



JSPS 2017-2018



JSPS

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Message from JSPS President



The kind of superlative knowledge that contributes to developing a robust human society is born out of a continuum of original, cutting-edge research activities carried out by researchers ceaselessly striving to advance science across a spectrum of the humanities, social sciences, and natural sciences. Such scientific thrust is the engine that drives the international competitiveness of a nation's industry and that elevates its persona within the global community. For Japan, it also plays an essential role in building a knowledge-based society. Scientific research lies at the wellspring of superlative knowledge creation. The fostering of talented people who can shoulder the advancement of such cutting-edge research is more important now than ever before.

The Japan Society for the Promotion of Science was established with an imperial endowment in 1932. Over the more than 80 years since then, JSPS has worked to advance science in Japan. In FY 2017, which is the last year of JSPS's third midterm plan, JSPS continues to work toward achieving the objectives of its four program pillars: (1) Creating Diverse World Level Knowledge; (2) Building Robust International Cooperative Networks; (3) Fostering the Next Generation while Enhancing the Education and Research Functions of Universities; and (4) Building Evidence-Based Science-Promotion Systems and Strengthening Linkage with Society. Based on them, JSPS is carrying out a vast array of programs instrumental to expanding the frontiers of scientific investigation.

There has recently been a dramatic intensification of international competition in the scientific arena. Concurrently, Japan is seeing a rapidly devolving trend toward application-oriented research, pursued through short-term projects that can produce quick results. Accompanying this phenomenon is a weakening of researcher's will to challenge original and creative topics. To break through this dilemma and quicken the pace toward Japan's research playing a world-leading role while fostering many young researchers who will play consequential roles on the world stage, a concerted effort is being undertaken to reform the screening procedure of the Grants-in-Aid for Scientific Research (KAKENHI) program, strengthen support for international research activities, and bolster support for young researchers through JSPS's doctoral and postdoctoral research fellowships. Along with these enhancements, our grant system is being revamped and strengthened in ways that promote challenging research and propel projects with international research components. This augmented support is provided to expand the international sphere in which Japanese researchers leap forward in advancing challenging research based on their own free ideas.

JSPS's fourth midterm plan and attendant objectives begin in FY 2018. It responds to demands for scientific research to exert a powerful level of performance in four critical ways: being highly "competitive, comprehensive, interdisciplinary, and international." To achieve this, resolute effort needs to be advanced from a researchers' perspective to improve and reform our programs and systems. Working to accomplish this task, we will undertake to carry out our programs and operations in an ever-more efficient and effective manner toward meeting JSPS's current and new mid-term objectives. Concurrently, we will apply the full strength of JSPS's organization to meeting the needs of researchers and students aspiring to careers in science, while working to satisfy the public's multifaceted expectations for benefits derived from scientific advancement. Armed with the power that "knowledge" gives us in addressing the challenges of coming periods, we will do our utmost to enhance Japan's contribution to global society.

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

Yuichiro Anzai, Ph. D.

Organization

Organization

As of Aug. 2017



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's budget for the 2017 fiscal year totals ¥267.7 billion. This amount includes ¥26.7 billion from the National Treasury in operating funds, 141.7 billion in subsidies for Grants-in-Aid for Scientific Research, ¥1.5 billion for the program "Leading Initiative for Excellent Young Researchers," and ¥1.1 billion for the Strategic International Research Promotion Program. Also included is ¥95.6 for funds established in JSPS with government funding.

The chart below gives a breakdown of the main items of the budget, which is 99.8% subsidized by the Japanese government.

Budget transition FY 2012-2017



FY 2017 Budget by program

Direct funding	
Government subsidies for JSPS as an Independent Administrative Institution	26.7
Research fellowships for young scientists	18.7
International scientific cooperation programs	6.2
Research application programs	0.4
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	1.5
Strategic International Research Promotion Program	1.1
From Commissioned Program, etc	1.0
Multi-year Fund for Grants-in-Aid	95.6
Total	267.7

A "Multi-year Fund for Grants-in-Aid" was established in FY 2011. Its FY 2017 budget is ¥95.6 billion.

Transition in number of JSPS executives and employees

	2013	2014	2015	2016	2017
Executive	5	5	5	5	5
Full-time employee	143	149	149	157	166

Numbers on 1 April of each fiscal year

Creating Diverse World-Level Knowledge

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

Purpose

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

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



KAKENHI Logo

Features

(1) Japan's core competitive funding

The annual scale of KAKENHI is approximately ¥228.4 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.

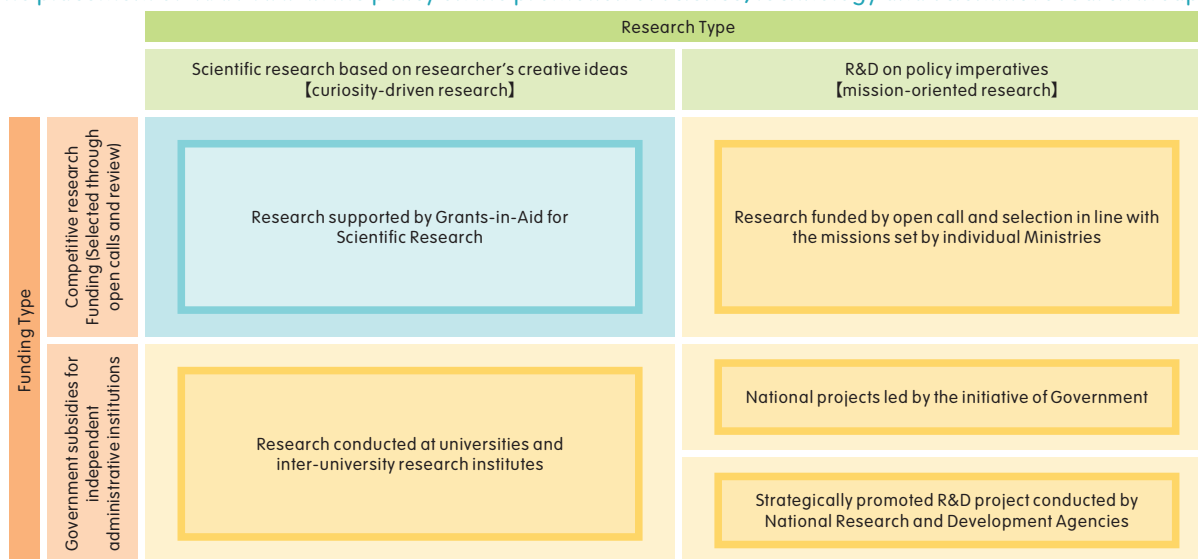
(4) Fair and equitable application review

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



Contents

(1) Research Categories

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 2017 fiscal year (as of September 2017)

Research Categories	Purposes and description of each research category	Issuer M: MEXT J: JSPS	Status FY2017			Period for accepting FY2017 call for proposals	Provisional grant decision FY2017 (newly adopted proposals) ²⁾
			Applied	Adopted			
Grants-in-Aid for Scientific Research							
Specially Promoted Research	Highly regarded research in the international arena conducted by one researcher or a relatively small group of researchers and is likely to yield highly acclaimed research achievements (The period is three to five years. The upper limit of the total budget provided is generally set around 500 million yen per research project, though no exact budget range has been established.)	J	111		13	9/1~11/7	4/25
Scientific Research on Innovative Areas ^{*1,6}	(Research in a proposed research area) New research areas proposed by a group of diverse researchers which, through efforts for collective research, scholarly training, shared use of equipment, etc., will develop and lead to the upgrading and enhancement of scientific research in Japan (The period is five years. In principle, the budget is set at around 10 million to 300 million yen per fiscal year per field.)	Call for Proposals: M Review: M Grant delivery: J	5,925		1,007	9/1~11/7	6/30
Scientific Research ^{*3,4,6}	[S] Creative/pioneering research conducted by one researcher or a relatively small group of researchers (The period is five years. The budget ranges from 50 to around 200 million yen per project.)	J	645		81	9/1~11/7	5/31
	Creative/pioneering research done conducted by one researcher or jointly by multiple researchers (The period is three to five years.)(Classification of A, B and C depends on the total budget) (A) From 20 million to 50 million yen (B) From 5 million yen to 20 million yen (C) 5 million yen or less	J	(A)	2,567	636		4/1
		(B)	11,041	2,729			
Challenging Research	(Pioneering)(Exploratory) Research conducted by one or more researchers, that has the aim of significantly reforming or changing the scientific scheme or direction and has rapid growth potential. Further, (Exploratory) covers research projects that have a strong exploratory nature, or are in their beginning stages (Pioneering) 3~6 years from 5 million to 20 million yen (Exploratory) 2~3 years 5 million or less	J	(C)	40,486	11,983	9/1~11/7	6/30
		Pioneering	1,116	94			
Young Scientists ^{*3,4}	[A, B] Research conducted by one researcher aged 39 or less (The period is two to four years. Classification of A and B depend on the total budget) (A) from 5 million yen to 30 million yen (B) 5 million yen or less	J	(A)	1,837	433	9/1~11/7	4/1
		(B)	19,271	5,817			
Research Activity Start-up	Research conducted by one researcher who has just been employed by his/her research institution by one researcher who has returned from his/her childcare or other kinds of leave (The period is up to two years. The budget is up to 1.5 million per fiscal year.)	J	3,774		945	3/1~5/9	8/25
Encouragement of Scientists	Research conducted by one person who is an employee of an educational/research institution, a company employee, or others (The period is up to one year. The budget is above 100,000 and up to 1 million yen per project.)	J	4,065		732	10/1~12/5	4/1
Grant-in-Aid for Special Purposes ¹⁾	Funding of urgent and important research projects	Call for Proposals: M Review: M Grant delivery: J					
Grant-in-Aid for Publication of Scientific Research Results							
Publication of Research Results	Funding for the publication and/or international dissemination of research achievements of high academic values made by academic associations and other organizations	J	95		37	9/1~11/13	4/1
Enhancement of International Dissemination of Information	Funding for efforts of academic societies and other scholarly organizations to further enhance international dissemination of information for the purpose of international academic exchange	J	46		16		
Scientific Literature	Funding for academic publications authored by an individual or a group of researchers to publish academic research achievements	J	772		281		
Databases	Funding for databases created by an individual or a group of researchers for public use	J	135		52		
Grant-in-Aid for JSPS Research Fellows ^{*6}	Funding for research conducted by JSPS Research Fellows (including JSPS International Research Fellows) (for a period of up to three years)	J	1st recruitment	2,300	2,300	1/27~2/28	4/26
			2nd recruitment	4	4	1/27~2/28	7/1
			3rd recruitment	32	32	5/15~6/8	7/26
			4th recruitment	1	1	1/27~2/28	10/1
			5th recruitment			8/17~9/12	-
			6th recruitment			9/19~10/12	-
Fund for the Promotion of Joint International Research (FY 2016 Results)							
Fostering Joint International Research	For Joint International Research that a researcher selected by KAKENHI performs at a foreign university or research facility, covering a period from about 6 months to one year (up to 12 million yen)	J	629		212	7/1~9/5	1/27
International Group ^{*1}	Support for International Activities within Scientific Research on Innovative Areas (Set period of the Area, up to 15 million yen per year)	Call for Proposals: M Review: M Grant delivery: J	153		20	9/1~11/9	6/30
Returning Researcher Development Research	Research that is expected to take place when Japanese researchers who are currently residing abroad, return to Japan (period up to 3 years, up to 50 million yen)	J	35		12	9/1~11/7	3/23
Generative Research Field	Based on the latest academic trends, Generative Research Fields are established in Scientific Research (B/C) (The research period that can be applied for differs depending on the year of application.)	J	1,638		157	9/1~11/7	7/18

¹ Under the categories "Scientific Research on Innovative Areas," "Grant-in-Aid for Special Purposes," and "International Group," 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 2017. Those for projects under "Grant-in-Aid for JSPS Research Fellows" are issued on 26 April 2017.

³ All projects under "Scientific Research (C)," "Challenging Research (Exploratory)" and "Grant-in-Aid for Young Scientists (B)" are funded through the Multi-year Fund.

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

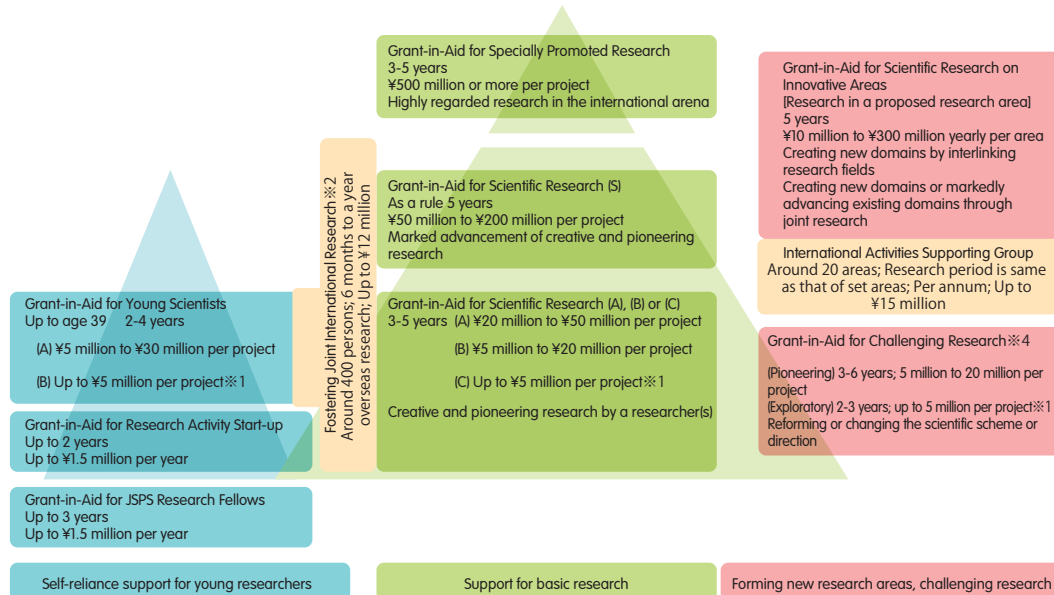
⁵ Excluded are the categories "Scientific Research on Innovative Areas (Research in a Proposed Research Area) "Platforms for Advanced Technologies and Research Resources", "Generative Research Fields" and "Specially Designated Research Promotion."

