19-2/23	10/1
			5th recruitment	64	64	8/16-9/11	10/12
			6th recruitment	139	139	9/25-10/18	11/9
			7th recruitment	-	-	1/19-2/23	-
Fund for the Promotion of Joint International Research							
Fostering Joint International Research ^{7,8}	(A) Support of joint international research project conducted by a KAKENHI grantee in collaboration with researcher(s) at foreign university or research institution. Over a period of 6 to 12 months. The grant seeks to markedly advance research plans for the root research project and to foster independent researchers who can be internationally competitive. (The budget is up to 12 million yen.)	J	(A)	605	201	7/1-9/5	1/25
	(B) Support of joint international research project conducted by multiple domestic researchers and researcher(s) who belongs to overseas research institution. In addition to the development of scientific research, the grant seeks to build out infrastructure of joint international research or further strengthen joint international research and to foster researchers who can be internationally competitive. (The period is 3 to 6 years. The budget is up to 20 million yen.)		(B)	2,335	234	4/2-5/31	10/9
International Activities Supporting Group	Support of international activities within Scientific Research on Innovative Areas. (Set period of the Area, up to 15 million yen per year) *After FY2018 call for proposal, "International Activities Supporting Group" will be incorporated into "Grant-in-Aid for Scientific Research on Innovative Areas Administrative Group".	Call for Proposals: M Review: M Grant Delivery: J	-	-	-	-	
Home-Returning Researcher Development Research ⁷⁾	Support of research to be conducted by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institution in Japan. (The period is up to 3 years. The budget is to 50 million yen.)	J	36	8	9/1-11/8	3/23	
Generative Research Field	This category set for "Scientific Research (B/C)" is open to research proposals for which screening within the conventional framework of research fields may be difficult and/or to applicants who prefer their proposals to be screened from a broader perspective relevant to the Generative Research Field. (The research period that can be applied for differs depending on the year of application.) *After the call for proposals in FY2018, setting of a new field is suspended. (FY2018 call for proposal is only for the 6 fields established in FY2016 and FY2017.)	J	1,218	100	9/1-11/8	7/18	

¹ 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.

² Provisional grant decision for continued projects under "Grants-in-Aid for Scientific Research" and "Publication of Scientific Research Results" are issued on 1 April 2018. Those for projects under "Grant-in-Aid for JSPS Research Fellows" are issued on 25 April 2018.

³ All projects under "Scientific Research (C)", "Challenging Research (Exploratory)" and "Early-Career Scientists" are funded through the Multi-year Fund.

⁴ For projects under "Scientific Research (B)" adopted between FY2012 and FY2014, those with total funding of ¥5 million or less come under the Multi-year Fund.

⁵ 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."

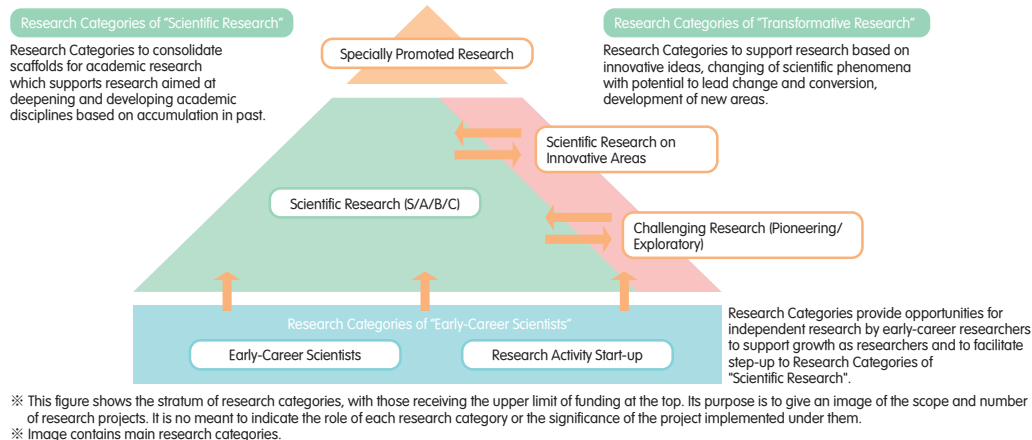
⁶ The mark "—" appears in the Applied and Selected columns under "Grant-in-Aid for JSPS Research Fellows." It indicates dates and/or numbers that are not yet decided due to recruitment/adoption processes in progress.

⁷ Data shown in "Fund for the Promotion of Joint International Research (Fostering International Joint Research (A) and Home-Returning Researcher Development Research)" is for FY2017.

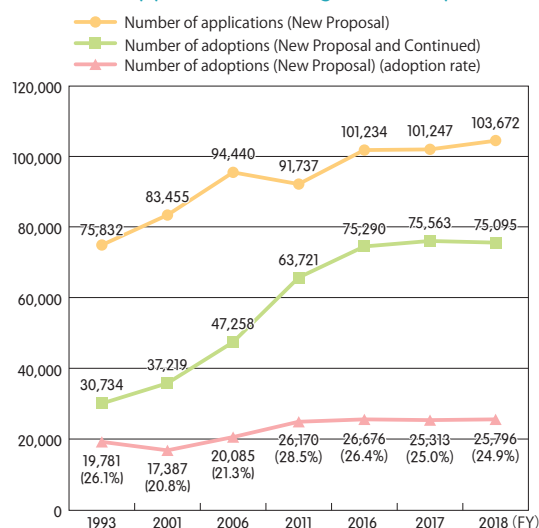
⁸ Application calls for the 3rd, 5th and 6th recruitments under "Grant-in-Aid for JSPS Research Fellows" and "Fund for the Promotion of Joint International Research (Fostering International Joint Research (B))" are issued in FY 2017. (Call for proposals for the other research categories began in FY 2016.)

⁹ 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 2018



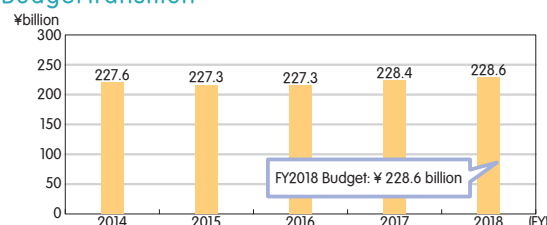
Number of applications and grants adoption



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. FY2018 budget is ¥228.6 billion (Increased ¥200 million from the previous year).

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 (2016- 2021) embodies content including from the quantitative perspective of setting a goal to increase the adaption rate to 30%.

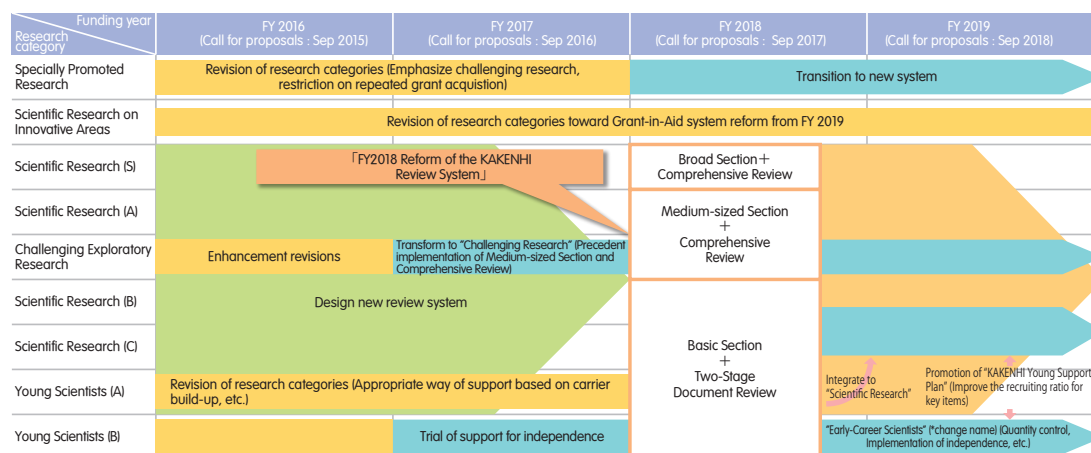
(1) KAKENHI Reform

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.

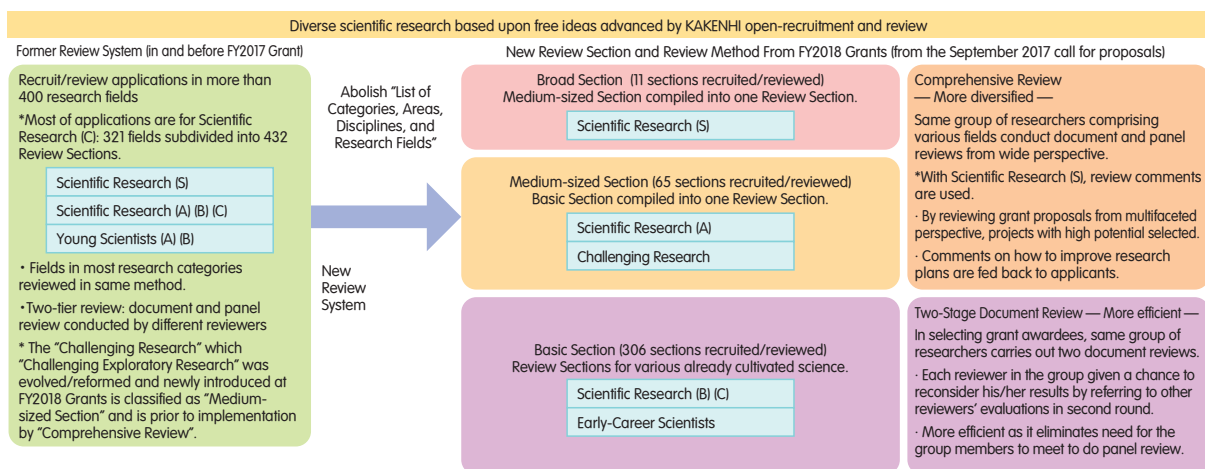
Against this backdrop and toward the Grants-in-Aid for Scientific Research for fiscal 2018 (from the September 2017 call for proposals), we have revised KAKENHI Review Section and Review Method in the

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.

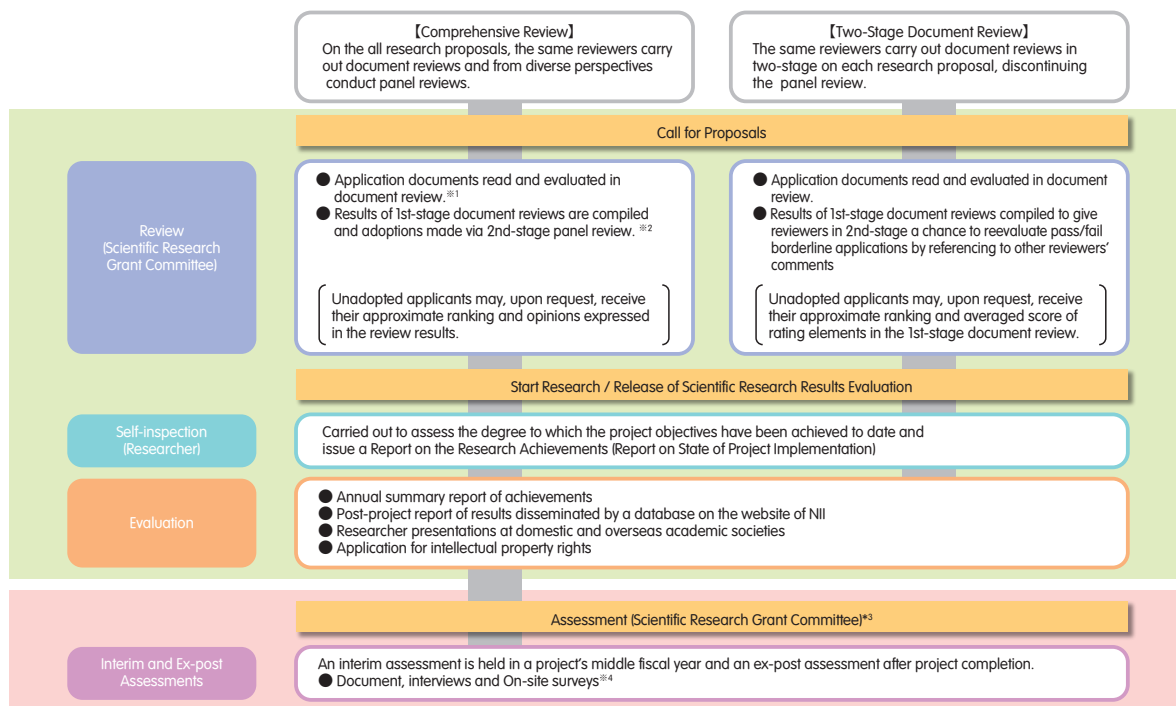
Summary - FY2018 Reform of the KAKENHI Review System



※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.