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

⁷ For the FY2017 review, about 5,300 reviewers participated in the 1st tier (document) reviews and about 600 participated in the 2nd tier (panel) reviews, making a total of about 5,900 reviewers.

⁸ 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: <http://kaken.nii.ac.jp/>

Research Categories of Grants-in-Aid for Scientific Research -KAKENHI-



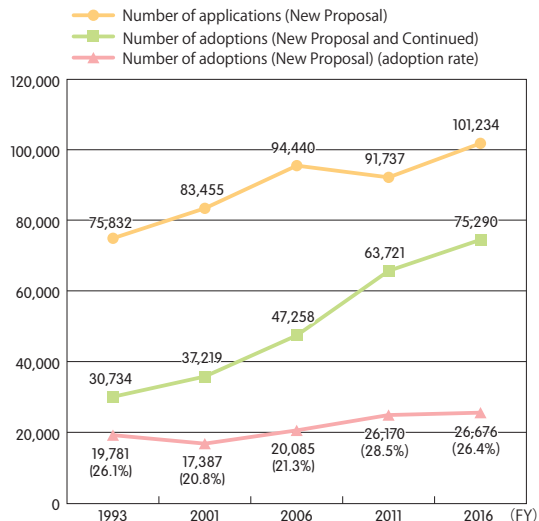
※1 Research categories covered by Multi-year Fund from FY 2011.

※2 Budgeted as Multi-year Fund and disbursed from the "Fund for the Promotion of Joint International Research" starting in FY 2015.

※3 Budgeted as Multi-year Fund and disbursed from the Fund for Generative Research Fields starting in FY 2015. (Application section is carried out on research categories Scientific Research (B/C) categories. The research period that can be applied for differs based on the fiscal year of the application.)

※4 From FY 2017, the category "Grant-in-Aid for Challenging Exploratory Research" is being revised and a new category "Grant-in-Aid for Challenging Research (Pioneering/Exploratory)" established. "Pioneering" projects will be handled under the Multi-year Fund; "Exploratory" projects will be handled as a series of Single-year Fund.

Number of applications and grants adoption



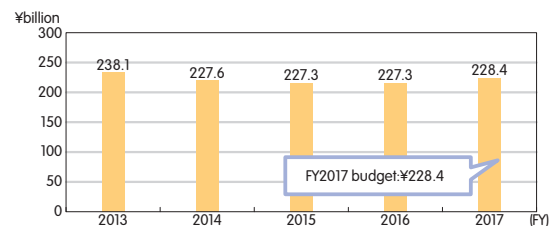
Excluding Encouragement of Scientists, the above graph gives the total of all KAKENHI categories. Projects adopted in or after FY 2014 under the category Generative Research Field are also excluded.

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

Budget

FY2017: Budget ¥228.4 billion

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. Looking at the program budget in terms of annual funds disbursed, the FY2016 budget was ¥227.3 billion while the FY2017 budget is ¥228.4 billion, for a ¥1.1 billion increase year on year.

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), 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, a 3-component reform is being made to the KAKENHI system: (1) Revision of the review system, (2) Revision of research categories and frameworks, and (3) Implementation of flexible and effective grant-usage system. The first two components are highlighted below.

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

Funding year Research category	FY 2016 (Call for proposals : Sep 2015)	FY 2017 (Call for proposals : Sep 2016)	FY 2018 (Call for proposals : Sep 2017)	FY 2019 (Call for proposals : Sep 2018)	
Specially Promoted Research	Revision of research categories (Emphasize challenging research, restriction on repeated grant acquisition)		Transition to new system		
Scientific Research on Innovative Areas	Revision of research categories toward Grant-in-Aid system reform from FY 2019				
Scientific Research (S)	「FY2018 Reform of the KAKENHI Review System」		Broad Section + Comprehensive Review		
Scientific Research (A)			Medium - sized Section + Comprehensive Review		
Challenging Exploratory Research	Enhancement revisions	Transform to “Challenging Research” (Precedent implementation of Medium-sized Section and Comprehensive Review)			
Scientific Research (B)	Design new review system				
Scientific Research (C)					
Young Scientists (A)	Revision of research categories (Appropriate way of support based on carrier build-up, etc.)		Basic Section + Two-Stage Document Review	Integrate to “Scientific Research”	Promotion of “KAKENHI Young Support Plan” (Improve the recruiting ratio for key items)
Young Scientists (B)		Trial of support for independence		“Early-Career Scientists” (*change name) (Quantity control, Implementation of independence, etc.)	

(2) Revision of the application review system (FY2018 Reform of the KAKENHI Review System)

Under the Grants-in-Aid for Scientific Research (KAKENHI), the review system for Scientific Research, etc. has 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 has spawned requests to improve both the application review system and its research categories. Concomitantly, there also exists 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.

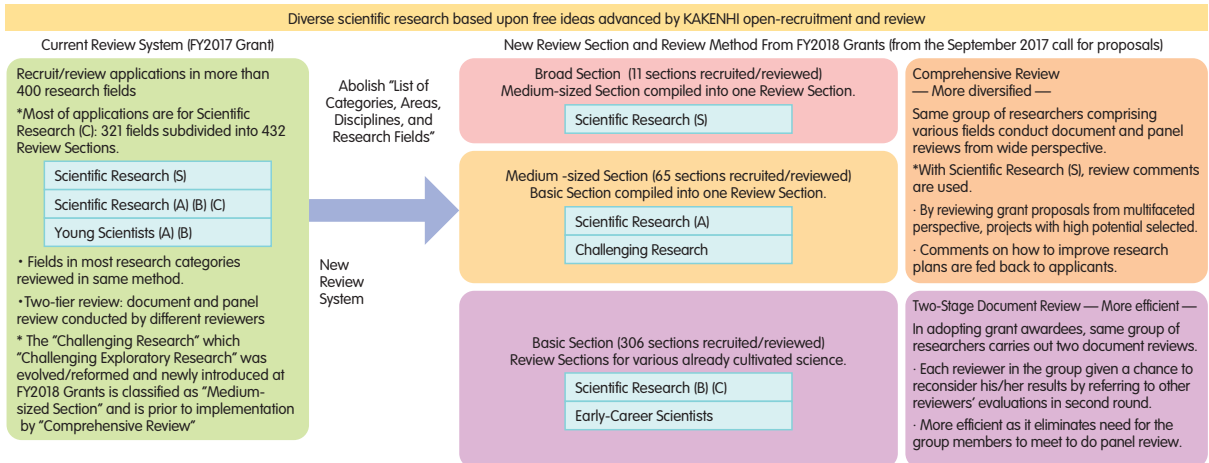
Against this backdrop and toward the Grants-in-Aid for Scientific Research for FY 2018 (from the September 2017 Call for proposals), MEXT and JSPS have revised KAKENHI Review Section and Review Method in the following ways:

- 1) The currently used List of Categories, Areas, Disciplines, and Research Fields has been replaced by a new Review Section Table comprising Basic, Medium-sized and Broad Sections.
- 2) We have introduced the Comprehensive Review in which document review and panel review are reviewed by the same reviewers and the Two-

Stage Document Review in which the document reviews in two-stage are reviewed by the same reviewers from method which the current

document review and the panel review are conducted by different reviewers. (The review method depends on the research category).

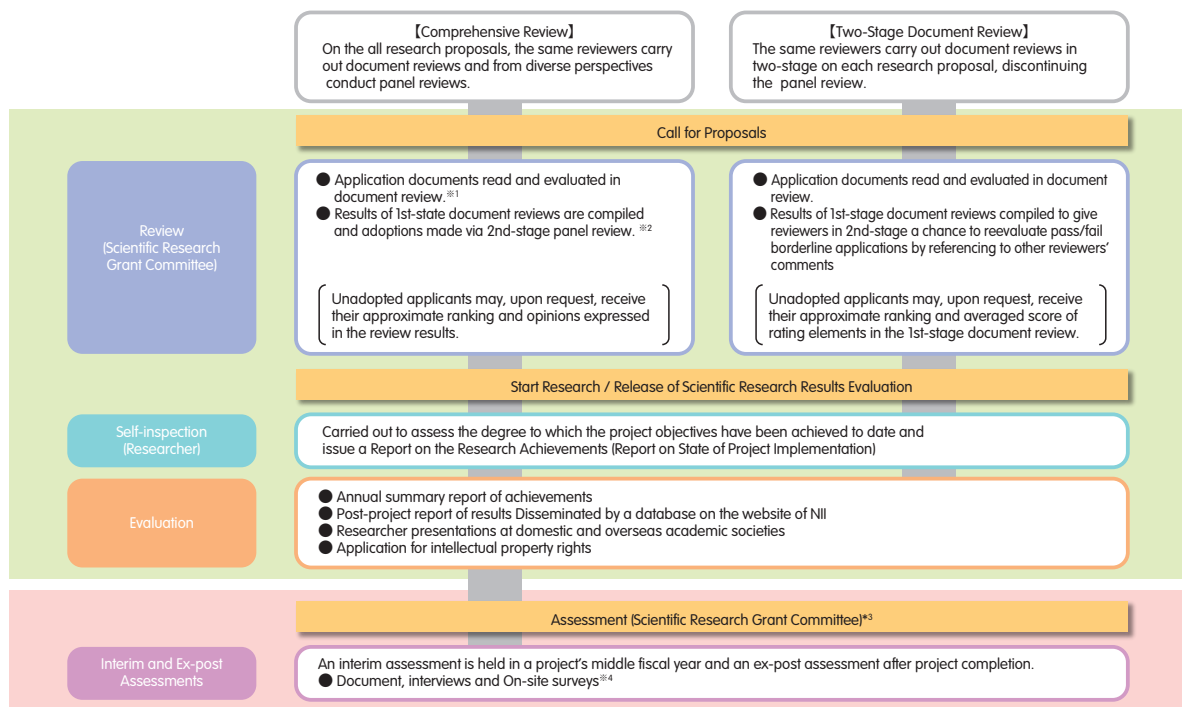
Summary - FY2018 Reform of the KAKENHI Review System



※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 it 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.

※5 Follow-up surveys will be carried out on the project adopted after FY2018 under Specially Promoted Research.

(3) **Revision of research categories and frameworks**
To strengthen support for more challenging research in ways that conform to the revised KAKENHI review system and that are in step with future scientific trends, the KAKENHI research categories and frameworks have been changed as follows.

The main revisions made to research categories are as follows:

1. Establishment of Grant-in-Aid for Challenging Research (Pioneering/Exploratory) (from FY 2017)

- This category aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development.

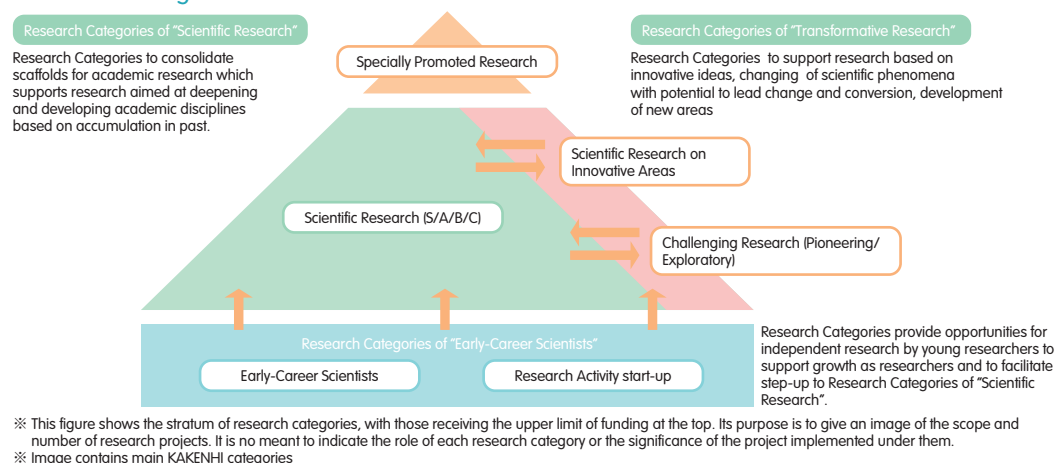
2. Grant-in-Aid for Specially Promoted Research (from FY 2018)

- This category targets outstanding and distinctive research that open up a new scientific field. Under it, principal investigators are limited to receiving only one grant.
- Amount of grant: From ¥200-500 thousand (Only in a truly necessary case, budget exceeding ¥500 million yen is asked for.)
- In a truly necessary case, period up to 7 years is acceptable.

3. Grant-in-Aid for Young Scientists (A/B) (from FY 2018)

- As an application requirement, the age limit will be changed to the requirement "Ph. D. acquired less than 8 years."
- Young Scientists (A) will be integrated into Scientific Research.

Image of research categories in FY 2018



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 FY 2017.

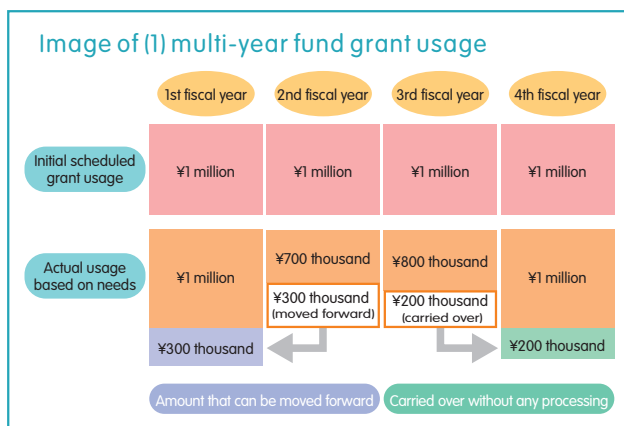
- Research projects adopted under Scientific Research (C), Young Scientists (B), Challenging Exploratory Research,

Challenging Research and Fostering Joint International Research (Fund for the Promotion of Joint International Research, Home-Returning Researcher Development Research).

- Research projects adopted under the Scientific Research (B) (Application section "Generative Research Fields") after FY 2015
- Research projects adopted under Fostering Joint International Research (International Activities Supporting Group) before 2016.

- 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.

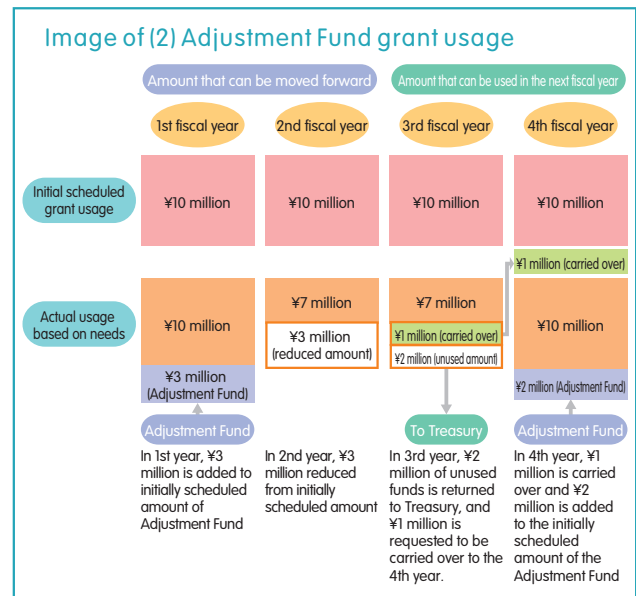


(2) Establishment of Adjustment Fund (FY 2013)-
Within the Grants-in-Aid program, an Adjustment Fund was established in FY 2013 and revised in FY 2014. Its purpose is to make the funding of projects that do not fall under the program's multi-year fund more flexible.

- * Main projects covered under the Adjustment Fund in FY2017.
- Research projects adopted under Specially Promoted Research, Scientific Research on Innovative Areas (excluding projects adopted in or before FY 2016 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 or before FY 2011 and in or after FY 2015 under Scientific Research (B) (excluding 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 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 Topic-Setting Program to Advance Cutting-Edge Humanities and Social Sciences Research

Purpose

Based on a report by Subdivision on Science, Council for Science and Technology, titled “Promotion of the Humanities and Social Sciences Addressing Risk Society and Matured Intellectual Society,” issued in July 2012, 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; and (3) international joint research that contributes to advancing the Humanities and Social Sciences.

Contents

This program is carried out in three subsets: (1) Area cultivation, (2) Responding to real society and (3) Global initiatives. The research itself is recruited in two categories: Topic-setting research on themes selected by the Program Committee and openly recruited research on themes proposed by researchers themselves. This dual structure is established to advance joint research in the most cutting-edge and cross-cutting fields of the humanities and social sciences.

(1) Selected Projects under "Area Cultivation"

Topic-setting research (2 projects)			
Research Areas	Research Themes	Core-Researcher	Affiliation
New advances in humanities and social sciences using analytical methods incorporating praxeology, cognitive science, and neural science	Exploring cognitive and neural foundations of normative and ethical judgments about social values	Tatsuya Kameda	Professor, Graduate School of Humanities and Sociology, The University of Tokyo
Shifts in social capital accompanying media advances	Development of Media and the Structural Transformation of the Public Sphere in the Risk Society: Theory Construction, Empirical Research and Simulation Analysis based on Comparative Ethology of Network Model	Kaoru Endo	Professor, Faculty of Law, Gakushuin University

Openly recruited research (10 projects)			
Research Areas	Research Themes	Core-Researcher	Affiliation
Dialogue between narrative theory and empirical analysis	Legal Pragmatics as Normative Theory: On Nullification of Hate Speech	Ichiro Ozaki	Professor, Graduate School of Law, Hokkaido University
	Construction of Sustainability Studies through the development of Community Power	Makoto Nishikido	Professor, Department of Humanity and Environment, Hosei University
New regional research spurred by information media advances	Chinese Studies under the New Chinese-language Information Environment: A Suggestion for the Nextgeneration Regional Research	Ken Suzuki	Professor, Faculty of Law, Meiji University
	Comparative Energy Policy and Discourse in Japan and Germany	Leslie Tkach-Kawasaki	Associate Professor, Faculty of Humanities and Social Sciences, University of Tsukuba
	Strengthening Disaster Resilience of Local Communities through Interactive Real-Time Area Studies over SNS and Cloud GIS	Takuro Furusawa	Associate Professor, Graduate School of Asian and African Area Studies, Kyoto University
Humanities and social science research on relationship between academic research changes and misconduct	Organizations and Society for Responsible Research and Innovation	Go Yoshizawa	Associate Professor, Graduate School of Medicine, Osaka University
New advances in humanities and social sciences using analytical methods incorporating praxeology, cognitive science, and neural science	Cognitive-neuroscience approach to power to live and creation of its educational-application research	Motoaki Sugiura	Associate Professor, Institute of Development, Aging and Cancer, Tohoku University
	Reflective Learning for the seniors through database creation and visualization of their life activities	Chieko Mizoue	Professor, Faculty of Library, Information and Media Science, University of Tsukuba
	Synthesizing historical sciences: New perspectives to cultural evolutionary studies	Yasuo Ihara	Lecturer, Graduate School of Science, The University of Tokyo
	Understanding the genetic foundations of cultural variation in cooperation with evidence from social psychology, neuroscience, and endocrinology	Keiko Ishii	Associate Professor, Graduate School of Humanities, Kobe University

as of April 2017

(1) Area Cultivation

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

(2) Responding to Real Society

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

(3) Global Initiatives

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

Budget

FY 2017: ¥208 million

Website

<http://www.jsps.go.jp/english/e-kadai/index.html>

(2) Selected Projects under "Responding to Real Society"

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 2017

(For reference) selected projects in FY2013

Topic-setting research: 2 projects

Openly recruited research: 11 projects

New ■ Extension ■

(3) Selected Projects under "Global Initiatives"

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 2017

3 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 center 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 globally visible 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.

During the 2017 fiscal year, in addition to issuing an open proposal call for two new WPI centers, a WPI Academy was established within MEXT. The Academy will 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 will 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 commissioned 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, independent administrative institutions, and public interest corporations
- Selection results
Eleven 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, and two new centers in FY 2017.
- Project duration
Ten years, with a possible 5-year extension for projects producing outstanding results. The centers selected in FY 2017 will not be eligible for an extension. Interim project evaluations are performed at the fifth year.
- Amount of grants
¥1.3-1.4 billion per year for projects selected in FY 2007 and FY 2010
Up to ¥700 million per year for projects selected in FY 2012 and FY 2017
- 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.

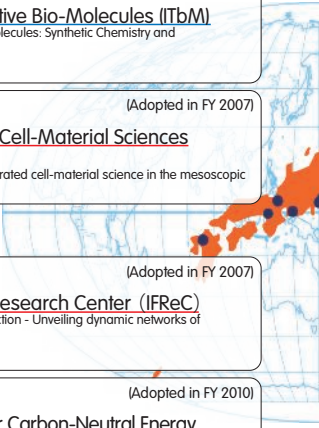
Budget

FY 2017: ¥6.0 billion

Website

<http://www.jsps.go.jp/wpi>

Outline of the centers



 Nagoya University Institute of Transformative Bio-Molecules (ITbM) Changing the world with molecules: Synthetic Chemistry and Plant/Animal Biology Director: Kenichiro Itami (Adopted in FY 2012)	 Tohoku University Advanced Institute for Materials Research (AIMR) Establish a World-Leading Research Organization in Materials Science Director: Motoko Kotani (Adopted in FY 2007)
 Kyoto University Institute for Integrated Cell-Material Sciences (iCeMS) Creating a new field of integrated cell-material science in the mesoscopic domain Director: Susumu Kitagawa (Adopted in FY 2007)	 University of Tsukuba International Institute for Integrative Sleep Medicine (IIIS) World-class institute for sleep medicine, aiming to solve the mechanism of sleep/wakefulness by conducting basic to clinical research Director: Masashi Yanagisawa (Adopted in FY 2012)
 Osaka University Immunology Frontier Research Center (IFReC) Observation of immune reaction - Unveiling dynamic networks of immunity - Director: Shizuo Akira (Adopted in FY 2007)	 National Institute for Materials Science International Center for Materials Nanoarchitectonics (MANA) Materials Nanoarchitectonics - New paradigm of materials development - Director: Takayoshi Sasaki (Adopted in FY 2007)
 Kyushu University International Institute for Carbon-Neutral Energy Research (I²CNER) The Grand Highway for a Carbon-Neutral Energy Fueled World Director: Petros Sofronis (Adopted in FY 2010)	 The University of Tokyo Kavli Institute for the Physics and Mathematics of the Universe (Kavli IPMU) Cross-Disciplinary Research Center for Addressing the Origin and Evolution of the Universe Director: Hitoshi Murayama (Adopted in FY 2007)
	 Tokyo Institute of Technology Earth-Life Science Institute (ELSI) Globally-Advanced Interdisciplinary Research Hub for Exploring the Origins of Earth and Life Director: Kei Hirose (Adopted in FY 2012)

※ Five centers adopted in FY 2007 are certified as WPI Academy members (underlined in red).
 ※ WPI grants currently support five centers (underlined in blue).
 ※ Two more centers were selected in September 2017.



Outreach Activity at AAAS Annual Meeting 2017 in Boston



Program Committee Meeting



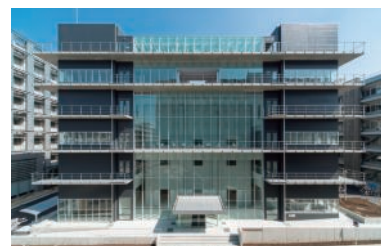
University of Tsukuba
International Institute for Integrative Sleep Medicine (IIIS)

(Adopted in FY 2012)



Tokyo Institute of Technology
Earth-Life Science Institute (ELSI)

(Adopted in FY 2012)



Nagoya University
Institute of Transformative Bio-Molecules (ITbM)

(Adopted in FY 2012)

4 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

To support the improvement of research-ethics educational efforts by research institutions, lecturers are dispatched to conduct training sessions at them. To this end, JSPS also holds symposiums and workshops in cooperation with the Japan Science and Technology Agency (JST) and Japan Agency for Medical Research and Development (AMED).

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.

Website

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

Budget

FY2017: ¥39 million



The 8th Science Forum, titled “Toward Improved Ethics and Greater Scientific Advancement” (Osaka, November 2016)

Building Robust International Cooperative Networks

1 Promoting International Joint Research

Purpose

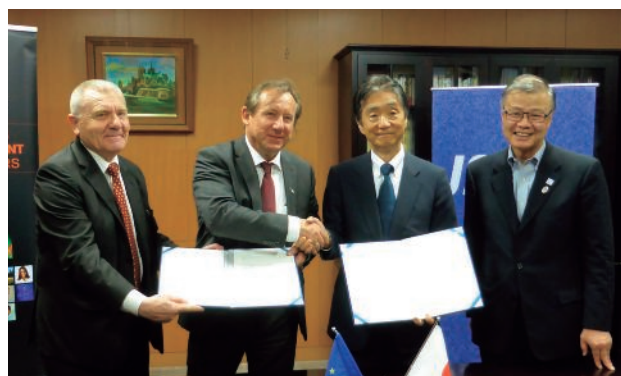
- Raise the standard of Japanese research and strengthen its international competitiveness by supporting international joint research projects or seminars
- Address the international joint research needs of emerging and still-developing countries, while responding to changing global trends in scientific research
- Strengthen networks for multinational exchange with top-level scientific research organizations in partner countries, and support initiatives that foster young researchers
- Support efforts by Japanese universities and research institutions to make themselves into research and education hubs of the highest world standard in fields of cutting-edge science
- Assist Japanese universities and research institutions to become leading research centers and core research and education centers to solve issues prevailing in the Asian and African regions.