*Main projects covered under the Multi-Year Fund in FY2018.

- Research projects adopted under Scientific Research (C), Challenging Research (Exploratory), Early-Career Scientists, Grant-in-Aid for Special Purposes, Fund for the Promotion of Joint International Research (Fostering Joint International Research (A / B), Home-Returning Researcher Development Research)
- Research projects adopted under the Challenging Exploratory Research in and before FY2016
- Research projects adopted under the Young Scientists (B) in and before FY2017
- Research projects adopted under the Scientific Research (B) (application section "Generative Research Fields") in and after FY2015
- Research projects adopted under the Fostering Joint International Research (International Activities Supporting Group) in and before FY2016

- 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.

* Main projects covered under the Adjustment Fund in FY2018.

- Research projects adopted under Specially Promoted Research,

Scientific Research in Innovative Areas (excluding projects adopted in and before FY2016 under the Fund for the Promotion of Joint International Research (International Activities Supporting Group)), Scientific Research (S / A), Challenging Research (Pioneering), and Research Activity Start-up

- Research projects adopted in and before FY2011 or in and after FY2015 under Scientific Research (B) (excluding the application section "Generative Research Fields"), and Young Scientists (A)

- 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%.

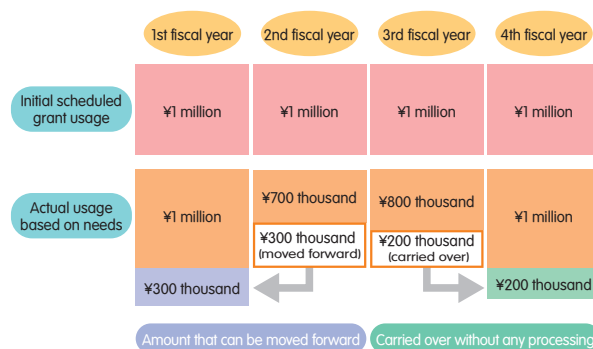
Other System Enhancements

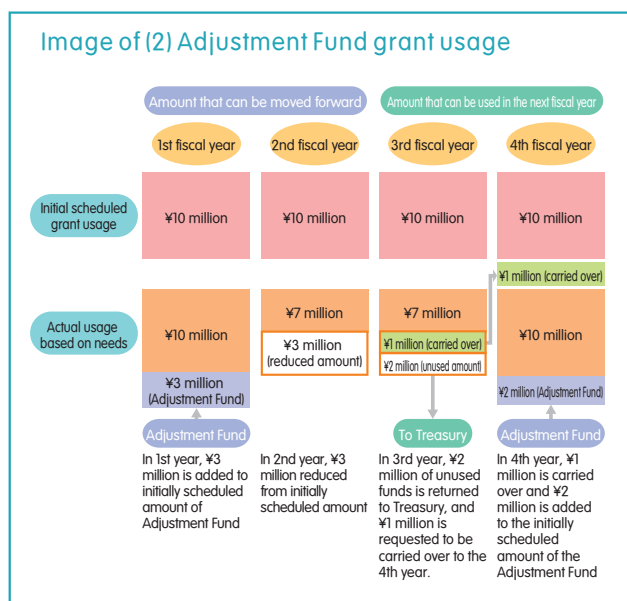
(1) Purchasing Joint-Use Equipment with a Mixture of Grant-in-Aid Funds

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

Image of (1) Multi-year Fund grant usage





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.

http://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 Collaboration

(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.

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.

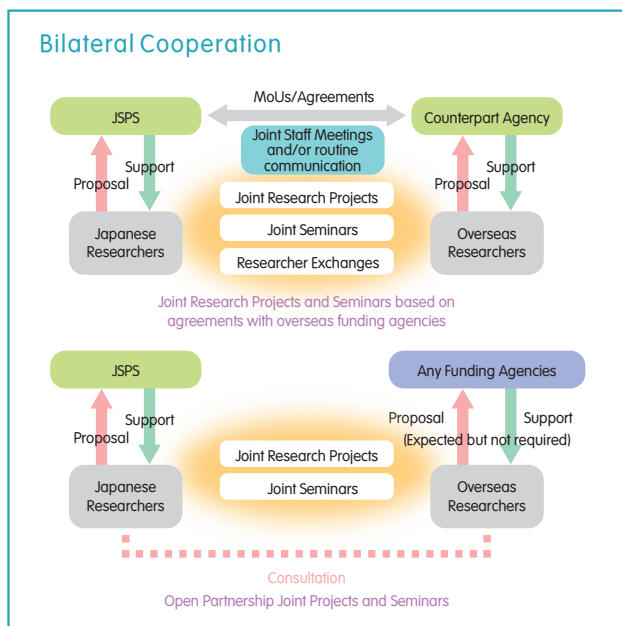
Website:

<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

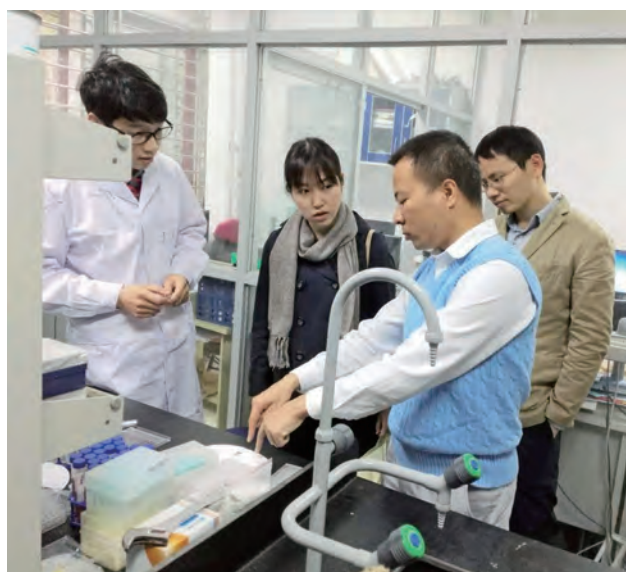
Supported fields vary depending on each country's counterpart agencies and application categories. With some counterpart agencies, we have adopted a new framework based on the "Lead Agency Method" in which one agency leads the screening.

Programs

The five 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>



Joint Research Projects with China (NSFC) (Prof. Yoshimichi Ohki, Waseda University)
"Characterization on the dielectric properties in the interface layer of the nanocomposites"

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	Social sciences			2~3 years
Joint Research Projects with SNSF (JRPs)	Switzerland/SNSF	FY2016: Humanities, social sciences, biology, medicine/dentistry FY2019: Mathematical/physical sciences, chemistry, engineering, 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			

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 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



After seminar at CERELA-CONICET, the Argentina hub in Oct. - Nov. 2017
(Photo by Tohoku University, Graduate School of Agriculture)



Young researchers attend a lecture at an International Conference, "Chiral Life Science"
(Photo by Hiroshima University CResCent, Chirality Research Center)

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.

Type A. 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.



"3rd Chulalongkorn Eye Center – Kyoto Prefectural University of Medicine Joint Meeting" at Chulalongkorn University
(Photo by Kyoto Prefectural University of Medicine)

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.

Researcher exchange activity chaired by Prof. Yoshan Moodley, the coordinator for the Republic of South Africa hub in March 2018
(Photo by Oita University School of Medicine)



Examining old manuscripts at Kokand Regional Studies Museum, History Department
(Photo by Aichi University of the Arts)



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



1st Japan-Africa Meeting at Oita University Faculty of Medicine in Nov. - Dec. 2017
(Photo by Oita University School of Medicine)

② A3 Foresight Program

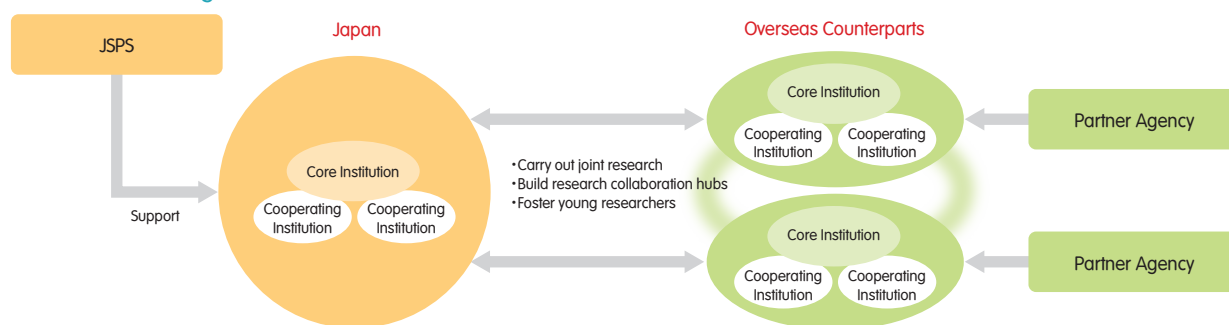
JSPS, the National Research Foundation of Korea (NRF) and the National Natural Science Foundation of China (NSFC) work as a consortium in supporting trilateral research projects that advance research on both a global level and on common regional issues while working to foster talented young researchers. 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>

Core-to-Core Program



JSPS A3 Foresight Program

Themes	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



13th International Symposium on the Genetics of Industrial Microorganisms
(Photo by The University of Tokyo, Graduate School of Agricultural and Life Sciences/Faculty of Agriculture)



Third A3 Foresight Symposium on "Chemical and Synthetic Biology of Natural Products" at Hotel North City, Sapporo, presentation by Prof. Tomohisa Kuzuyama (The University of Tokyo)
(Photo by The University of Tokyo, Graduate School of Agricultural and Life Sciences/Faculty of Agriculture)

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 Program

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 Program

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 Program

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

FY2018: ¥382.26 million (Including Constructing Data Infrastructure for the Humanities and Social Sciences funds)

Website

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

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	Masanori Takezawa	Associate Professor, Graduate School of Letters, Hokkaido University
	Exploration of "humanities and social science for symbiotic society" driven by neuropsychology of hyper brain functions	Shinichi Koyama	Professor, Faculty of Art and Design, University of Tsukuba
	Understanding of individual mental identity using the multidimensional and multidisciplinary cognitive behavior analysis	Makoto Ichikawa	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	Hideki Ohira	Professor, Graduate School of Informatics, Nagoya University
	Wisdom of crowds as emergent intelligence: Social and personal innovation by group decision making	Jun Saiki	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	Tsuyoshi Matsuda	Professor, Graduate school of Humanities, Kobe University
	Theoretical and Practical Study for new RRI Framework: a study series of education, evaluation, and politics	Ryuma Shineha	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	Keiichi Yamazaki	Professor, Graduate School of Humanities and Social Sciences, Saitama University
	Resonating space, appearing aesthetics	Kiyoshi Furukawa	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	Shinobu Nakagawa	Professor, Osaka University of Arts
Research Area D: The cultural and social role of SHIKOHIN	Should we question today the last eating and drinking culture	Nobuhiro Ito	Assistant Professor, Graduate School of Humanities, Nagoya University
	What is Shikouhin? An interdisciplinary research and development of literature database on Shikouhin	Toyohiko Matsubara	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	Keiko Ishii	Associate Professor, Graduate School of Informatics, Nagoya University