Features

- (1) Implementing strategic and responsive programs
 - Carry out various programs taking into consideration with both the needs of Japan and counterpart countries
- (2) Forming Equal Partnerships and Responding to New Scientific Exchange Needs
 - Support research collaborations in which researchers from each country based on agreements with counterpart funding agencies
 - Provide supports to Japanese researchers and research organizations to carry out joint research projects and seminars with countries that do not have agreements with JSPS and to respond changing global trends in scientific research collaboration

(3) Securing and fostering young researchers

- Provide opportunities for talented young researchers to build working networks and encourage them to participate actively in research collaborations



Signing ceremony for JSPS - EC/ERC Implementing Arrangement (Tokyo, May 2015)

Programs

(1) Supporting Bilateral Collaborations with Partner Countries

JSPS advances international scientific exchange between Japan and counterpart countries tailored to meet diverse bilateral needs.

① Bilateral Collaborations (Joint Research Projects and Seminars)

Support is provided for forming sustainable networks by bilateral research teams created through exchange among individual researchers.

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 Projects and Seminars with all countries that have diplomatic relations with Japan, plus Taiwan and Palestine

Funding amount and period:

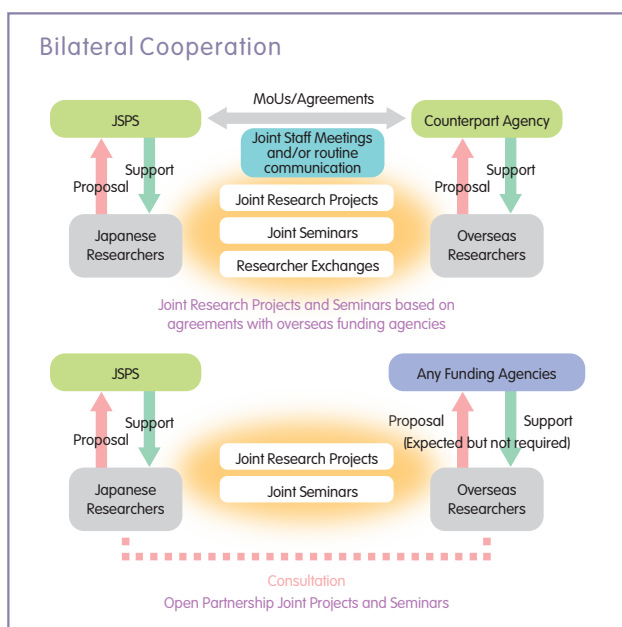
Joint Research Projects: ¥1-3 million per year for 1-3 years

Joint Seminars: ¥1.2-2.5 million per seminar of up to one week in duration

* Funding Amount and period may differ by country and counterpart agency.

Website

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



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.

Visit funding and period: International airfare and maintenance allowance from 14 days to 2 years

* Support may differ by country and counterpart agency.

* 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.

Website

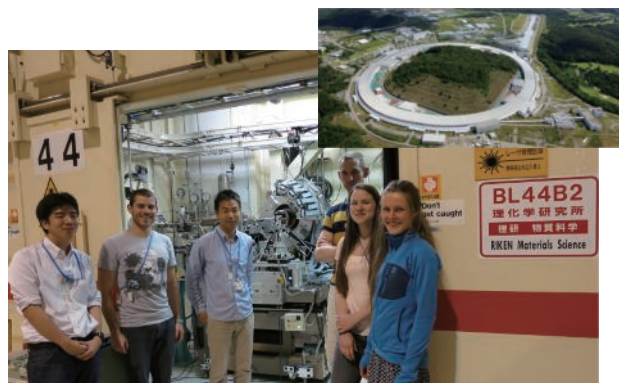
<http://www.jsps.go.jp/english/e-bilat/researcher.html>

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

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



Bilateral Collaboration (Open Partnership Joint Project) between Japan and Denmark

PI in Japanese side: Eiji NISHIBORI, Professor, University of Tsukuba

(2) Advancing International Joint Research

· International Joint Research Programs

In an effort to respond to global developments in scientific research, JSPS works in cooperation with overseas science-promotion organizations to advance joint research carried out between excellent researchers in Japanese universities and research institutes and their counterparts in other countries. It also uses this program to enhance and expand training opportunities for young researchers.

The following four programs are being carried out under the International Joint Research Program.

Website

<http://www.jsps.go.jp/english/e-bottom/index.html>

International Joint Research Programs

Program name	Counterpart country/institution	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/year/project	Research grant Airfare Stipend Personnel cost	Up to 5 years
Joint Research Projects with SNSF (JRPs Program)	Switzerland/SNSF	FY2016: Humanities, social sciences, biology, medicine/dentistry FY2018: Mathematical/physical sciences, chemistry, engineering, agriculture			Up to 3 years
Open Research for Social Science (ORA Program)	France/ANR; Germany/DFG; UK/ESRC; Netherlands/NWO	Social sciences			
JSPS-NSF International Collaboration in Chemistry (ICC Program)	US/NSF	Chemistry	Up to ¥15 million/year/project		

(3) Supporting the Establishment of Research and Education Hubs

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

① Core-to-Core Program

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

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

Website

<http://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. Projects under this program must be carried out with at least two other countries and require counterpart research organizations to secure matching funds equivalent to JSPS's grant.

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



Discussion with the researchers from France at Tohoku University (Photo by Institute of Fluid Science, Tohoku University)



Workshop on Ainu Culture at (S-1) International Field School in Rebun Island (Photo by Center for Ainu and Indigenous Studies Hokkaido University)



Joint Investigation at (S-1) International Field School in Rebun Island (Photo by Center for Ainu and Indigenous Studies Hokkaido University)

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.

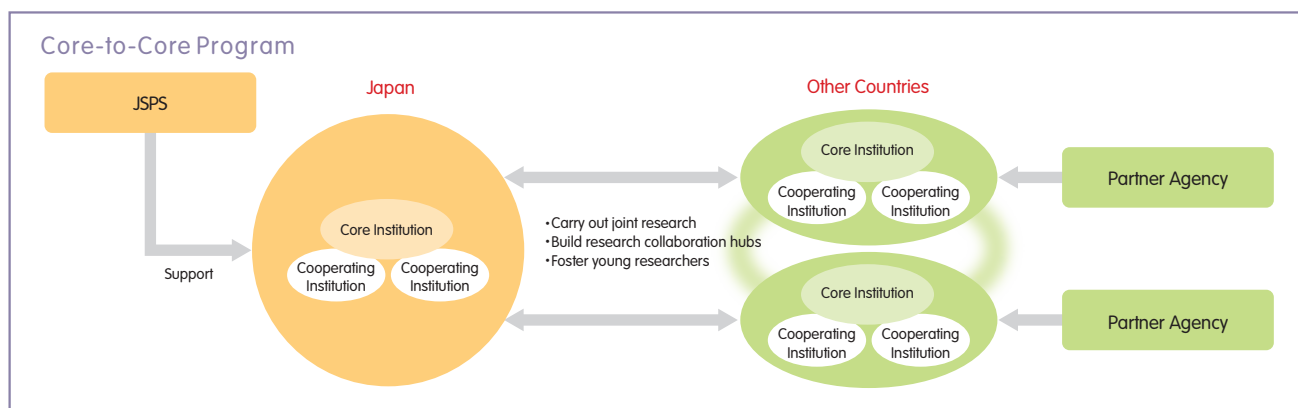
Target research	Research topics of special importance or significance to Asia and/or Africa and considered to be of high priority within Japan
Target countries	Two or more Asian and/or African countries having diplomatic relations with Japan
Project funding	¥8 million/year
Project period	Up to 3 years



Group discussion at young researcher's workshop in Indonesian Institute of Sciences (LIPI) (October 2016) (Photo by The Kyoto University Museum, Kyoto University)



Seminar on malaria elimination in the Lake Victoria area: from islands to main land in Kenya (Photo by Graduate School of Medicine, Osaka City University)



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 24)

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

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

Themes	FY2017: Emerging materials Innovation 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
Project funding	¥50 million/5 years
Project period	Up to 5 years



Photo of international meeting in Beijing, China (Photo by Graduate School of Medicine, Tohoku University)

2 Forming International Research-Support Networks

Purpose

Form various networks to support international research and cultivate an expansive environment in which Japanese researchers and research institutions can effectively carry out international research activities

Features

(1) Collaboration with counterpart science-promotion organizations

- Engage in discussions with science-promotion agencies of other countries on a broad range of topics, including the solution of commonly experienced funding issues

(2) Support for building networks among researchers in- and outside Japan

- Support activities carried out within alumni communities of researchers who have participated in JSPS programs
- Provide an Internet-accessed database to facilitate cooperation among researchers in- and outside Japan

(3) Support for international research exchange through JSPS's overseas offices

- JSPS's ten overseas offices in nine countries support efforts by Japanese researchers and universities to form international networks

Programs

(1) Strengthening Linkage with Science-Promotion Agencies of Other Countries

① Global Research Council

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 GRC annual meeting is scheduled to be held in Moscow, Russia in May 2018, cohosted by the Russian Foundation for Basic Research (RFBR) and the National Research Foundation of Korea (NRF).

Website

<http://www.jsps.go.jp/english/e-grc/index.html>
<http://www.globalresearchcouncil.org/>

List of past GRC annual meetings

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



The 6th GRC Annual Meeting (Canada, May 2017) ©Cynthia Münster-Münster photography



The 5th GRC Annual Meeting (India, May 2016)



The 6th GRC Annual Meeting (Canada, May 2017)
©Cynthia Münster-Münster photography

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

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

※HORCs: Heads of Research Council

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

To promote high-level research activities in Asia with Japan, China and Korea at their core, the heads of leading science-promotion agencies in the three

countries meet annually to discuss face-to-face S&T policy trends and the state of international collaboration in their respective countries. Initially proposed by JSPS, these meetings have been held each year from 2003. Discussions in them have yielded various tangible outcomes including the establishment of the “A3 Foresight Program” and “Northeastern Asian Symposiums,” jointly implemented by JSPS and its partner agencies in China and Korea.



The 14th A-HORCs Meeting (China, November 2016)

(2) Strengthening Researcher Networks

① Forming a Researcher Community

To form and maintain a network between itself and former JSPS fellows and among the fellows themselves, JSPS supports the creation of an alumni community through such means as issuing a newsletter and conducting follow-up activities. At present, alumni associations of former JSPS fellows have been established in eighteen countries. These associations hold seminars, symposiums and other events to promote exchange between their members and Japanese colleagues and to stimulate interest in young researchers for doing research in Japan under JSPS's fellowship and other programs.

Website

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



The Inaugural JSPS Alumni Association Australia (JSPSAAA) Science Symposium (Australia, October 2017)

② BRIDGE Fellowship Program

Directed to the members of JSPS's alumni community, this program provides opportunities for former JSPS fellows to revisit Japan for the purpose of creating, sustaining or strengthening collaborative relations with Japanese colleagues. While in Japan, the BRIDGE fellows conduct joint research or seminars, carry out training activities for young researchers, give lectures, or build networks with researchers by participating in conferences held in Japan.

Website

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

③ Network Support Service

JSPS has created and placed into operations a database, JARC-Net, that compiles and provides access to information on overseas researchers and specialists who have experienced study or research in Japan and on Japanese researchers who are interested in conducting collaborative activities with colleagues in other countries. JARC-Net strengthens and expands the interpersonal networks already cultivated over long years of research exchange between Japan and counterpart countries/areas. In 2017, JSPS launched a social networking service, JSPS-Net, to support the creation of a network of Japanese researchers overseas, and to facilitate a new collaboration in the researchers community worldwide.

Website

(JARC-Net)

<http://www.jsps.go.jp/english/e-affiliated/index.html>

(JSPS-Net)

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

Alumni community



 GERMANY Established in 1995 	 FRANCE Established in 2003 	 UK Established in 2004 	 US Established in 2004 
 SWEDEN Established in 2005 	 INDIA Established in 2006 	 EGYPT Established in 2008 	 Eastern Africa 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 
 Indonesia Established in 2016 	 Australia Established in 2017 		

*1 The German alumni community includes other German-speaking 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.

(3) Advancing the Strategic Use of JSPS's Overseas Offices

JSPS operates eleven liaison offices in ten countries as below:

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

● Main functions

- (1) Liaising with overseas counterpart research-promotion organizations
- (2) Holding symposiums
- (3) Supporting the overseas outreach activities of Japanese universities
- (4) Coordinating with alumni networks formed among former JSPS program participants
- (5) Disseminating information on scientific trends in Japan and gathering similar information from host countries
- (6) Supporting researchers doing fieldwork

● Joint Use of JSPS Overseas Offices

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

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

● Overseas Internships for University Administrative Staffs

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



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



Symposium Held to Celebrate the 50th Anniversary of JSPS Nairobi Research Station

This year, a symposium was held to celebrate the 50-year landmark of the JSPS Nairobi Research Station's operation. Positioned as a pre-event to TICAD6, the symposium was themed "Anniversary of 50 Years of African Studies and Japan-Africa Cooperation in the Future." The event was attended by some 130 people, including Kyoto University president Dr. Juichi Yamagiwa (former director of the Nairobi Research Station), Nagasaki University president Dr. Shigeru Katamine, and JSPS president Dr. Yuichiro Anzai.

Website

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

3 Mobilizing the World's Best Brains while Fostering Internationally Vigorous, Young Researchers

Purpose

Foster young Japanese researchers who will play active global roles on the international stage by providing platforms for them to engage in absorbing discussions with excellent young researchers from other countries

Features

- (1) 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
- (2) Inviting excellent overseas researchers in all fields and career levels to Japanese universities and research institutions
 - Carry out a large-scale program to invite overseas researchers at all career levels from graduate students to senior researchers, across a full spectrum of research fields to Japan

Programs

(1) Providing International Training Opportunities for Young Researchers

① HOPE Meetings—Five Days with Nobel Laureates

HOPE Meetings are held to foster the next generation of researchers upon whose shoulders the future of S&T advances in Asia-Pacific and Africa will rest, while working to build collegial networks among them. These annually held meetings provide an opportunity for excellent graduate students and young researchers specially chosen from within the regions to interact directly with Nobel laureates and other of the world's most leading scientists. Held in February 2017 and chaired by Dr. Makoto Kobayashi (2008 Nobel Laureate in physics), the ninth in the series of HOPE Meetings brought 110 young researchers from 22 countries/regions together with seven renowned lecturers including Nobel laureates in fields of physics, chemistry, and physiology/medicine.

Website

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



Lecture by Dr. Takaaki Kajita (2015 Nobel Laureate in physics) at 9th HOPE Meeting



Dr. Klaus von Klitzing (1985 Nobel Laureate in physics) leading group discussion at 9th HOPE Meeting



Poster of the 10th HOPE Meeting



The 9th HOPE Meeting (Tokyo, 26 February-2 March 2017)

② Grant for Attending Lindau 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 countries around the world. JSPS nominates candidates from Japan to the Council and pays their travel-related expenses to participate in these Lindau Meetings.

Website

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

③ Academic Workshops & Seminars for Young Researchers

Based on an agreement signed with counterpart agencies, JSPS provides financial support for holding workshops and science seminars in all areas of research including the humanities and social sciences.

Website

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



Lecture at Lindau Nobel Laureate Meeting



FAPESP-JSPS Joint Research Workshop in São Paulo, February 2015
(photo by Chiba University)

④ Nobel Prize Dialogue

JSPS co-organizes Nobel Prize Dialogue Tokyo with Nobel Media AB, the public relations arm of the Nobel Foundation. Held as an open forum, the Dialogue engages a host of Nobel Laureates and distinguished researchers and experts from Japan and abroad in a spirited dialogue with young researchers and members of the public. It was inspired by “Nobel Week Dialogue” held in Sweden since 2012 on the day before the Nobel Prize Award Ceremony. JSPS had previously co-organized Nobel Prize Dialogue Tokyo 2015, which was the first time for the Dialogue to be venues outside of Sweden, and the second Dialogue in February 2017.

Website

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

Videos from Nobel Prize Dialogue

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



More than 1,000 attendees (Nobel Prize Dialogue Tokyo 2017) ©Nobel Media AB Photo Alexander Mahmoud



Prof. Jean-Pierre Sauvage (2016 Nobel Laureate in chemistry) (Nobel Prize Dialogue Tokyo 2017) ©Nobel Media AB Photo Yuki Kato



Prof. Susumu Tonegawa (1987 Nobel Laureate in physiology or medicine) (Nobel Prize Dialogue Tokyo 2017) ©Nobel Media AB Photo Yuki Kato



Nobel Laureates Discussion (Nobel Prize Dialogue Tokyo 2017) ©Nobel Media AB Photo Alexander Mahmoud

Event	Date	Venue	Theme	The number of panelists
Nobel Prize Dialogue Tokyo 2015	1 March, 2015	Tokyo International Forum	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 (Tentative)	Pacifico Yokohama Conference Center (Tentative)	The Future of Food	Around 25 including Nobel Laureates

⑤ Frontiers of Science (FoS) Symposia



In these symposia, talented young researchers from Japan and the counterpart country lodge together so as to concentrate their time and effort on advancing cross-disciplinary discussions on leading-edge scientific topics across a spectrum of research domains. Cosponsored by partner agencies, 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

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

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)



The 13th Japanese-German Frontiers of Science (JGFoS) Symposium (Potsdam, October 2016)



The 2nd UK-Japan Frontiers of Science (UK-Japan FoS) Symposium (Milton Keynes, November 2016)



The 15th Japanese-American Frontiers of Science (JAFoS) Symposium (Irvine, December 2016)

(2) Inviting Excellent Researchers from Other Countries to Japan

Career stages of researchers

Pre-and post-doctoral researchers				Postdoctoral researchers			
JSPS Postdoctoral Fellowships for Research in Japan							
JSPS Summer Program 2 months		Strategic Program 3 to 12 months		Short-term 1 to 12 months		Standard 12 to 24 months	

① JSPS International Fellowships for Research in Japan

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

Young pre- and postdoctoral researchers from France, Germany, Sweden, the UK, Canada and the US 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.

- FY 2016: 115 (13 from France, 12 from Germany, 5 from Sweden, 10 from the UK, 10 from Canada and 65 from the US).

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 at the postgraduate level to Japan to create collaborative research relationships with Japanese colleagues.

- FY 2016: 21 (10 from Switzerland and 11 from the US)

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

Young pre- and postdoctoral researchers come to Japan for relatively short tenures (for 1-12 months) to conduct joint research at a Japanese institution. Researchers from the following countries are eligible: the European Union countries, Norway, Russia, Switzerland, Canada and the US.

- FY 2016: 177 (30 from Germany, 29 from France, 23 from the US, 22 from the UK, and 73 from other countries).

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

This program allows researchers affiliated with Japanese universities or research institutes to invite promising young researchers from overseas to Japan to participate in collaborative research activities at their institutions for 1-2 years.

- FY 2016: 775 (from 70 countries)

E. JSPS Postdoctoral Fellowship for Research in Japan (Pathway to University Positions in Japan)

Aimed at promoting the employment of overseas researchers in full-time position at Japanese universities, this program offers the universities a funded means of inviting postdoctoral researchers from other countries to do pre-employment research in their institutions.

(Recruitment to be stopped in FY 2018 to review program)

- FY 2016: 19 (from 10 countries)

Associate and assistant professors

Professor

Nobel laureate

	JSPS Invitational Fellowships for Research in Japan		
Pathway to University Positions in Japan 12 to 24 months	Long-term 2-10 months	Short-term 14-60 days	Short-term S 7-30 days

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

Overseas researchers of a mid-career to professor level are invited to Japan for relatively longer periods of time to conduct joint research with Japanese colleagues on specific research themes.

- FY 2016: 97 (from 27 countries)

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

Overseas researchers of a mid-career or higher level (professor level) are invited to Japan for relatively short periods of time to hold discussions and engage in opinion exchanges with Japanese researchers and to deliver lectures.

- FY 2016: 257 (from 46 countries)

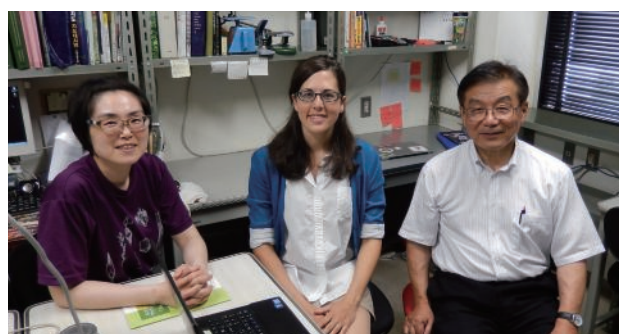
H. JSPS Invitational Fellowship for Research in Japan (Short-term S)

Under this program, Nobel laureates and other eminent scientists with records of outstanding achievements who are currently playing active roles as leaders in their fields are invited from other countries to Japan. They are expected to deliver lectures, guide research etc. in some universities and research institutions during their stay in Japan.

- FY2016: 2



Dr. Cheng-Hsiu TSAI from University of Otago (Taiwan) (National Museum of Nature and Science, June 2016)



Ms. Jenna E. DOREY from City University of New York (USA) (Okayama University of Science, July 2016)

Website

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

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

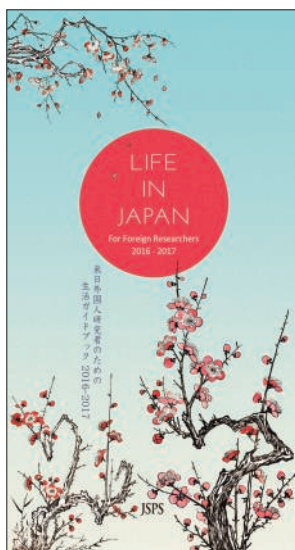
This program supports excellent researchers from Asian and African countries who wish to receive a PhD from a Japanese university by submitting a dissertation without matriculating a doctoral course. The program is appraised for allowing the fellows to earn a doctoral degree without having to be absent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



Medal-awarding ceremony at Thai alumni association in Bangkok, February 2017

Website

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



[LIFE IN JAPAN]

③ JSPS Fellows Plaza

A variety of services are provided to support the stays of JSPS fellows during and after their research tenures in Japan. These include the following:

(i) For JSPS Present Fellows

- Distributing an guidebook “Life in Japan for Foreign Researchers” with useful information on living in Japan for free
- Holding an orientation for newly arriving fellows

(ii) For former JSPS Fellows

- Support forming a Researcher Community (JSPS Alumni Association) and its activities (page 25)
- Conducting BRIDGE Fellowship Program (page 25)

(iii) For all JSPS Fellows

- Publication and free-distribution of the JSPS newsletter “JSPS Quarterly” (page 51)
- Dissemination of information over the portal site “JSPS Fellows Plaza”
- Conducting “Japan-Affiliated Research Community Network (JARC-Net)” (page 25)
- Management and Operation of “JSPS Researchers Network (JSPS-Net)” (page 25)

Website

<http://www.jsps.go.jp/english/e-plaze/index.html>



Experiencing the tea ceremony during orientation



Japanese cultural experience (orientation)

1 Fostering Young Researchers

1) Research Fellowships for Young Scientists

Purpose

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

Features

(1) Core program for fostering young researchers

This fellowship program is Japan's core program for cultivating young researchers here in Japan, with 5,636 participating fellows in FY 2017.

(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

Fellowship categories

Categories	Eligibility	Tenure	Monthly stipend (FY 2017)	Research grant (Grant-in-Aid for JSPS Fellows)
DC	· 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/year
PD	· 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	· 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	· Hold a doctoral degree · Excellent researchers chosen from PD candidates · Transfer to another university graduate school	3 years	¥446,000	Up to ¥3 million/year

candidates to receive SPD fellowships.

- 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.

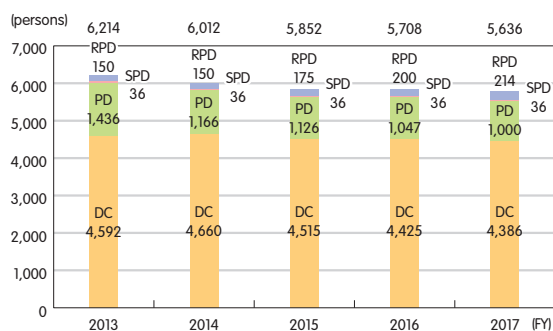
Budget

FY 2017: ¥16.1 billion

Website

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

Total Number of Fellowships



Selection ratios(%)

	FY2013	FY2014	FY2015	FY2016	FY2017
DC1	25.8	23.7	21.9	21.8	20.7
DC2	25.9	23.3	21.9	21.8	20.5
PD・SPD	19.2	11.7	11.2	12.5	13.2
RPD	17.7	21.4	26.0	28.2	27.3

FY 2017 RPDs include persons scheduled to be selected.



Ms. Hisae Yoshida (DC, Nihon University)



Dr. Mariko Ikeda (PD, Tokyo Gakugei University)

Restart Postdoc (RPD) Fellowship

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

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

Number of new awardees per year: About 75

Eligibility

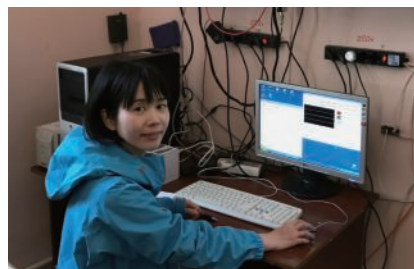
- Postdoctoral researchers who have within the past 5 years suspended their research for a

period of 3 months or longer for the purpose of child birth and infant nursing.

- No restriction on age or gender.

Tenure: 3 years

Monthly stipend (FY 2017): ¥362,000



Dr. Akiko Fujimoto (RPD, Kyushu University)

2) 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 institutions that provide posts for excellent young researchers under this program must be either universities, colleges of technology, interuniversity research institute corporations, national research and development agencies, public research and development institutes, or companies incorporated in Japan. The posts they provide can be in any field of the humanities, social sciences, or 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

Up to ¥6 million in first and second fiscal years (Up to ¥4 million for humanities and social science fields)

2) Costs of building research environment

Up to ¥3 million in first and second fiscal years (Up to ¥2 million for humanities and social science fields)

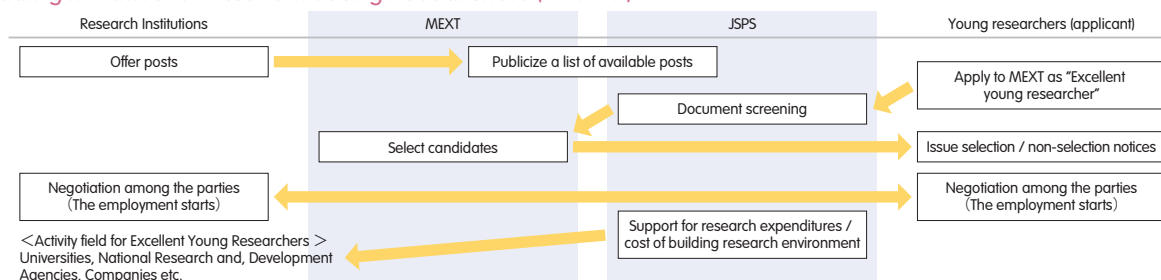
Up to ¥2 million in third through fifth years

Budget

FY2017: ¥1,510 million

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

Leading Initiative for Excellent Young Researchers (LEADER)



2 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) was launched in FY 2016. This 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 by young researchers

Opportunities are provided for excellent young Japanese researchers to collaborate with colleagues at top level overseas research institutions.