(As of April 2018)

(For reference) Selected projects in FY2014

Topic-setting research: 2 projects

Openly recruited research: 11 projects

New Extension

Selected Projects under "Responding to Real Society" in FY2015

Topic-setting research (New: 2 projects, Extension: 0 projects)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Interrelationship between institutions, culture, public spirit, and socioeconomic systems	The Effects of Institutions and Culture on Social Norms and Public Morality: Laboratory and Field Experiments	Masaru Sasaki	Professor, Graduate School of Economics, Osaka University
Formation of an "illness culture" and analysis of its present-day significance- Considering the history of societal development	History of Medicine and the Present Society: Contextualization of the Past Measures against Infectious Diseases and Construction of Dialogues between Medical Historians and the Contemporary Agencies	Akihito Suzuki	Professor of History, School of Economics, Keio University

Openly recruited research (New: 9 projects, Extension: 1 project)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Interrelationship between institutions, culture, public spirit, and socioeconomic systems	Process design for public decision making in complex situations involving conflicts between individual profit and public benefit	Susumu Ohnuma	Associate Professor, Department of Behavioral Science, Graduate School of Letters, Hokkaido University
	Modeling and Implementation Study of Effective and Sustainable Disaster Tradition	Shosuke Sato	Assistant professor, International Research Institute of Disaster Science, Tohoku University
	Project on the Impact and Effectiveness of Poverty Reduction Programs for Children and Adolescents	Aya Abe	Professor, Graduate School of Humanities, Tokyo Metropolitan University
	A Study of Interconnectedness between Konbu Culture in Japan and Economic Connections of the Places for Producing Konbu in Hokkaido	Takayuki Saito	Lecturer, liberal arts, Hokkaido Musashi Women's Junior College
	Research on the Society with Empathy and Creation of New Industry by Social Business	Tadashi Yagi	Professor, Graduate School of Economics, Doshisha University
Building an anxiety-free care system in a shrinking society; Establishing a lifeline infrastructure	Standard Evaluating Comprehensive Plan for Medical Care and Long-Term Care --- from two viewpoints of utilizing home	Tomoyuki Kato	Professor, Graduate School of Law, Hokkaido University
	Development of indicators for sustainable livelihood in regional communities	Takaaki Ohnishi	Associate Professor, Graduate School of Information Science and Technology, The University of Tokyo
	Development of the safe and trusted care system and life infrastructure in local communities under the depopulation	Hikaru Samuta	Professor, Institute of Human and Social Sciences, Kanazawa University
	Research for Developing and Socially Implementing Livelihood Support through a Multigenerational Collaboration Model	Yoshinori Fujiwara	Research Team Director, Tokyo Metropolitan Institute of Gerontology, Tokyo Metropolitan Geriatric Hospital and Institute of Gerontology
Evaluation Analysis on a Regulatory Reform	Benefit Analysis on Regulatory Reform of Property Market by Abolishing the Protection Rule of Short Time Tenancy	Hideo Fukui	Professor, Graduate School of Policy Studies, National Graduate Institute for Policy Studies

(As of April 2018)

(For reference) selected projects in FY2013

Topic-setting research: 2 projects

Openly recruited research: 11 projects

New ■ Extension ■

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	Nobuya Hashimoto	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	Toru Oga	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	Fumio Iida	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	Manabu Sato	Professor, Faculty of Letters, Gakushuin University
	An International Comparative Research of How to Adapt Nation-State Oriented University History Education to the Era of Globalization	Kazuaki Tsutsumi	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	Yasuro Abe	Chair, Professor, Research Center for Cultural Heritage & Texts, Nagoya University
	The Cosmos of Dōgen: From Perspectives of Analytic Asian Philosophy	Yasuo Deguchi	Professor, Graduate School of Letters, Kyoto University

(As of April 2018)

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

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

Budget

FY2018 203.89 million yen (Number of internal projects for pacesetting humanities and social sciences research promotion is based on topic-setting)

Website

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

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

The fellowship program is Japan's core program for cultivating young researchers here in Japan, with 5,543 participating fellows in FY2018.

(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.

Fellowship categories

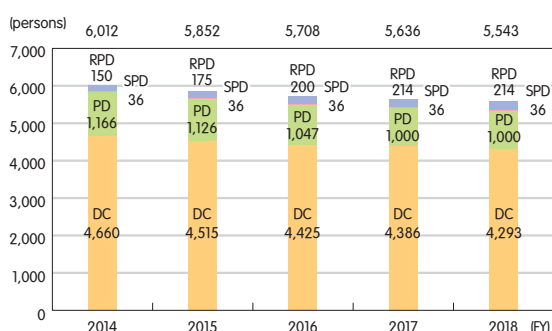
Categories	Eligibility	Tenure	Monthly stipend (FY 2018)	Research grant (Grant-in-Aid for JSPS Fellows)
DC	<ul style="list-style-type: none"> Enrolled in doctoral course DC1: Enrolled in first year of doctoral course DC2: Enrolled in second year or higher of doctoral course 	DC1: 3 years DC2: 2 years	¥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 Transfer to another host institution that is different from the university where they were enrolled in a doctoral course 	3 years	¥446,000	Up to ¥3 million a year

- Outstanding young researchers may be given a Restart Postdoc (RPD) Fellowship after suspending their research activities for the purpose of childbirth and/or infant nursing.

Budget

FY2018: ¥15.9 billion

Total Number of Fellowships



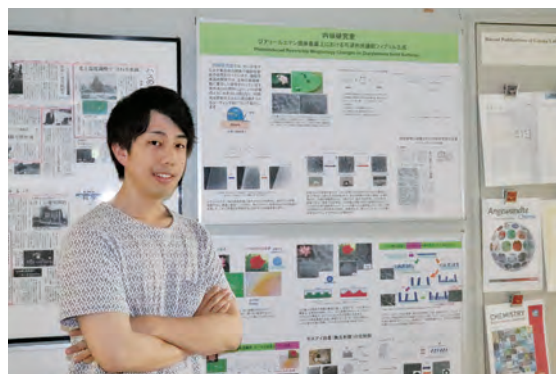
Selection ratios(%)

	FY2014	FY2015	FY2016	FY2017	FY2018
DC1	23.7	21.9	21.8	20.7	20.6
DC2	23.3	21.9	21.8	20.5	20.3
PD・SPD	11.7	11.2	12.5	13.2	15.7
RPD	21.4	26.0	28.2	27.3	26.1

FY2018 RPDs include persons scheduled to be selected.

Website

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



Ryo Nishimura [DC, Ryukoku University]



Yumiko Tsubokawa [PD, Ehime University]

Restart Postdoc (RPD) Fellowship

The Restart Postdoc (RPD) Fellowship was established to support the raising of children and create an environment of equal gender participation within Japan's research community. It provides an avenue 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

The start date can be selected quarterly depending on the time of return from maternity/childcare leave

Monthly stipend (FY2018): ¥362,000

※For details, see application guidelines



Michiko Takai [RPD, Saitama Medical University]

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.



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

Toshihisa Yashiro,
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 full-time researchers at university or equivalent academic research institutes or those wishing to become full time researchers.

Budget

FY2018: ¥2 billion

Website

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

Destination and Number of Researchers Dispatched to Each (FY 2017)

USA	224	Sweden	4	Denmark	1
Germany	41	Singapore	3	Finland	1
U.K.	34	Belgium	3	Vietnam	1
Switzerland	20	Spain	2	Portugal	1
Canada	16	Taiwan	2	Mexico	1
France	16	China	2	Russia	1
Netherlands	9	Israel	1	South Korea	1
Australia	7	India	1	Total	405
Austria	6	Kazakhstan	1		
Italy	5	Kenya	1		

Selection ratios (%) for Overseas Research Fellowships

Year	FY2014	FY2015	FY2016	FY2017	FY2018
Selection Ratios	24.8	17.5	19.3	19.5	22.8

Selected RRA fellows are included in the ratios from FY2016. Including selections scheduled for FY2018.

② 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

FY2018: ¥320 million

Website

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

Destination and Number of Researchers Dispatched to Each (FY 2017)

USA	40	China	3	Iceland	1
Germany	16	Switzerland	2	Israel	1
U.K.	16	Belgium	1	Pakistan	1
France	12	Austria	1	Tanzania	1
Australia	11	Czech	1	Zambia	1
Canada	8	Greece	1	Hong Kong	1
Sweden	4	Cyprus	1	New Zealand	1
Italy	3	Denmark	1	Total	132
Russia	3	Norway	1		

Selection ratios (%) for Overseas Research Fellowships

Year	FY2017	FY2018
Selection Ratios	42.4	53.5

Including selections scheduled for FY2018.

2019 Overseas Challenge Program for Young Researchers Poster



③ 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

FY2018: ¥768 million

Website

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

New selections by field

	FY2015		FY2016		FY2017	
Research Area	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
Programs	84 (28)	80 (24)	64 (12)	48 (12)	36 (12)

Total number of dispatches

Region	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Asia	36	118	55	41	20	270
Oceania	7	9	28	28	18	90
Africa	11	34	21	25	10	101
Europe	209	408	401	259	132	1,409
Russia & NIS	11	11	1	1	0	24
North America	111	196	247	195	86	835
Central/South America	2	6	5	1	2	16
Total	387	782	758	550	268	2,745

Total number of researchers invited

Region	FY2014	FY2015	FY2016	FY2017	Total
Asia	27	49	62	35	173
Oceania	1	8	19	10	38
Africa	0	5	0	3	8
Europe	34	103	148	107	392
Russia & NIS	4	3	5	0	12
North America	22	52	84	58	216
Central/South America	0	0	2	2	4
Total	88	220	320	215	843

(2) Inviting Excellent Researchers from Abroad

Researcher Career Stage

Pre- and post-doctoral researchers

Post-doctoral researchers

6 years after Ph.D.

JSPS Postdoctoral Fellowships for Research in Japan			
		Standard 12 to 24 months approx. 340 fellows	
Summer Program 2 months in summer approx. 100 fellows	(By recommendation)	Strategic Program 2 to 12 months approx. 50 fellows	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 FY2017: 115 (US/55, UK/13, France/13, Germany/13, Canada/13, and Sweden/8)

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

This program focuses upon the major advanced 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 FY2017: 29 (US/17, Switzerland/8, India/4)

Mid-career

Professor

Nobel laureate

JSPS International Fellowships for Research in Japan

Long Term
2 to 10 months
approx. 60 fellows

Short Term
14 to 60 days
approx. 170 fellows

Short Term S
7 to 30 days
Limited number

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 FY2017: 185 (UK/32, France/29, Germany/28, US/18, others/78)

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 2017: 803 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 FY2017: 96 from 30 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 FY2017: 207 from 36 countries

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

This program invites overseas researchers with distinguished records of research achievement to Japan for purposes corresponding to those records, and to provide them opportunities to offer advice and cooperate in research activities throughout the host institution and also to give lectures or conduct other activities at other Japanese research institutions.

- Accepted in FY2017: 4 from 3 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



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.