(2) Leave for child birth and infant nursing

Fellows are allowed to take leave for child birth and infant nursing and then return to their fellowships.

Framework

(1) Stipend/research grant and airfare:

Fellows are provided roundtrip international airfare to/from their destination, and a stipend, and a research grant. (Yearly amount of stipend is ¥3.8~5.2 million, varying by destination.) Under the RRA program roundtrip airfare is also provided for accompanying children along with a child allowance. (10% of stipend / grant for each child).

(2) Tenure: 2 years

(3) Screening:

A fair and transparent screening process is carried out by JSPS's Screening Committee for Young

Researcher Fellowships, comprising frontline Japanese researchers.

(4) **Target fields:** All fields of the humanities, social sciences and natural sciences

(5) **Eligibility:**

- Postdoctoral researchers employed as full-time researchers in Japanese universities, research institutions or national laboratories
- Postdoctoral researchers who aspire to the above full-time research positions

Budget

FY2017: ¥2.0 billion

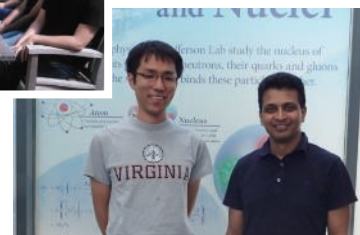
Website

<http://www.jsps.go.jp/e-ab/index.html>



Dr.Mami OIKAWA University of Cambridge(United Kingdom)

Dr.Yoshitaka TAIRA
Mississippi State
University(United States of America)



Selection ratios (%) for Overseas Research Fellowships

FY	2013	2014	2015	2016	2017
Selection Ratios	23.7	24.8	17.5	19.3	20.8

Selected RRA fellows are included in the ratios from FY 2016. Including selections scheduled for FY 2017.

Destination and Number of Researchers Dispatched to Each FY 2016

USA	226	Belgium	7	Hong Kong	1
Germany	36	Sweden	4	Mexico	1
U.K.	29	Italy	4	Korea, Rep.	1
Switzerland	21	Russia	2	Kenya	1
France	20	Taiwan	2	Denmark	1
Canada	19	China	2	Singapore	1
Australia	10	Israel	2	Finland	1
Netherlands	10	Vietnam	1	Total	411
Austria	8	Spain	1		

2) Overseas Challenge Program for Young Researchers

Objective

Newly launched in FY 2017, 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

Targeted are doctoral students who have not experienced overseas stays for the purpose of doing research. They are free to choose the period of their overseas stays within a framework of three months to one year.

Contents

(1) Financial Support:

- Round-trip international airfare
- Maintenance allowance of from ¥1 to 1.4 million per dispatch irrespective of length of overseas stay (amount differs by destination)
- Research funding (bench fees of up to ¥200 thousand)

(2) **Period of Overseas Stay:** Three months to one year from the date of dispatch

(3) **Target fields:** All fields of the humanities, social sciences and natural sciences

(4) **Eligibility:** Doctoral students at a Japanese university who have not experienced an overseas stay of 90 consecutive days or longer

Budget

FY2017: ¥260 million

Website

<http://www.jsps.go.jp/english/e-abc/index.html>

3) Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers

The content of this program was revised in FY 2014

Purpose

This program supports initiatives by Japanese universities and research institutes to conduct world-standard joint research with top-class overseas institutions, through which bidirectional exchanges are carried out between the partnering institutions—with the participating Japanese institutions dispatching young researchers for long-term stays abroad and inviting researchers from overseas counterpart institutions to Japan. The program is aimed at fostering excellent young researchers who will form the core of future international research networks, while working to add strength and vitality to those networks.

Features

This program supports universities and research institutes in Japan that carry out international joint research through the overseas dispatch of young Japanese researchers and the hosting of researchers from other countries. As a rule, the young researchers dispatched and overseas research invited under this program are associate and assistant professors, or researchers in equivalent positions.

Content

(1) Financial Supports

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

(2)Fields

All fields of the humanities, social sciences and natural sciences

(3) Eligible institutions

- a) Japanese universities, inter-university research institute corporations, junior colleges and colleges of technology
- b) National Research and Development Agency
Independent administrative institutions and other institutions which conduct scientific research or R&D activities
- c) Research institutions in private sector

*b) and c) are required eligibility to apply for Grants-in-Aid for Scientific Research (KAKENHI)

(4)Duration of Projects

1-3 years

(5) Young researchers eligible for long-term overseas stays

- In principle, young associate professors, assistant professors and lecturers (or equivalents) affiliate with eligible Japanese universities and research institutes are entitled to participate in this program. Postdoctoral researchers or equivalents may also participate if necessitated by the research plan.
- Period of overseas stay: In principle, one year or longer. As a rule, each visit must be at least 3 months.

(6) Researchers eligible for stays in Japan

- In principle, associate professors, assistant professors and lecturers (or equivalents) affiliate with counterpart overseas research institutions are eligible to participate in this program. Postdoctoral researchers and professor (or equivalents) may also participate if necessitated by the research plan.
- No limitation is placed on the length of their stays at the Japanese host institution.

Number of programs supported by fiscal year

< >Number of new Projects selected the year

	FY2012	FY2013	FY2014	FY2015	FY2016
Programs	124 (28)	84 (28)	80 (24)	64 (12)	48 (12)

New selections by field

	FY2014		FY2015		FY2016	
Research Area	Selected	Applied	Selected	Applied	Selected	Applied
Humanities and Social Sciences	3	13	1	10	2	9
Mathematics; Physical Sciences; Chemistry; Engineering Sciences	9	34	5	35	4	30
Biological Sciences; Agricultural Sciences; Medical, Dental, Pharmaceutical Sciences	8	29	4	31	4	30
Integrated Disciplines	4	15	2	15	2	15
Total	24	91	12	91	12	84

Number of dispatches by destinations

Destination	FY2012	FY2013	FY2014	FY2015	FY2016	Total
Asia	67	36	118	55	41	317
Oceania	18	7	9	28	28	90
Africa	11	11	34	21	25	102
Europe	250	209	408	401	259	1527
Russia & NIS	4	11	11	1	1	28
North America	165	111	196	247	195	914
Central/South America	15	2	6	5	1	29
Total	530	387	782	758	550	3007

Total number of researchers invited

Destination	FY2014	FY2015	FY2016	Total
Asia	27	49	62	138
Oceania	1	8	19	28
Africa	0	5	0	5
Europe	34	103	148	285
Russia & NIS	4	3	5	12
North America	22	52	84	158
Central/South America	0	0	2	2
Total	88	220	320	628

Budget

FY2017:¥1.1billion

Website

<http://www.jsps.go.jp/english/e-zunoujunksan3/index.html>

3 Enhancing the Education and Research Functions of Universities

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) The program works to foster leaders who can play active global roles across wide swaths of academia, industry and government.
- (2) Support is provided to develop degree programs that integrate master's and doctoral programs and assure of level of quality that is recognized worldwide—programs underpinned by internationally excellent education and research resources and designed with participation of experts from not only academia but also the industrial and governmental sectors.

- (3) In line with the program's purpose, grant-based funding is provided to excellent doctoral students selected to participate in the new degree programs.

Framework

Open recruitment was carried out in three categories defined by types of leader to be fostered and issues to be addressed.

(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.

Number of Selections

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

● Funding period: Up to 7 years

● Follow-up

A follow-up review of this program is carried out by going to the participating universities and talking to their faculties, staffs and students. Question-and-answer sessions are held and site visits made to observe their educational programs. While ascertaining the state of program progress at each university, guidance and advice is provided where deemed necessary.

● Evaluation

An interim evaluation is performed in the fourth year of each project, and a post-project evaluation is conducted in the seventh year. In FY2017, post-project evaluations are carried out on projects selected in FY2011.

Budget

FY2017: ¥15.0 billion

Website

<http://www.jsps.go.jp/english/e-hakasekatei/index.html>



The 5th Student Meeting of Leading Graduate Schools (July 2017, Nagano)



The pamphlet "Program for Leading Graduate Schools, AP, Program for Promoting Inter-University Collaborative Education" can be downloaded from the website of each program.

2) 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 evaluates projects.

Features

Theme I: Active Learning

Sought is the development of well-rounded ability in students. This includes intellectual, theoretical and social capabilities, refinement, knowledge and experience fostered in them by university faculties and active-learning methodologies.

Theme II: Visualization and Assessment of Student Learning Outcomes

Various indices are used to visualize future educational achievements, based on which action is taken to improve the university's educational content and teaching methodologies.

Theme III: Reforming University Entrance Examinations, Reforming Connections between High schools and Universities

① Develop and implement a university admission system in which candidates are evaluated and selected based on a multifaceted, comprehensive assessment of their motivations, abilities and aptitudes.

② Reforming Connections between High schools and

Universities

Strengthening mutual understanding between high schools and universities by establishing common educational objectives, contents and methodologies, through which to promote closer collaboration between them.

Theme IV: Long-term Extramural Training (in gap year)

Programs for extramural training spanning periods of one month or longer are developed and carried out for the purpose of fostering system that allows students to study independently.

Theme V: Quality Assurance of Overall University Education

Based on three policies, objective systems are developed for objectively assessing the capabilities that university students have acquired at the time of their graduation, while methods are devised to help graduating students more visibly exhibit those capabilities within society. Concurrently, an advice and assessment system is created and carried out in cooperation with external experts to contribute to quality assurance in university education.

Content

● 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 III ①	3 < 8 >
	Theme III ②	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 & 2019:

Follow-up; FY2020: Post-project evaluation after the funding period ends.

Budget

FY2017: ¥1.5 billion

3) Program for Promoting Inter-University Collaborative Education

Purpose

This program works to advance the building of inter-university educational and quality-assurance systems that respond to various societal demands. Inter-university collaborations under the program transcends the type of university, be it national, public or private. The most excellent inter-university initiatives are selected and given priority financial support with an aim to improving education and its quality while profiling universities and colleges by their mission.

JSPS has established a committee within its organization to evaluate the projects.

Features

Project categories are established in correspondence to the societal fields in which students are being trained to enter.

Regional

Universities and colleges within a region build networks, while putting in place an integrated educational and quality-assurance infrastructure for the benefit of students living in the region, one that overarches the frameworks of individual universities and colleges so as to take optimal advantage of their various educational resources.

Academic

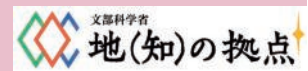
Universities and colleges build networks, creating a

higher level of education and quality assurance that cannot be achieved by any one university.

Content

- Number of projects:
 - 25 regional collaborations (186 participating universities and colleges)
 - 24 academic collaborations (115 participating universities and colleges)
- Funding period: Up to 5 years (Support ended in FY 2016)
- Evaluation
 - FY 2014-15: Interim evaluation of the projects were carried out, FY 2014 and 2015, follow-up reviews in FY 2016, and post-project evaluations after in FY 2017 the funding period ends.

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



Purpose

This program was established to improve upon Center of Community (COC) program, which was initiated in FY 2013 to profile universities by their missions and to create hubs of universities that contribute to the regeneration and vitalization of regional communities. COC+ supports universities that collaborate with public organizations and companies within the region, that work to pioneer and create attractive places of employment for their graduates, and that carry out educational curriculum reform in ways that cultivate the kind of vocations needed within the region.

JSPS has established a committee within its organization to screen applications and evaluate projects.

Features

To vitalize regional industry whose employees are educated in regional universities and to grow the population of regional communities, a consortium of universities within a region team up with public bodies that carry out regional vitalization policies, companies that employ local people, and NPOs and community organizations that carry out regional vitalization activities for the purpose of creating employment opportunities and increasing the percentage of university graduates who settle in the region. In accomplishing these objectives, the universities form an organic bond with the regional community. They also design their educational curricula in ways that cultivate the kind of vocations needed within the region.

COC portal site
(operated by Kochi University)



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

Content

● 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

Evaluations of projects under the University COC Program (Centers of Community) were carried out in FY 2016 along with follow-up reviews of COC+ projects. For the COC+ projects, interim evaluations were held in FY 2017, with more follow-up reviews scheduled for FY 2018 and 2019. Post-project evaluations will be held in FY 2020 after the funding period ends.

Budget

FY2017: ¥3.6 billion

5) Inter-University Exchange Project

Purpose

This program gives focused funding to projects that form higher-education networks and linkage with strategically important countries and regions. In doing so, it seeks to strengthen the global development capacity of Japanese universities while fostering excellent human resources who will play an active role on the global stage. While building an internationally recognized system of high-quality university education in Japan, the program supports projects that advance the international exchange of excellent Japanese students and the strategic acceptance of overseas students. A program committee established within JSPS screens applications and evaluates projects.