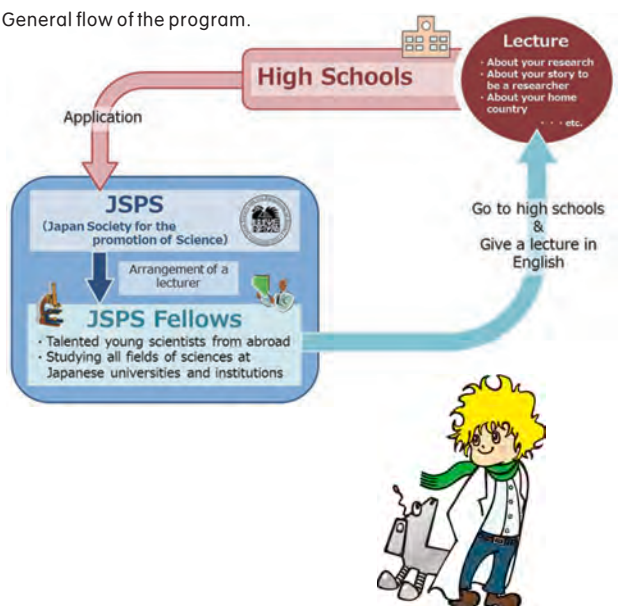
Fellows who participate in this program will have an enjoyable opportunity to not only interact with the Japanese students but also strengthen their ties with Japan by communicating with people in the local community.

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 FY2017, 146 lectures, 75 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. Hannah Ruth Windley from Australian National University (Australia)
(2017 Oct. 30, Iwate Prefectural Kamaishi High School)



Dr. Maria Vanessa Cases Balois from RIKEN (Philippines)
(2017 Nov. 28, Chiba Prefectural Sakura Senior High School)



Dr. Chanchal Sow from Kyoto University (India)
(2018 Jun. 31, Kyoto Prefectural Jonan-Ryoso High School)



Dr. Charlotte Rivas from Imperial College London (UK)
(2018 Jun. 31, Nagano Yashiro High School)

(3) Awards of Recognition, Providing Training Opportunities for Researchers

① Awards of Recognition

(1) JSPS Prize

Purpose

This Prize was established in FY 2004 to identify young researchers conducting superlative work and recognize their efforts at an early stage in their careers. In doing so, it is meant to sustain the awardees' motivation and encourage them in their endeavors, thereby cultivating Japanese researchers capable of making scientific breakthroughs.

Programs

Each year, the Prize is awarded to researchers under age 45 in all fields of research including the humanities, social sciences, and natural sciences. The Prize consists of a certificate of merit, a medal, and a purse of ¥1.1 million. Some of the recipients are also awarded the Japan Academy Medal. The ceremony is held at the Japan Academy in the presence of Their Imperial Highnesses Prince and Princess Akishino.

Website

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



The 14th JSPS Prize Ceremony (2018 Feb. 7, The Japan Academy)

14th (FY2017) JSPS Prize Awardees

Research Area	Names	Affiliation	Research Topics
Integrated Disciplines	ITO Akihiko	Senior Researcher, Center for Global Environmental Research, National Institute for Environmental Studies	Development of Terrestrial Ecosystem Model and Its Application to Global Warming Research
	KIGUCHI Manabu	Professor, School of Science, Tokyo Institute of Technology	Development of Measurement Methods for Single Molecule Junctions and Their Properties
	KIMURA Yuki	Associate Professor, Institute of Low Temperature Science, Hokkaido University	Elucidation of the Early Stages of Crystallization in View of Nano-science, and Its Applications to Astronomy
	HOMMA Naofumi	Professor, Research Institute of Electrical Communication, Tohoku University	Theory of Hardware Algorithms for Computer Arithmetic and Its Application to Design of Cryptographic Hardware
Humanities and Social Sciences	ISHII Miho	Associate Professor, Institute for Research in Humanities, Kyoto University	An Anthropological Study of Magico-Religious Practices in West Africa and South India
	KAMADA Yumiko	Associate Professor, Faculty of Economics, Keio University	Carpets That Bind the World: Indian Carpets and Their Journey toward the Kyoto Gion Festival from a Perspective of Global History
	KITAMURA Yuto	Associate Professor, Graduate School of Education, The University of Tokyo	Theoretical Study on the Public Sphere in International Education Development
	NAKAYA So	Assistant Professor, Academic Assembly Institute of Education, Shinshu University	Research on State Formation in Late Medieval Italy
	NONAKA Tetsushi	Associate Professor, Graduate School of Human Development and Environment, Kobe University	Research on Flexible Action Control in Body-Environment System
Mathematics; Physical Sciences; Chemistry; Engineering Sciences	IRITANI Hiroshi	Associate Professor, Graduate School of Science, Kyoto University	New Development in the Study of Quantum Cohomology and Mirror Symmetry via Gamma Structure
	KONDO Takeshi	Associate Professor, The Institute for Solid State Physics, The University of Tokyo	Study of Pseudogap State of High-Tc Copper Oxide Superconductors
	SANDO Shinsuke	Professor, Graduate School of Engineering, The University of Tokyo	Development of Hyperpolarized NMR Molecular Probes for Sensing and Imaging Biological Systems
	SUGIMOTO Yoshiaki	Associate Professor, Graduate School of Frontier Sciences, The University of Tokyo	Measurement of Single Chemical Bonding Force and Its Control for Nanostructuring
	SUTOU Yuji	Associate Professor, Graduate School of Engineering, Tohoku University	Development of New Smart Materials through Phase Transformation Control
	HIRATA Akimasa	Professor, Graduate School of Engineering, Nagoya Institute of Technology	Integrated Simulation Techniques for Multiphysics and Physiological Response and Their Application
	HIRYU Shizuko	Professor, Faculty of Life and Medical Sciences, Doshisha University	Study on the Biosonar System of Bats
	YONETOKU Daisuke	Professor, Institute of Science & Engineering, Kanazawa University	Study of Radiation Mechanism of Gamma-ray Bursts Using Gamma-ray Polarimeter onboard Spacecraft
Biological Sciences; Agricultural Sciences; Medical, Dental, Pharmaceutical Sciences	KAJIMURA Shingo	Associate Professor, San Francisco UCSF Diabetes Center, University of California	Identification of Genes and Signaling Pathways Needed for Development and Differentiation of Brown Adipose Cells
	KUHARA Atsushi	Professor, Faculty of Science and Engineering, Konan University	Molecular and Cellular Mechanisms Underlying Temperature Response in Nematoda
	KODERA Noriyuki	Associate Professor, Bio-AFM Frontier Research Center, Institute of Science & Engineering, Kanazawa University	Direct High Resolution Video Imaging of Walking Motion of Myosin Molecules
	KOMATSU Masaaki	Professor, Graduate School of Medical and Dental Sciences, Niigata University	Elucidation of the Role of Aberrant Selective Autophagy in Pathogenic Mechanisms of Digestive Diseases
	KOYANAGI Mitsumasa	Associate Professor, Graduate School of Science, Osaka City University	Studies on Diversity and Evolution of Molecular Mechanisms of Photoreception throughout the Animal Kingdom
	SATO Toshiro	Associate Professor, School of Medicine, Keio University	Development of Organoid Culture System for Elucidation of Human Diseases
	SHIMURA Hanako	Assistant Professor, Research Faculty of Agriculture, Hokkaido University	Roles of RNA Silencing in Symptom Development Induced by Plant Virus Infection and Identification of Antivirus Compounds That Inhibit Viral Suppression of RNA Silencing
	BANNAI Hiroko	PRESTO Researcher 'Exclusive Appointment' for Research Area "Single Cell Analysis, Japan Science and Technology Agency	Single Molecule Imaging Approach to Mechanisms Underlying Brain Functions

※ Titles and affiliations current as of 1 December 2017

(2) JSPS *Ikushi* Prize

Purpose

In 2009, JSPS received an endowment from His Majesty Emperor 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 are nominated to JSPS by the heads of Japanese universities and academic institutions from among 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 through a process of document and panel reviews, with the final decisions made by a selection committee established within JSPS.

About sixteen awardees will be selected each year.

(2) The Prize

The awardees receive a certificate, a medal and a scholarship grant of ¥1.1 million. For those awardees who desire, they are also given a JSPS Research Fellowship for Young Scientists, to begin from the following fiscal year.

Website

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



The 8th JSPS *Ikushi* Prize Ceremony (2018 Mar. 6, The Japan Academy)

8th (FY2017) JSPS *Ikushi* Prize Awardees

Names	Affiliation	Research Topics
OKAZAKI Yusuke	Graduate School of Science, Kyoto University	Diversity and Ecology of bacterioplankton inhabiting deep freshwater lakes
ONODA Atsuto	Graduate School of Pharmaceutical Sciences, Tokyo University of Science	Mechanisms and effects of maternal exposure to ultrafine particle on the central nervous system of offspring
KARIYAZONO Shiho	School of Advanced Sciences, The Graduate University for Advanced Studies	The genetic basis and the biological role of fluorescent proteins in <i>Acropora</i> species
KUMAGAI Kota	Graduate School of Engineering, Utsunomiya University	Volumetric display with holographic laser drawing
KUROKI Nahoko	Graduate School of Humanities and Sciences, Ochanomizu University	Theoretical design of functional liquid mixtures by means of physicochemical simulations and machine learning
SAITO Yu	Graduate School of Engineering, The University of Tokyo	Quantum Transport in Highly Crystalline Two-dimensional Superconductors
NAKAMURO Takayuki	Graduate School of Engineering, Kyoto University	Development of Novel Synthetic Transformation Reactions with N ₂ Extrusion
NAMBA Miki	Graduate School of Social Sciences, Hitotsubashi University	Anthropological Study on Urbanization and Infrastructural Development in Vientiane Capital, Lao P.D.R.
HASHIMOTO Kazuma	School of Engineering, The University of Tokyo	Obtaining Mathematical Representations for Natural Language Semantics Using Deep Learning
HATAZAWA Yukino	Graduate School of Life and Environmental Sciences, Kyoto Prefectural University	Elucidation of molecular mechanism of skeletal muscle metabolism, focusing on exercise and atrophy
MAEDA Shunta	Graduate School of Human Sciences, Waseda University	Influence of cognitive information processing on cortisol recovery in social anxiety
MATSUDA Ayaka	Graduate School of Fisheries Sciences, Hokkaido University	Diet study about small toothed whales around Japan
MIURA Tatsuya	Graduate School of Mathematical Sciences, The University of Tokyo	Analysis on effects of bending, adhesion and tension energy to shapes
MIZUMOTO Nobuaki	Graduate School of Agriculture, Kyoto University	Studies on the pattern formation algorithm of searching and construction behaviors
Michelle Sue Jann Lee	Graduate School of Frontier Biosciences, Osaka University	Malarial parasite products cause chronic inflammatory bone loss
MURATE Kosuke	Graduate School of Engineering, Nagoya University	Development of injection-seeded Terahertz-wave Parametric Generator and Applications
MENG Xianwei	Graduate School of Human-Environment Studies, Kyushu University	Early Development of Communication Based on the Understanding of the Environmental Information and the Epistemic States of Others: An Empirical Study on Human Infants
WATANABE Saori	Graduate School of Sociology, Meiji Gakuin University	Historical Analysis of Rare Diseases Policy in Japan: Public expenditure medical care by diseases-category-based model

※ Affiliations current as of 1 May 2017

(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 the present Emperor His Majesty Emperor Akihito, 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 every 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 33rd International Prize for Biology (2017 Dec. 4, 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	Yoshinori Ohsumi (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)

(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. Hideyo Noguchi (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.



The 10th HOPE Meeting
Lecture by Takaaki Kajita (2015 Nobel Laureate in Physics)



The 10th HOPE Meeting, Group discussion
with J. Georg Bednorz (1987 Nobel Laureate in Physics)

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

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.

The 10th HOPE meeting held in March of 2018 was chaired by Dr. Makoto Kobayashi (2008 Nobel Laureate in physics). 108 young researchers from 21 countries attended together with seven renowned lecturers including Nobel laureates in the fields of physics, chemistry, and physiology/ medicine.

Website

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



The 10th HOPE Meeting, poster session



The 10th HOPE Meeting (2018 Mar. 12 – 15, Yokohama)

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 Workshops & Seminars

Together with overseas academic research institutes, we support the expenses related to the implementation of workshops and academic seminars in all fields including humanities and social sciences.

Website

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



Brazil-Japan Joint Research Workshop in Adhesive Dentistry (Brazil) Symposium Venue (2017 November) (Courtesy: Tokyo Medical and Dental University)

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 2018 was the third Dialogue.

Website

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

Videos from Nobel Prize Dialogue

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



Over 1,100 attendees (Nobel Prize Dialogue Tokyo 2018)



Participants discussed with Dr. Ada Yonath (2009 Nobel Laureate in Chemistry) (Nobel Prize Dialogue Tokyo 2018)



Nobel Laureates Discussion (Nobel Prize Dialogue Tokyo 2018)

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 (Tentative)	PACIFICO Yokohama Conference Center	The Age to Come	19 including 5 Nobel Laureates

⑤Frontiers 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)



Japanese-American-German Frontiers of Science (JAGFoS) Symposium (2017 September, Bad Neuenahr)



Poster session, Japanese-American-German Frontiers of Science (JAGFoS) Symposium (2017 September, Bad Neuenahr)



Japanese-Canadian Frontiers of Science (JCFoS) Symposium (2017 November, Okinawa)

(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 per researcher (Up to ¥4 million/year for humanities and social science fields)

② Costs of building a research environment

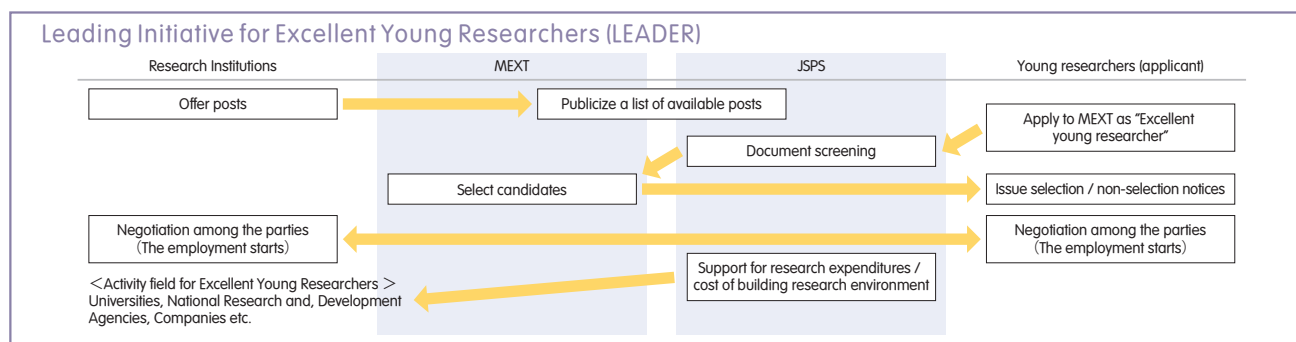
Year 1 to 5 after adoption: Up to ¥2 million/year/researcher

Budget

FY2018: ¥1.668 billion

Website

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



Harnessing University Strengths to Enhance Education and Research Capability

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) Foster internationally conversant researchers by globalizing Japanese universities and research institutions and Japan's overall research environment
 - The world's top-level researchers are invited from both Japan and abroad to work in the centers.
 - A robust management system, including a merit-based pay scheme, is introduced.
 - A research environment in tune with international standards is created through such means as making English the working language at the centers and introducing flexible support systems.
- (2) Cultivate novel seeds of innovation by forging scientific advances

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 new centers in FY 2018.
- Project duration: Ten years, with a possible 5-year extension for centers selected in FY 2007, 2010 and 2012 ; Interim project evaluations are performed at the fifth year.
- Amount of grants:
 - ¥1.3-1.4 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

FY2018: ¥7 billion

Website

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

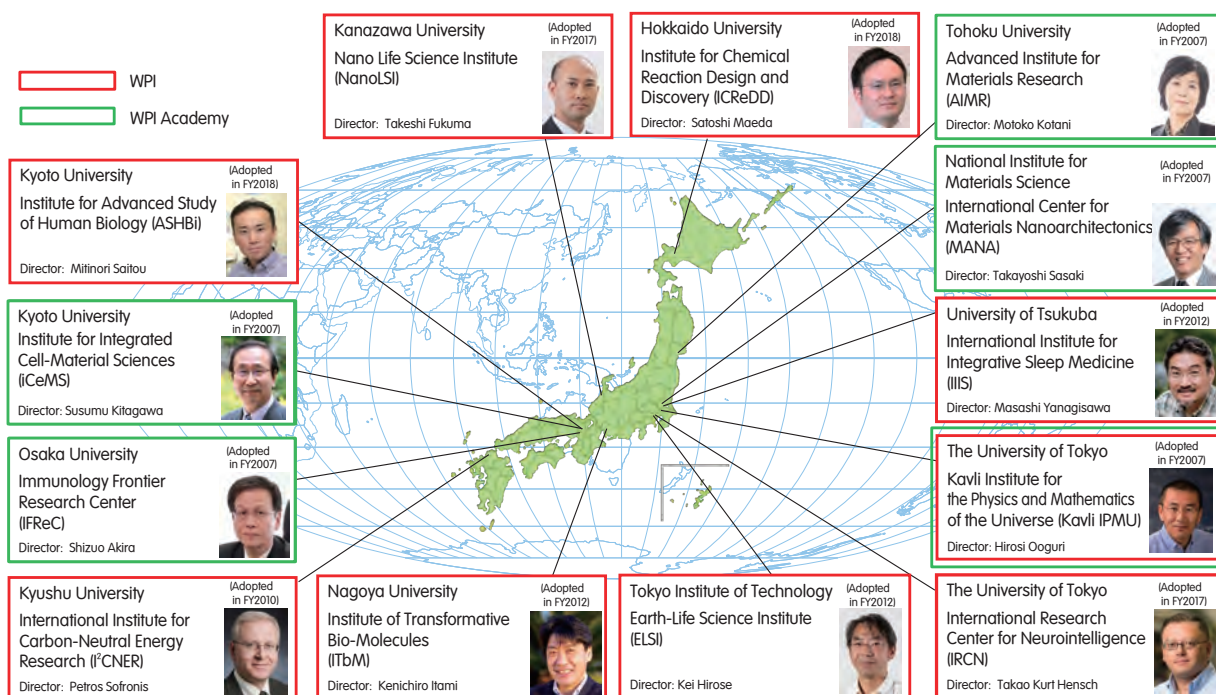
<https://wpi-forum.jsps.go.jp/>

(website shares know-how on how to invite researchers from abroad and provides information for WPI related events)



Website "WPI Forum" top page

WPI centers





Site Visit



WPI Public Relations Event at 2018 AAAS Annual Meeting in Austin, TX

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 FY2012 were conducted in FY2018.

Budget

FY2018: ¥7.1 billion

Website

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



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



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

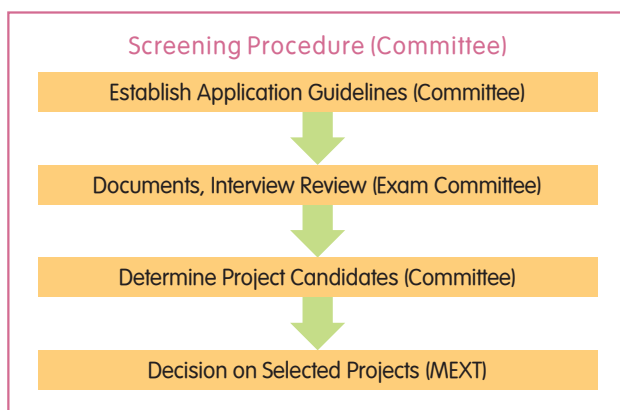
Programs

● 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

FY2018	Number of application		Number of adoption	
	University	Number	University	Number
FY2018	38	54	13	15

- 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

FY2018: ¥5.6 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**

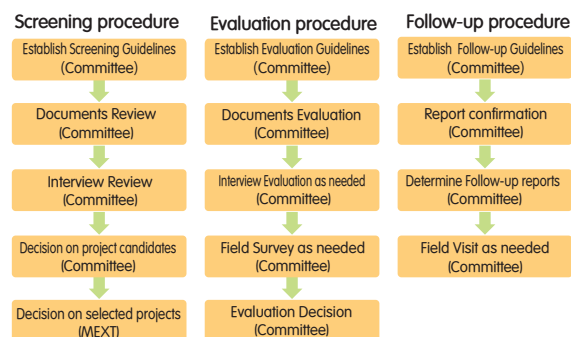
FY2016: Follow-up for Themes I - IV; FY2017: Interim evaluation of all themes; FY2018 and FY2019: Follow-up; FY2020: Post-project evaluation after completion of support.

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**

FY2018: ¥1.2 billion

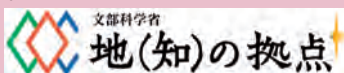
Website

<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

< >Number of applications			
FY	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

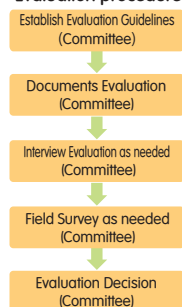
Program for Promoting Regional Revitalization with Universities as Centers of Community (COC+)

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

FY2018: ¥2.1 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

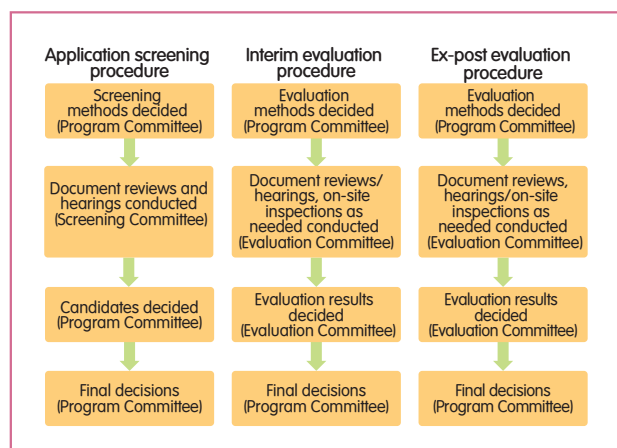
1) Inter-University Exchange Project

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>	
	II: Projects with universities in Europe, Australia, and other countries	5 <31>	
2012 (Support ended)	Category I: Projects with universities in ASEAN member countries	9 <54>	
	Category II: SEND (Student Exchange-Nippon Discovery) program	5 <17>	
2013 (Support ended)	AIMS (ASEAN International Mobility for Students) programme	7 <25>	
2014	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-(1): 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		1 <1>

Budget

FY2018: ¥1.5 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.

Interim evaluation procedure

Evaluation methods decided (Program Committee)

Document reviews/hearings, on-site inspections as needed conducted (Evaluation Committee)

Evaluation results decided (Evaluation Committee)

Final decisions (Program Committee)

Budget

FY 2018: ¥4.0 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

We established new international headquarter to promote JSPS projects free from domestic or international boundaries. Through diverse operations, the international 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.



The 7th Annual Meeting of the Global Research Council (GRC) (2018 May, Moscow)

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, JSPS has been a member of its Governing Board.