Features and Content

● Number of selections

Fiscal Year	Type	Selections <Number of applications>
FY 2011* (Support ended)	Type A: "CAMPUS Asia" Support for Forming a Core Center	13 <103>
	I: Projects carried out among Japanese universities and universities in China and Korea	10 <51>
	II: Projects carried out with universities in China, Korea and Southeast Asian Nations (ASEAN) not covered under the above trilateral framework, which also implement coordinated exchange programs for credit transfers, transcript administration, and degree conferrals	3 <52>
	Type B: Support for Collaborative Education with Universities in the US and Other Western Nations	12 <80>
	I: Projects to support the implementation of collaborative education with universities in the US	7 <49>
	II: Projects to support the implementation of collaborative education with universities in Europe, Australia and other countries.	5 <31>
FY 2012 (Support ended)	Category I: Projects that establish a consortium among Japanese and ASEAN universities	9 <54>
	Category II: SEND (Student Exchange-Nippon Discovery) Program *1	5 <17>
FY 2013	AIMS Program (ASEAN International Mobility for Students Programme) *2	7 <25>
FY 2014	Projects carried out among Japanese universities and universities in Russia	5 <17>
	Projects carried out among Japanese universities and universities in India	4 <14>

Fiscal Year	Type	Selections <Number of applications>	
FY 2015	Projects carried out among Japanese universities and universities in Central and South America	8 <25>	
	Projects carried out among Japanese universities and universities in Turkey	3 <9>	
FY 2016	Type A-(1): Raising the level of CAMPUS Asia projects carried out under the pilot program	8 <8>	
	Type A-(2): Initiating new CAMPUS Asia projects	9 <22>	
	Type B: Promoting the implementation of projects that establish a consortium among Japanese and ASEAN universities	8 <52>	
FY 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>

*1 The program aiming to develop students as experts who will forge bridges between Japan and ASEAN countries in the future.

*2 The government-initiated program aiming to promote vibrant student mobility especially among Southeast Asian Nations.

- Funding period: Up to 5 years
- Screening: An application screening is carried out.
- Evaluation
Follow-up reviews are carried in the projects' second, fourth and fifth years, with a mid-term evaluation in their third year and a post-project evaluation after the funding period ends. In FY 2017, post-project evaluations are carried out on projects selected in FY 2012 and mid-term evaluations on projects selected in FY 2015. Other projects receive follow-up reviews.

Budget

FY 2017 ¥1.7 billion

6-1) Top Global University Project

Purpose

With an aim to elevating the international competitiveness of Japanese higher education, this program works to rigorously internationalize Japanese universities by establishing linkages between them and top-flight overseas universities and by advancing university system reforms. Priority support is given to universities that have top world-level education and research programs and to globally oriented universities that can drive the internationalization of Japan's higher-education community. 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 a potential to be ranked in the top 100 in world university rankings.	13 <16>	37 <109>
Type B: Global Traction Type -For innovative universities that lead the internationalization of Japanese society, based on continuous improvement of their current efforts.	24 <93>	

- Funding period: Up to 10 years
- Evaluation
Follow-up reviews of projects are carried out every fiscal year, except for the years in which interim evaluations are conducted in the projects' fourth (FY 2017) and seventh (FY 2020) year junctures. Then, a post-project evaluation is carried out in FY 2024 after the funding period ends.

Budget

FY 2017: ¥6.3 billion

6-2) Go Global Japan Project

Purpose

With an aim to fostering industrial personnel who can vigorously challenge global issues while playing an active role on the world stage, support is provided for the establishment of educational systems that strengthen students' ability to adapt to the global environment. A program committee established within JSPS screens applications and evaluates projects.



Features and Content

- Number of selection in FY 2012

< > Number of applications		
Category	Number	Total
Type A: University-wide Type	11 <41>	42 <152>
Type B: Faculty/school-specific Type	31 <111>	

- Funding period: Up to 5 years (Support ended in FY 2016.)
- Evaluation
Post-project evaluations are carried out in FY 2017.

7) Takuetsu Daigakuin Program (Provisional), A Commissioned Overview Project

JSPS is commissioned to carry out key components of this MEXT program "Takuetsu Daigakuin Program," which is scheduled to go into full operation in FY 2018. The program works to foster doctoral students who will become "highly skilled knowledge professionals." They will be expected to spearhead the creation and application of new genres of knowledge that can spawn values of a kind that will drive the next generation, while challenging the solution of issues in ways that spur societal innovations.

To optimizing the effectiveness of this program, JSPS has established a committee of experts charged with two main functions. (1) To conduct studies and research, including the compilation of information from the participating universities and their collaborating organizations, on the program content and implementation systems contemplated by the universities. When the program is carried by a university in collaboration with other organizations or joint research is included within the educational program, to ascertain whether such arrangements create systemic bottlenecks or otherwise diminish program efficiency. (2) To overview the program's grant application and screening procedures.

Budget: ¥19 million for FY 2017

1 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.



2017 Senior Program Officers

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) Specialized perspectives of researchers reflected in JSPS programs

Eight program groups are established within the Center so as to address the unique characteristics of each research field. Each group comprises two or three senior program officers and from eight to 21 program officers.

(3) Fair and impartial selection

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

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

Functions

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

For this purpose the Center holds periodic meetings. Twice a month, senior program officer meetings, attended by the Center's director, deputy directors, and the senior program officers of each research group, are convened to exchange and compile information and views and to formulate proposals and advice from scientific perspectives on the full spectrum of JSPS's programs. Once a month, the program officers meet to exchange updated information and news on research in their respective fields and to consider ways of applying them to JSPS's operations.

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

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

① Grants-in-Aid for Scientific Research

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

② JSPS Research Fellowships for Young Scientists

Program officers prepare lists of examiner candidates and participate in review meetings. They evaluate the performance of superlative postdoctoral (SPD) fellows, and they select candidates for the JSPS Prize and Ikushi Prize.

③ JSPS's international exchange programs

Program officers prepare lists of examiner candidates.

④ Carrying out verification and analysis of screening results

The Center's program officers verify and analyze the screening results of JSPS's various programs and uses the findings to select suitable, impartial 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 uses its findings to provide recommendations and advice on JSPS's various programs and overall operation. The results of these surveys are posted on JSPS's webpage (in Japanese).

(4) Reporting activities

To deepen understanding of the Center's activities within the researcher community, its staff conducts briefings in response to requests from universities and academies throughout Japan.

Website

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

2 Center for Global Science Information

Purpose

The Center for Global Science Information (CGSI), established in April 2013, collects and compiles information on JSPS's various programs and on the state of activities implemented by science-promotion organizations in other countries. Analyzing these data, the CGSI shares the results with JSPS's Research Center for Science Systems, which uses them to devise and propose ways to enhance JSPS's evidence-based programs.

Features

- (1) The CGSI strengthens JSPS's institutional autonomy and analytical capacity as a program-implementing organization. It does this by centralizing the management (collection, analysis and dissemination) of data on the application submission/selection and research results of JSPS's all activities.
- (2) The analyzed data by experts are proactively utilized by JSPS in establishing new science-promotion strategies and in enhancing its evidence-based programs.
- (3) Via linkage with JSPS's overseas offices, a quick and accurate grasp of scientific trends in other countries is obtained. JSPS, then, applies this information to the design and implementation of its programs.

Functions

- (1) Collecting and compiling information on JSPS's programs
Data are compiled on the application submission/selection and research results of JSPS's programs, and also are collected and compiled on domestic research trends germane to those programs.
- (2) Collecting and compiling information on overseas trends in scientific research and on the

state of program implementation by overseas science-promotion organizations

Information is compiled on overseas trends in scientific research advancement. Combining it with information on trends gathered by its overseas office, JSPS uses these data as reference in enhancing its programs.

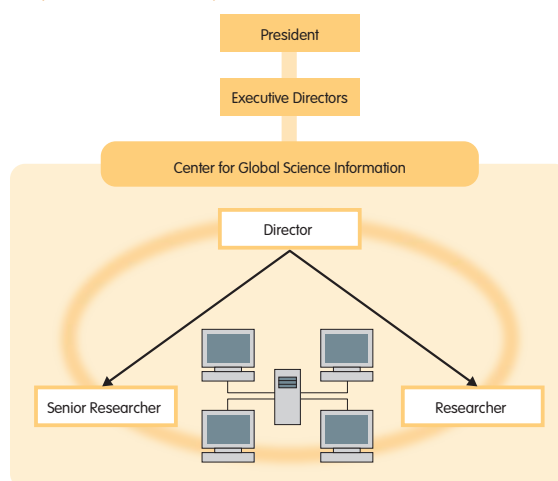
(3) Conducting data analyses and using the results to offer JSPS program-related proposals

Applying mathematical and metrical analyses to the data collected and compiled, the CGSI carries out studies that incorporate a perspective of worldwide trends in scientific research. Their results are forwarded to the Research Center for Science Systems and are used to formulate and offer proposals to JSPS on establishing new science-promotion strategies, enhancing its evidence-based programs, and improving its application screening systems.

(4) Providing information to universities and research institutions

The information collected and analyzed is also disseminated in the form of a CGSI Report to Japanese universities and other research institutions.

Implementation system



3 Information Services

(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

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



(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.

Website

<http://www.jsps.go.jp/english/e-quart/index.html>



(3) Social Media

JSPS uses social network services such as Facebook in carrying out its HOPE Meetings, Frontiers of Science Symposia and other programs and events so as to centralize and expedite the dissemination of information on them and their recruitments. To attract wide interest in JSPS's overall program via audiovisual media, an animated video introduction is placed on YouTube under the title "JSPS Supports Science."



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

4 Circulation and Promulgation of Research Results to Society

1) HIRAMEKI ☆ TOKIMEKI SCIENCE

- Welcome to a University Research Lab—Science that Inspires and inspires -
(Disseminating and feeding research results back into society)

Purpose

This program seeks to promote science study in Japan, ultimately advancing future research by cultivating intellectual curiosity and a rich sense of creativity in the young participants while instilling them with a keen awareness of science's cultural value and societal importance. Interesting lectures are given to the students in an easy-to-understand manner by KAKENHI grantees on their research activities. Over the course of the program to date, these sessions have been held at 1,314 institutions, attended by around 55,000 students.

Features

- Enhancing understanding of KAKENHI research and its results

These lecture sessions are held via the KAKENHI program at universities and research institutions throughout Japan. At them, researchers talk in easily understood language to elementary, middle, and high school student about their own creative and leading-edge research, giving the students a heightened understanding of the meaning of science and its roles in their daily lives.

In FY 2016, 330 of these sessions were held at 161 institutions, with a total attendance of 6,977 pupils and students who will go on to shoulder the future of Japan.

- Institution visit/experience-based program

The students visit labs at the hosting university or research institution, where they do experiments, conduct fieldwork, and participate in other hands-on activities. They are, thus able to directly see, hear and feel the results of leading-edge scientific

research.

- Eligible participants

Fifth and sixth grade elementary school pupils and middle and high school students participate in these visits. Teachers are encouraged to observe the sessions.



Let's find out the disease in the blood. (August 2016, Niigata University of Pharmacy and Applied Life Sciences)

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						
FY2007	35	54	7	11	36	47	-	-	-	-	78	112
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

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

2) Science Dialogue

Purpose

This program offers JSPS Overseas Fellows a unique opportunity to volunteer to give lectures in English on their research work and home countries at Japanese high schools in the vicinity of their host institutions. The aim of the lectures is to stimulate the young students' interest in research and deepen their understanding of science from a global point of view by interacting with the Fellows, hence fostering their potential to contribute to future scientific advancement. As for the Fellows, participation in the program offers them an enjoyable opportunity to interact with the local community and strengthen their ties with Japan.

Since this program was launched in FY 2004, the

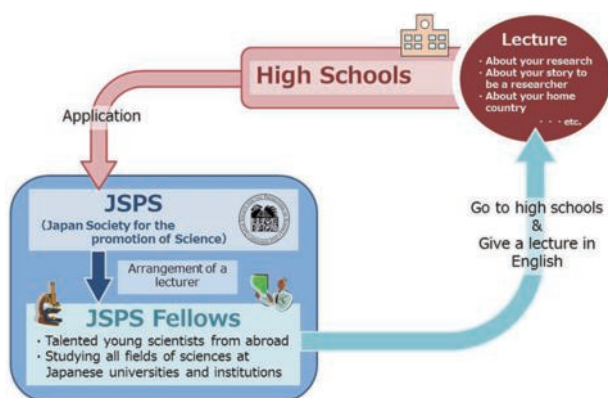
number of lectures given has been increasing year by year, reaching about 200 in FY 2016.

Feature

As to the procedure for carrying out the program, applications for receiving lectures by high schools and to give lectures by Overseas Fellows and submitted and matched by JSPS. Selected Fellows give their lectures in English, accompanied by a Japanese colleague who provides commentary on them. To heighten the interest of the students, the lecturer may engage the students in experiments or fieldwork. In FY 2016, 198 lectures were held at 82 high school.

Website

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



General flow of the program.



Dr. Faye Abigail Tolentino CRUZ from Manila University (Philippines) (Yamanashi prefectural Hikawa High school) (September 2017)



Dr. Ram Keshari DUWAL from Seoul National University (Korea) (Kumamoto prefectural Kawaura High school) (October 2017)



Diallo Jaspis-kun

3) Program for Publishing Noteworthy Contributions to Science and Technology

Purpose

This program has supported the creation of tools for giving open access to outstanding results across the full spectrum of scientific research. The research results of each academic society are placed in a database and separated between those oriented to researchers and those oriented to the general public so as to make them easier to retrieve and understand. Twenty one societies in twelve fields are now taking part in this program, expanding the content and dissemination of scientific research results being attained in Japan.