The 7th Annual Meeting of the Global Research Council (GRC) (2018 May, Moscow)

The 8th annual GRC meeting is scheduled to be held in Sao Paulo, Brazil in May 2019, cohosted by Sao Paulo Research Foundation (FAPESP), German

Research Foundation (DFG) and the National Science and Technical Research Council (CONICET).

Website

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

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

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

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

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 (2018 September, Nagoya)

3) Formation and Collaboration with Overseas Researcher Communities

① Forming a Researcher Community

This program supports follow-up activities for former JSPS fellows in the researcher community, including the issuing of a newsletter, in order to form and maintain a network between JSPS overseas fellows. At present, eighteen 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 sustaining developing and strengthening collaborative research relations with fellow researchers in Japan. During their stay in Japan, BRIDGE fellows conduct joint research and seminars, present lectures and activities to raise awareness in young researchers, and participate in conferences held 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



 GERMANY *1
Established in 1995



 FRANCE
Established in 2003



 UK *2
Established in 2004



 US
Established in 2004



 SWEDEN
Established in 2005



 INDIA
Established in 2006



 EGYPT
Established in 2008



 Eastern Africa *3
Established in 2008



 KOREA
Established in 2008



 BANGLADESH
Established in 2009



 FINLAND
Established in 2009



 THAILAND
Established in 2010




 CHINA
Established in 2010



 PHILIPPINES
Established in 2013



 Nepal
Established 2015



 Denmark
Established 2015



*1 The German alumni community includes other Germanspeaking regions of Austria and Switzerland.

*2 The UK alumni community includes Ireland.

*3 The Eastern African alumni community includes Brundi, Ethiopia, Rwanda, Tanzania and Uganda.

 Indonesia
Established in 2016



 Australia
Established in 2017



4) Introducing the Activities of JSPS Overseas Offices

JSPS has established ten overseas research centers in nine countries in addition to the post of Science Advisor in São Paulo.

- JSPS Washington Office
- JSPS San Francisco Office
- JSPS Bonn Office
- JSPS London Office
- JSPS Stockholm Office
- JSPS Strasbourg Office
- JSPS Bangkok Office
- JSPS Beijing Representative Office
- JSPS Cairo Research Station
- JSPS Nairobi Research Station

● 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 (support for reunions, etc.)
- (5) Sharing academic information in Japan and gather information, such as scientific trends overseas.
- (6) Supporting researchers conducting fieldwork

Website

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

● Overseas Internships for University Administrative Staff

This program is targeted at staff of public and private universities as a measure to raise international academic exchange specialists by having them work at Overseas Offices as 'International Program Associate'. During their internships, they are required to make a study and compile a report on a selected theme regarding international academic exchange.

Implementing Offices:

Washington DC, San Francisco, Bonn, London, Stockholm, Strasbourg, Bangkok, and Beijing (8 centers)

● Joint Use of JSPS Overseas Offices

We have implemented a plan in which Japanese universities can use JSPS office space to allow university faculty and staff to stay onsite for prolonged periods in order to expand internationally.

Implementing Offices:

Washington DC, San Francisco, Bonn, London, Stockholm, Beijing, Cairo and Nairobi (8 centers)

Examples of supported activities

- Holding symposia in the host country
- Conducting international academic activities such as researcher exchanges and joint research with local universities and institutions
- Follow up activities to maintain and further develop exchanges with local universities
- PR and information gathering activities



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>



The 10th Anniversary of JSPS Beijing Office (2017 Nov. 3, Beijing)

Building a Comprehensive Academic Information Analysis Base

1 Building Centralized Information Consolidation and Management System

JSPS implements diverse projects, such as KAKENHI, researcher fostering, international academic exchange. In order to support the activities of researchers from a comprehensive and cross-sectoral perspective that transcends project boundaries, JSPS build an infrastructure to

comprehensively analyze and utilize information on JSPS projects. JSPS continues to work on centralized management which ensures information security and the protection of personal information after JSPS consolidated and shared data relating to the projects.

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) Comprehensive and Longitudinal Assessment and Analysis on JSPS's programs

The CSIA conducts survey and analysis on JSPS programs of funding scientific research, fostering talented researchers, promoting science-related international exchange, and supporting the reform of universities. Senior Researchers oversee CSIA activities on each theme of these programs, and Researchers conduct survey and analysis on individual subject themes and trends.

(2) Information Sharing and Collaboration with External Organizations through Liaison Conference

The Liaison Conference which consists of representatives of organizations relevant to academic information is established. The CSIA collaborates with these organizations and shares information through this conference.

(3) Offering proposals for the enhancement of JSPS programs based on the results of survey and analysis

The CSIA forwards the results of survey and analysis

to RCSS and other JSPS divisions in charge, and offers proposals for the enhancement of the programs.

(4) Disseminating the results of survey and analysis widely

In cooperation with the Public Relations Office, the CSIA disseminates the results of the survey and analysis widely through 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	Medical, Dental and Pharmaceutical Science
Humanities	Social Sciences
Mathematical and Physical Sciences	Chemistry
Engineering Sciences and Informatics	Information science
Biological Sciences	Agricultural and Environmental Sciences

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.



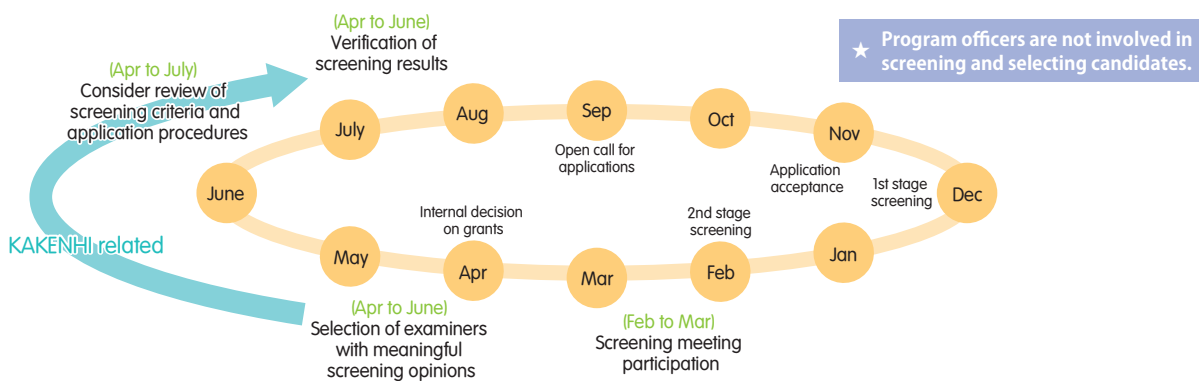
2018 Senior Program Officer

Website

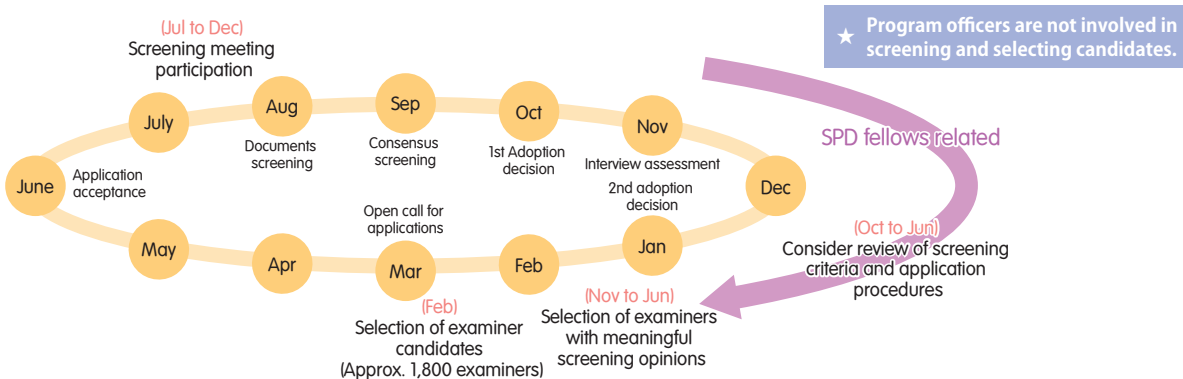
<https://www.jsps.go.jp/j-center/index.html>

Role of the Research Center for Science Systems for SPD fellows Project

* SPD = Selected superlative postdoctoral



Role of the Research Center for Science Systems for Research Fellows Project



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).

2 Enhancement of Information Dissemination

(1) Enhancement of Information Dissemination

① Website

JSPS employs accessibility guidelines to give users of its website easy access. 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 academic achievement among students who will forge the future of Japan, by stimulating scientific curiosity "HIRAMEKI" in order to foster spiritual richness and intellectual creativity "TOKIMEKI". Researchers talk with young people about the research they are doing through KAKENHI in order to convey the fun and fascination that is contained in science, and show society and the public the cultural value of scholarship. To date, sessions have been attended by around 62,000 students at 1,485 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 FY2017, 341 sessions were held at 170 institutions, with a total attendance of 6,865 students who will forge the future of Japan.

● Visit and Experience Program

From mid-July to the end of January the following year, mostly in summer vacation, students visit research and university laboratories 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>



Measuring the ultrasound of bats –the physics of sound in living creatures–
(2017 July, Doshisha University)

Number of projects to date

	Universities						Inter-university research institutes		Others		Total	
	National		Public		Private							
	Institutions	Projects	Institutions	Projects	Institutions	Projects	Institutions	Projects	Institutions	Projects	Institutions	Projects
FY2008	41	78	9	14	42	70	-	-	-	-	92	162
FY2009	45	90	14	18	63	99	1	1	-	-	123	208
FY2010	42	94	14	15	61	93	3	3	-	-	120	205
FY2011	44	102	10	12	54	86	1	2	1	1	110	203
FY2012	44	92	6	7	60	95	4	4	6	7	120	205
FY2013	45	107	9	10	70	113	2	2	10	11	136	243
FY2014	50	129	12	16	70	106	2	2	11	14	145	267
FY2015	53	144	12	17	70	116	1	1	17	19	153	297
FY2016	50	156	15	20	73	127	1	1	22	26	161	330
FY2017	51	172	12	15	83	123	2	3	22	28	170	341

* "Others" includes junior colleges and National Technical Colleges.

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

Program for 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 2018, there were 70 committees in active operation (4500 total members: 2,800 from academia, 1,700 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
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
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

University-Industry Cooperative Research Committees

Committee Name
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

Committees for Research Promotion in Specialized Areas

Committee Name
Multidisciplinary research on biological effects of radiation (Oct. 2015 to Sep. 2018)
New Value Creation of Autonomous and Cooperative-Type Advanced Measurement using "AI" (Apr. 2018 to Mar. 2021)
Diverse STEM Workforce Engagement Research (Apr. 2018 to Mar. 2021)

Frontier Research and Development Committees

Committee Name
Strategic plan for industrial innovation platform by Materials Informatics
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. Noboru Fujita 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

JSPS holds symposia and workshops, in cooperation with the Japan Science and Technology Agency (JST), and Japan Agency for Medical Research and Development (AMED), to support the improvement of Research ethics educational efforts.



RIO Network Kick-off Symposium "Think, Notice" Research ethics education (2017 November, 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

FY2018: ¥39 million

Website

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

List of Programs

	Program		Term	Support	Charge section	Page
I Creating World-class Knowledge in Diverse Fields	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	11
	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 Program		A maximum of 3 or 5 years (depending on the program)	For each project: ¥10 million or ¥15 million per year (depending on the program)	International Policy Planning Division	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	14
		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	17
		Responding to Real Society		¥5 or 10 million a year per theme		
		Global Initiatives		¥10 or 20 million a year per theme		
	Constructing Data Infrastructure for the Humanities and Social Sciences		Up to 5 years	¥15-25 million a year per hub	University-Industry Cooperation and Research Program Division	20
II Fostering the Next Generation of Researchers to Pioneer Knowledge	Research Fellowships for Young Scientists		2-3 years	Fellowship: ¥200,000-446,000 per month Research grant: ¥1.5 to 3 million per year	Research Fellowship Division	21
	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	23
	Overseas Challenge Program for Young Researcher		3 month-1 year	Up to ¥15 million a year per project	Bilateral Cooperation Division	24
	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	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 G. Short-term S			
	RONPAKU (Dissertation PhD) Program		3 years	Roundtrip international airfare, etc.	Overseas Fellowship Division	28

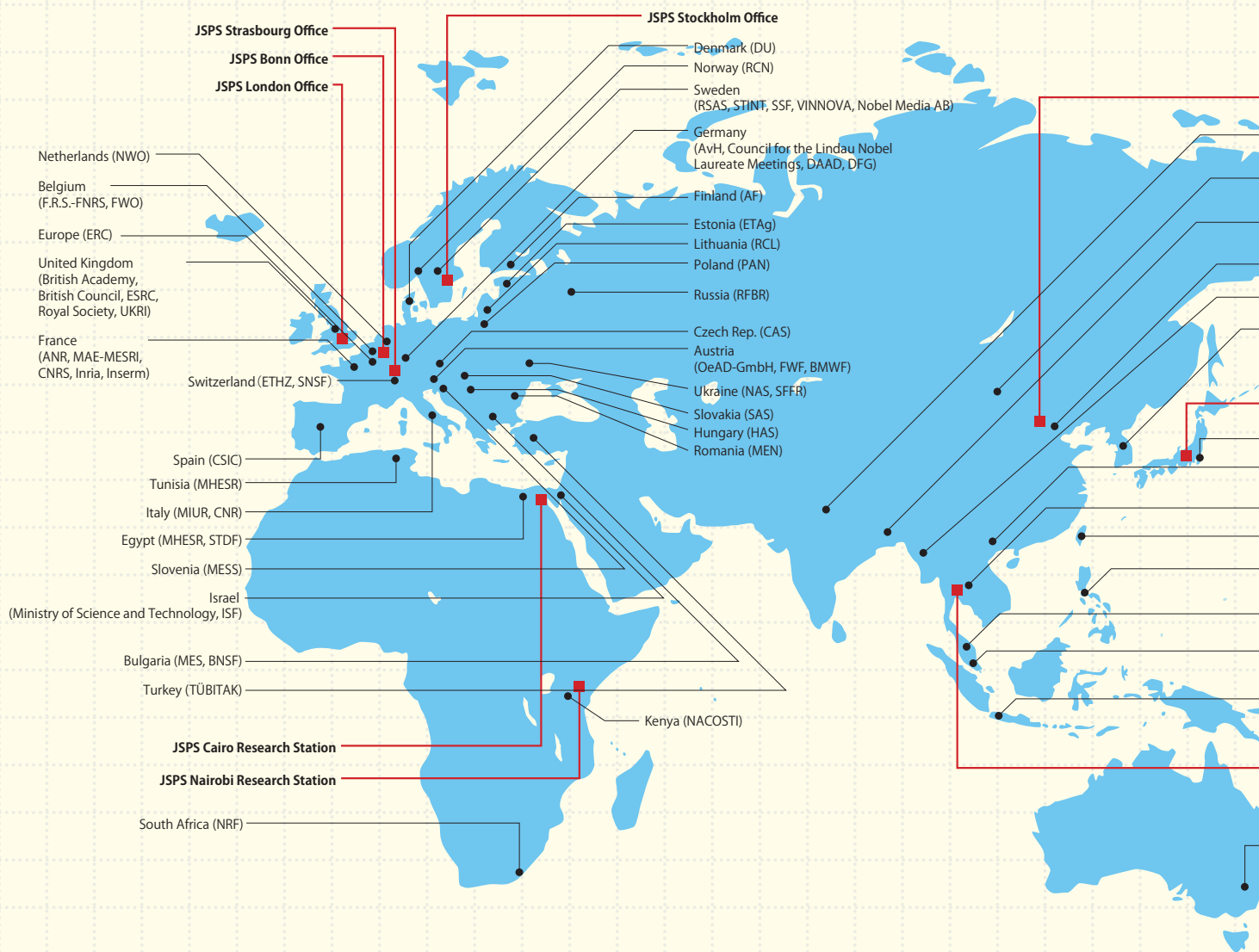
	Program		Term	Support	Charge section	Page
II Fostering the Next Generation of Researchers to Pioneer Knowledge	Science Dialogue Program		Ongoing	Cost of teaching materials, domestic travel	Overseas Fellowship Division	29
	HOPE Meetings ~ 5 days with Nobel Laureates		About 5 days	Domestic travel, food/ 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/ lodging	International Research Cooperation Division I	36
	International Workshops & 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	Research expenditures: Year 1 and 2 after adoption: Up to ¥6 million per researcher (Up to ¥4 million/year for humanities and social science fields) Funding for building Research environment: Up to ¥2 million per year (for year 1-5) multiplied by the number of LEADERS per year	Research Fellowship Division	39
III Harnessing University Strengths to Enhance Education and Research Capability	World Premier International Research Center Initiative (WPI)		10 years	¥1.3-1.4 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	40
	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 with 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
	HIRAMEKI☆TOKIMEKI SCIENCE –Welcome to a University Research Lab– Science That Inspires and Inspirits		During period from mid-July to late January	Up to ¥500,000 per program	University- industry Cooperation and Research Program Division	61
VI Cross-sectional Issues	Program for Publishing of Noteworthy Contributions to Science and Technology				University- Industry Cooperation and Research Program Division	62
	Fujita Memorial Fund for Medical Research		1 year	¥1 million per project	University- Industry Cooperation and Research Program Division	64
	Proxy Collection of Funds to Support Holding International Scientific Meeting	Contributions collected under JSPS's status as "special public-interest promotion corporation"	Within 2 years		Institutional Research and Information Division Public Relations Office	64
		Contributions collected as specified tax-exempt donations	Within 1 year			
	Promoting Research Integrity				Research Integrity and Auditing Office	64

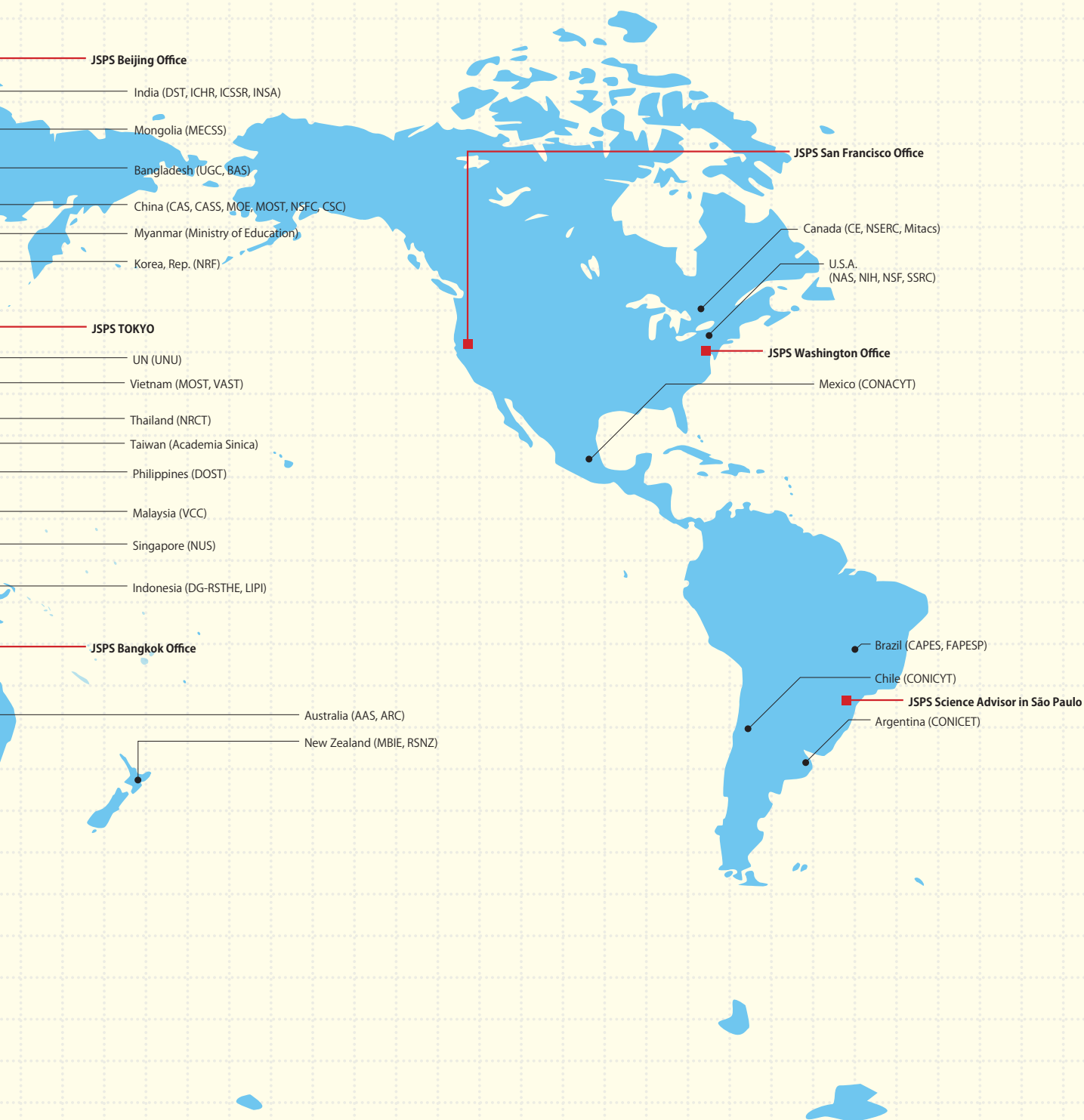
List of JSPS Overseas Counterpart Institutions (96 institutions)

Region / Country		Counterpart Institutions	Fellowships	Bilateral Programs		Multilateral and Other Program
			Postdoctoral Fellowship	Researcher Exchanges	Research Projects/ Seminars	
Asia	Bangladesh	University Grants Commission (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 Rep.	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	✓			
	U.S.A.	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)			✓	
		São Paulo Research Foundation (FAPESP)				✓
	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



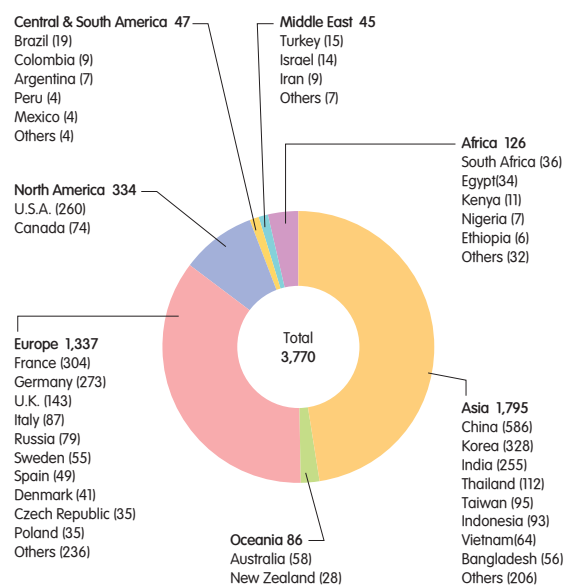


Researchers Exchanged from 2015-2017

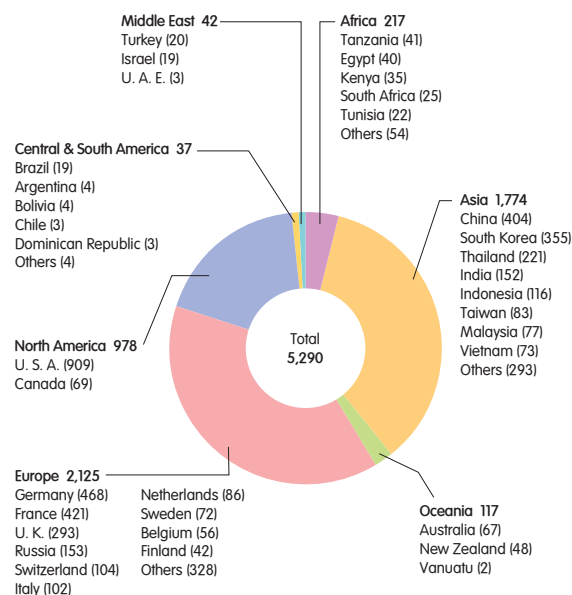
Region / Country	FY	Foreign Researchers Invited to Japan															Total			Japanese Researchers Sent Abroad						Total		
		Invitational Fellowships									Postdoctoral Fellowships			Bilateral/ Multilateral and Other Programs			Total			Overseas Research Fellowships			Bilateral/ Multilateral and Other Programs			Total		
		2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
Total		267	259	211	98	97	96	1,197	1,169	1,185	2,352	2,851	2,278	3,914	4,376	3,770	433	411	405	5,031	5,022	4,885	5,464	5,433	5,290			
Asia	India	4	11	9	2	7	7	100	99	101	171	195	138	277	312	255	1		1	120	126	151	121	126	152			
	Indonesia		1					8	5	6	96	98	87	104	104	93				127	133	116	127	133	116			
	Cambodia									1	9	5	1	9	5	2				27	33	29	27	33	29			
	Singapore		1		1			2	2	2	40	46	48	43	49	50	1	1	3	96	63	68	97	64	71			
	Sri Lanka	3	1	1				4	2	2			15	5	7	18				10	4	12	10	4	12			
	Thailand		1	2	2		2	12	12	8	141	112	100	155	125	112	1			171	160	221	172	160	221			
	Korea, Rep	5	7	2	10	7	6	42	54	51	271	280	269	328	348	328		1	1	369	500	354	369	501	355			
	China	23	37	18	8	14	7	172	164	192	299	634	369	502	849	586	2	3	2	374	453	402	376	456	404			
	Nepal							9	8	11	2	4	4	11	12	15						4				4		
	Pakistan		1		2			7	5	5	2	2	1	11	8	6				2		1	2			1		
	Bangladesh	6	4	1	6	8	2	41	38	35	8	17	18	61	67	56				8	13	16	8	13	16			
	East Timor											1										1				1		
	Philippines							11	7	4	38	40	27	49	47	31				38	31	60	38	31	60			
	Bhutan				1						2	5	3	2	6	3				5	4	1	5	4	1			
	Vietnam			1		1	1	19	20	17	57	56	45	76	77	64		1	1	95	131	72	95	132	73			
	Malaysia	1	4					1	6	6	7	106	13	38	113	23	46	1		85	84	77	86	84	77			
	Myanmar						3	3	3	2	8	7	9	11	10	14				28	18	36	28	18	36			
	Mongolia				2	1	1	2	5	7	15	19	8	19	25				24	32	51	24	32	51				
	Laos										5	5	6	5	5	6				5	12	11	5	12	11			
	Taiwan	3	2	3	2	1	1	26	26	22	43	63	69	74	92	95	2	2	2	89	71	81	91	73	83			
Oceania	Australia	16	17	7	4	4	3	27	29	27	22	39	21	69	89	58	11	10	7	82	58	60	93	68	67			
	New Zealand	8	2	1	1	2	2	6	6	5	25	38	20	40	48	28				41	60	48	41	60	48			
	Vanuatu																				1	2		1	2			
Europe	Iceland							1							1							1				1		
	Ireland		1	1		1		2	2	1		1		2	5	2				2	1	2	2	1	2			
	Armenia												1							1					1			
	Italy	8	11	16	3	4	3	40	50	45	49	50	23	100	115	87	4	4	5	132	125	97	136	129	102			
	Ukraine	1						2	5	6		9	2	3	14	8				22	28	13	22	28	13			
	Uzbekistan				1			1	2	2			2	2	2	4				6		9	6		9			
	U.K.	18	15	19	3	4	3	70	68	77	19	51	44	110	138	143	32	29	34	219	269	259	251	298	293			
	Estonia							4	3	3			1	4	4	3				9					9			
	Austria	1	4	3				4	2	2	17	8	7	22	14	12	5	8	6	35	38	35	40	46	41			
	Netherlands	3	2	3			2	5	7	7	17	29	18	25	38	30	11	10	9	56	40	77	67	50	86			
	Kazakhstan							1	1		1	1		2	2				1	2	1			2	2			
	Cyprus							1	3				2		1	5					2	1		2	1			
	Greece						1	8	7	5				8	7	6				4	3	4	4	3	4			
	Kyrgyz												2			2						3			3			
	Croatia		1					1	1	2				1	2	2				2	1	4	2	1	4			
	Georgia											4	4		4	4				2	2	1	2	2	1			
	Switzerland	2	4		1			15	9	9	20	24	25	38	37	34	19	21	20	135	115	84	154	136	104			
	Sweden	2	5	5				30	20	20	22	37	30	54	62	55	2	4	4	83	77	68	85	81	72			
	Spain	6	3	10	1		1	24	28	30	4	8	8	35	39	49	1	1	2	72	34	21	73	35	23			
	Slovakia				1			4	2	2				5	2	2				1	1		1	1				
	Slovenia					1		4	6	5	20	14	19	24	21	24				21	19	32	21	19	32			
	Serbia	1			1		1	1		1			1	3		3	1						1					
	Czech		1				1	7	5	6	11	15	28	18	21	35				22	27	39	22	27	39			
	Denmark	1	1	2				5	3	4	1	10	35	7	14	41		1	1	13	18	32	13	19	33			
	Germany	32	25	19	4	3	4	86	82	78	180	197	172	302	307	273	34	36	41	388	416	427	422	452	468			
	Norway	4	4					1	1		1	5		6	10			1		16	15	10	17	15	10			
	Hungary	1	1	1	1		1	16	15	10	24	30	20	42	46	32				48	42	35	48	42	35			
	Finland	5	1	1			2	1	7	6	4	9	35	3	21	44	9	1	1	70	60	41	71	61	42			
	France	25	12	13	8	7	12	102	104	98	241	221	181	376	344	304	25	20	16	405	343	405	430	363	421			
	Bulgaria	1	2		2			4	5	6				7	7	6				3	1	4	3	1	4			
	Belgium	2	1	4				4	5	6	13	18	15	19	24	25	5	7	3	55	38	53	60	45	56			
	Poland	3	3	1	1	1	1	11	12	17	22	15	16	37	31	35				41	40	38	41	40	38			
	Portugal	2	3	1	1			3	1	4	2	1	1	8	5	6			1	5	3	11	5	3	12			
	Macedonia		1												1													
	Malta									1						1												
	Moldova							1	1						1	1												
	Latvia				1					1					1		1				4	4		4	4			
	Lithuania		1	1				1	1	2		8	9	1	10	12				3	10	21	3	10	21			
	Romania							3	2	1				3	2	1				1								
	Russia	5	9	6	7	5	3	7	6	4	63	63	66	82	83	79		2	1	150	128	152	151	130	153			
North America	Canada	13	14	10	2	4	5	22	19	22	8	13	37	45	50	74	23	19	16	81	87	53	104	106	69			
	USA	53	31	38	15	11	13	132	132	127	67	106	82	267	280	260	247	226	224	862	789	685	1,109	1,015	909			
Central / South America	Argentina	4	1	2		1		2	3	3		1	2	6	6	7				7	3	4	7	3	4			
	El Salvador										1																	
	Cuba					1		1	1	1				1	2	1												
	Colombia			1				3	4	6		3	2	3	7	9					1	2		1	2			
	Chile							1	1				2	1	1	3	1			9	6	3	9	6	3			
	Dominican Rep.																											

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					
		Short-term			Long-term																						
Region / Country	FY	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017					
Middle East	Afghanistan									1			3	3		3	4										
	UAE												2	3		2	3				3	11	1	3	11	1	
	Israel												1			1											
	Iran	3	3	3	1			1	1	1	5	6	5	10	10	9		2	2	2	2	1	2	4	3		
	Qatar	1			1	1	1		9	9	8				11	10	9				2		1	2			
	Saudi Arabia																				1		1				
	Syria																				1			1			
	Turkey	1													1						7		2	7		2	
	Jordan						1		1	1	1					1	2	1									
	Lebanon				3		1		4	5	2	9	7	18	13	13	23				29	27	27	29	27	27	
Palestine				1	1	1								1	1	1											
Africa	Algeria								1	1		2	3		3	4											
	Uganda											3	8	3	3	8	3			11	7	2	11	7	2		
	Egypt			3	1	2	2	7	19	14	13	15	18	13	36	37	34			10	35	40	10	35	40		
	Ethiopia	1							3	2	1	2	1	5	6	3	6				8	5		8	5		
	Ghana												4	1		4	1			3	2	5	3	2	5		
	Cameroon					1			2	3	1	1	2	1	3	6	2			5	2	9	5	2	9		
	Gabon												1			1											
	Guinea												1			1											
	Kenya												16	10	11	16	10	11		1	1	47	26	34	47	27	35
	Congo (Dem.)												1	3	5	1	3	5			7	2	4	7	2	4	
	Zambia												3	3	2	3	3	2			7	3	7	7	3	7	
	Sierra Leone												3	2		3	2										
	Zimbabwe								1	1	1					1	1	1									
	Swaziland																					2	2		2	2	
	Sudan												1	2		1	2			6	8	5	6	8	5		
	Senegal																			2			2				
	Tanzania									1	1		2	2	2	2	3	3			13	19	41	13	19	41	
	Tunisia	1							1	4	3	61	36		63	40	3				22				22		
	Nigeria					1	1		5	2	2	3	1	4	8	4	7			1		9	1		9		
	Namibia																				1	1		1			
	Burkina Faso												8	6	1	8	6	1			6	5		6	5		
	Benin										1						1										
	Botswana																				3			3			
	Madagascar												1		2	1	2				2	2	1	2	2		
	Malawi								1	1	1					1	1	1									
	Mali								1	1	1					1	1	1									
	South Africa			1			1						35	31	36	36	32	36			52	45	25	52	45	25	
	Mozambique										1						1										
	Morocco								2	1	1	1				3	1	1									
	Liberia																						1				
	Rwanda												1				1										

Foreign Researchers → Japan (FY2017)



Japanese Researchers → Abroad (FY2017)





COVER PHOTOS:

- ① Joint Research Project with Denmark (OP) (Prof. Eiji Nishibori, University of Tsukuba)
- ② Nobel Prize Dialogue Tokyo 2018
Participants discussed with Dr. Ada Yonath (2009 Nobel Laureate in Chemistry)
- ③ Dr. Charlotte Rivas from Imperial College London (UK)
(2018 Jun. 31, Nagano Yashiro High School)
- ④ Ryo Nishimura [DC Research Fellow (Ryukoku University)]
- ⑤ The 10th HOPE Meeting Poster Session
- ⑥ HIRAMEKI☆TOKIMEKI SCIENCE
Measuring the ultrasound of bats –the physics of sound in living creatures–
(2017 July, Doshisha University)
- ⑦ Joint Research Project with China (NSFC) (Prof. Yoshimichi Ohki, Waseda University)

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 Sanzo Wada of Tokyo Fine Arts School to depict the rooster that symbolizes the breaking dawn in a verse composed by Emperor Showa.

JSPS 2018-2019

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