Features

The database is divided into major fields of research, with each research result conveyed in three categories: (1) A specialist-oriented category for

researchers and corporate technicians, (2) an introductory category for students from the junior high level and the general public, and (3) an English-language category. Included in the data are charts and diagrams, and photographs.

Fields	Participating Societies
Mathematics	The Mathematical Society of Japan
Physics	Nishina Memorial Foundation
	Toray Science 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

Contents

Established within JSPS, a program committee comprising representatives of the participating academic societies, the National Institute of Informatics, JSPS and leading authorities, sets the program's policy and oversees its implementation. Regarding their division of labor, the academic societies compile the data to be posted, the National Institute of Informatics maintains and operates the database, and JSPS convenes the committee meetings, coordinates program activities, and performs public relations and administrative functions.

Website

Program for Publishing Noteworthy Contributions to Science and Technology

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

Database on Noteworthy Contributions for Science and Technology

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

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

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.

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

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

Committee Name
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
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

research in their area of specialization, all within a free and informal atmosphere.

As of April 2017, there were 68 committees in active operation. They comprised a total of 4,000 members, 2,400 from academia and 1,600 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.

Committees for Research Promotion in Specialized Areas

Committee Name
Construction of Measurement/Characterization Platform Strategy for Open Innovation
Advanced Molecular Transformations by Organocatalysts
Multidisciplinary research on biological effects of radiation

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

Website

<http://www.jsps.go.jp/english/e-soc/index.html>

6 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.

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

Held at the Japan Academy in November or December of each year, the award ceremony is attended by Their Majesties the Emperor and Empress.



The Presentation Ceremony for the 2016 International Prize for Biology at Japan Academy (November 2016)

Website

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

Recent winners of the prize

24th	(2008)	Ecology	George David Tilman (US)
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)

2 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

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



The 13th JSPS Prize Ceremony at Japan Academy (February 2017)

13th (FY2016) JSPS Prize Awardees

Research Area	Names	Affiliation	Research Topics
Integrated Disciplines	SUGIYAMA Masashi	Director, RIKEN Center for Advanced Intelligence Project / Professor, Graduate School of Frontier Sciences, The University of Tokyo	Theory and Application of Machine Learning for Artificial Intelligence
	MATSUZAKI Masanori	Professor, Graduate School of Medicine, The University of Tokyo	Study of Cortical Plasticity Employing Optical Methods
	YAMAGISHI Jun-ichi	Associate Professor, Digital Content and Media Sciences Research Division, National Institute of Informatics, Research Organization of Information and Systems	Speaker Adaptation to Statistical Speech Synthesis and Its Application
Humanities and Social Sciences	KAWAGUCHI Daiji	Professor, Graduate School of Economics, The University of Tokyo	Econometric Analysis of Inequality in Japanese Labor Market
	NOMACHI Motoki	Associate Professor, Slavic-Eurasian Research Center, Hokkaido University	Typological Studies in Slavic Morphosyntax and Its Diachronic and Areal Changes: With Special Reference to Kashubian
	HIROSE Kunio	Associate Professor, Center for Research on Chinese Excavated Classics and Paleography, Fudan University	Proposing a New Interpretation of “Lü(律)” and “Ling(令)” in the Qin-Han Period, Based on a Reexamination of Historical Documents and Materials
	HOSHINO Takahiro	Professor, Faculty of Economics, Keio University	Latent Variable Approach to Selection Bias and Causal Inference
	MATSUMIYA Kazumichi	Associate Professor, Research Institute of Electrical Communication, Tohoku University	Psychophysical Study on Interactions between Visual Perception and Action
Mathematics; Physical Sciences; Chemistry; Engineering Sciences	SHIHO Atsushi	Professor, Graduate School of Mathematical Sciences, The University of Tokyo	Cohomologies and Fundamental Groups in p-adic Arithmetic Geometry
	CHIBA Daichi	Associate professor, Department of Applied Physics, The University of Tokyo	Study on Electrical Control of Magnetism
	TOMIOKA Katsuhiro	Associate Professor, Graduate School of Information Science and Technology, and Research Center for Integrated Quantum Electronics (RCIQE), Hokkaido University	Research on Heterogeneous Integration of Semiconductor Nanowires and Its Applications to Future Transistors
	MAEDA Kazuhiko	Associate Professor, School of Science, Tokyo Institute of Technology	Development of Artificial Photosynthetic Systems Based on Semiconductor Photocatalysts
	MASAOKA Shigeyuki	Associate Professor, Life and Coordination-Complex Molecular Science, Institute for Molecular Science, National Institutes of Natural Sciences	Water Oxidation Catalyzed by Transition Metal Complexes
	MURAKAMI Hiroshi	Professor, Graduate School of Engineering, Nagoya University	Ribosomal Synthesis of Peptides Involving Non-Natural Amino Acids
	YANAGIDA Takayuki	Professor, Graduate School of Materials Science, Nara Institute of Science and Technology	Development of New Phosphors for Measurement of Quantum Energy Conversion
	YOSHIDA Naoki	Professor, Graduate School of Science, The University of Tokyo	Large-Scale Numerical Simulations of Structure Formation in the Early Universe
	WAKABAYASHI Katsunori	Professor, School of Science and Technology, Kwansei Gakuin University	Theory of Nanoscale Effects on Electronic Properties of Graphene
Biological Sciences; Agricultural Sciences; Medical, Dental, Pharmaceutical Sciences	AKIYAMA Shuji	Professor, Research Center of Integrative Molecular Systems, Institute for Molecular Science, National Institutes of Natural Sciences	Structural and Dynamic Bases for Hierarchical Circadian Clock System in Cyanobacteria
	KATSUMA Susumu	Associate Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo	Studies on Small RNA-based Sex Determination Mechanism in Silkworms
	NAKATOGAWA Hitoshi	Associate Professor, School of Life Science and Technology, Tokyo Institute of Technology	Biochemical Elucidation of the Molecular Basis of Autophagy
	FUSHINOBU Shin-ya	Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo	Structural Bases and Molecular Evolution of Metabolic Enzymes Acting on Sugars and Sugar Phosphates
	MATSUMOTO Masayuki	Professor, Faculty of Medicine, University of Tsukuba	Diversity of Dopamine Signals: Elucidation of Reward Signal and Cognitive-Behavioral Signal
	MIYAGISHIMA Shin-ya	Professor, Department of Cell Genetics, National Institute of Genetics, Research Organization of Information and Systems	Identification of Proteins for Coordinated Proliferation of Eukaryotic Cells and Endosymbiotic Organelles
	MORO Kazuyo	Team Leader, RIKEN-IMS	Identification and Characterization of a Novel Immune Cell
	YAMADA Yasuhiro	Professor, Center for iPS Cell Research and Application, Kyoto University	Development and Application of <i>in vivo</i> Cellular Reprogramming Technology for Regulating Cancer Cell Fate

※ Titles and affiliations current as of 1 December 2016

3 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 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.

Content

(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. 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

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



The 7th Ikushi Prize Ceremony at Japan Academy (March 2017)

7th (FY2016) JSPS Ikushi Prize Awardees

Names	Affiliation	Research Topics
ARAZOE Hiroki	Graduate School of Engineering, The University of Tokyo	Novel Applications of Highly Oriented Graphitic Carbon Nitride
ITO Ami	Graduate School of Science, Nagoya University	Mechanism of Mitotic Spindle Pole Focusing
OGAWA (MITSUNOBU) Yukiko	Graduate School of Engineering, Tohoku University	Development of Super-Magnesium Alloy Through Novel Microstructure Control
KISHI Keiichi	Graduate School of Economics, Osaka University	Dynamic Analysis of Wage Inequality and Patent Policy in R&D-based Growth Models
KITAMURA Daichi	School of Multidisciplinary Sciences, The Graduate University for Advanced Studies	Multichannel Blind Music Source Separation Based on Nonnegative Matrix Factor Source Model
KINOSHITA Yoshiaki	Graduate School of Science, Gakushuin University	Construction of Bases for Observing the Swimming Motility in Archaea
KUBOTA Shimpei	Graduate School of Medicine, The University of Tokyo	Whole-Body/Organ Pathology of Diseases Caused by Minority of Cells with Proliferative and Stochastic Processes
GUNJI Megu	Graduate School of Agricultural and Life Sciences, The University of Tokyo	Evolution of Musculoskeletal Structure of Neck in Artiodactyls Associated with Neck Elongation and Its Genetic Background
KOYAMA Yuki	Graduate School of Information Science and Technology, The University of Tokyo	Development of Novel Frameworks for Computational Design Facilitation
SAVAGE Patrick E.	Graduate School of Music, Tokyo University of the Arts	Measuring the Cultural Evolution of Music : With Case Studies of British-American and Japanese Folk, Art, and Popular Music
SHIHOYA Wataru	Graduate School of Pharmaceutical Sciences, Nagoya University	Crystal Structures of The Human Endothelin Type B Receptor in Complex with Endogenous Agonist Endothelin-1 and Clinical Drugs
FUKADA Fumi	Graduate School of Life and Environmental Science, Kyoto Prefectural University	Studies on the Molecular Mechanisms of Cell Cycle and Plant Infection in the Plant Pathogenic Fungi
HORI Satoshi	Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology	Materials Developments of Superionic Conductors for Next-Generation Energy-Storage Devices
MASUDA Kento	Graduate School of Science, The University of Tokyo	Exploring the Architecture of Transiting Exoplanetary Systems with High-Precision Photometry
MURAI Yuki	Graduate School of Arts and Sciences, The University of Tokyo	Neural Mechanisms of Perceptual Stability in Space and Time
MOCHIDA Keisuke	Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology	Molecular Basis and Physiological Roles of Autophagic Degradation of the Nucleus and the Endoplasmic Reticulum
MORITA Madoka	Graduate School of Humanities and Sociology, The University of Tokyo	Between "Community Peace" and Public Order: Neighborhoods and Urban Administration in Istanbul (1730-54)

Affiliations current as of 1 May 2016

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.

Content

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>

6

Appendix

List of Programs

	Program			Term	Support	Charge section	Page
I Creating Diverse World-Level Knowledge	Grants-in-Aid for Scientific Research (KAKENHI)			1-6 years (differs by category)	Differs by category	University-Industry Cooperation and Research Program Division Research Aid Planning Division, Research Aid Division I, II	4
	Topic-Setting Program to Advance Cutting-Edge Humanities and Social Sciences Research	Area Cultivation		3 years	¥5 or 10 million a year per project	University-Industry Cooperation and Research Program Division	12
		Responding to Real Society			¥5 or 10 million a year per project		12
		Global Initiatives			¥10 or 20 million a year per project		12
	World Premier International Research Center Initiative			10 years	¥1.3-1.4 billion per year for projects selected in FY 2007 and 2010 Up to ¥700 million per year for projects selected in FY 2012 and 2017	WPI Program Center	15
	Research Integrity					Research Integrity Office	17
II Building Robust International Cooperative Networks	Bilateral Collaborations			Joint research: 1-3 years Seminars: within 1 week (differs by countries or agencies)	Joint research: ¥1-3 million a year per project Seminars: ¥1.2-2.5 million (differs by countries or agencies)	Bilateral Cooperation Division	18
	Researcher Exchange Program (Sending)			6 months-2 years (differs by countries or agencies)	Roundtrip international airfare, maintenance allowance (differs by countries or agencies)	Bilateral Cooperation Division	19
	Japanese-German Graduate Externship			Up to 5 years	Up to ¥15 million a year per project	Bilateral Cooperation Division	19
	International Joint Research Programs			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	19
	Core-to-Core Program	A. Advanced Research Networks		Up to 5 years	Up to ¥18 million a year per project	Research Cooperation Division	20
		B. Asia-Africa Science Platforms		Up to 3 years	Up to ¥8 million a year per project	Research Cooperation Division	21
	A3 Foresight Program			Up to 5 years	¥50 million per 5 years	Research Cooperation Division	22
	HOPE Meetings with Nobel Laureates			About 5 days	Domestic travel, food/ lodging, other participation costs	Research Cooperation Division	28
	Grant for Attending Lindau Meetings			About 1 week	Roundtrip international airfare, domestic travel, meeting participation costs including food/ lodging	Research Cooperation Division	29
	Academic Workshops & Seminars for Young Researchers			Seminars: 7-14 days Workshops: Up to 3 days	Up to ¥8 million per project	Research Cooperation Division	29
	Nobel Prize Dialogue			One day	Admission free of charge	Research Cooperation Division	30
	Frontiers of Science (FoS) Symposia			3 days	Roundtrip international airfare, domestic travel, food/ lodging	Research Cooperation Division	31
	II Building Robust International Cooperative Networks	JSPS International Fellowships for Research in Japan	JSPS Postdoctoral Fellowships for Research in Japan	A. Standard	12 to 24 months	Roundtrip international air ticket, maintenance allowance, settling-in allowance (differs by category)	Overseas Fellowship Division
B. Short-term				1 to 12 months			
C. Summer program				2 months			
D. Pathway to University Positions in Japan (Application recruitment stopped in FY 2018)				12 to 24 months			
E. Strategic Program				3 to 12 months			
JSPS Invitational Fellowships for Research in Japan			F. Long-term	2-10 months			
			G. Short-term	14-60 days			
			H. Short-term S	7-30 days			
RONPAKU (Dissertation PhD) Program			3 years	Roundtrip international airfare, maintenance allowance etc.	Overseas Fellowship Division	34	

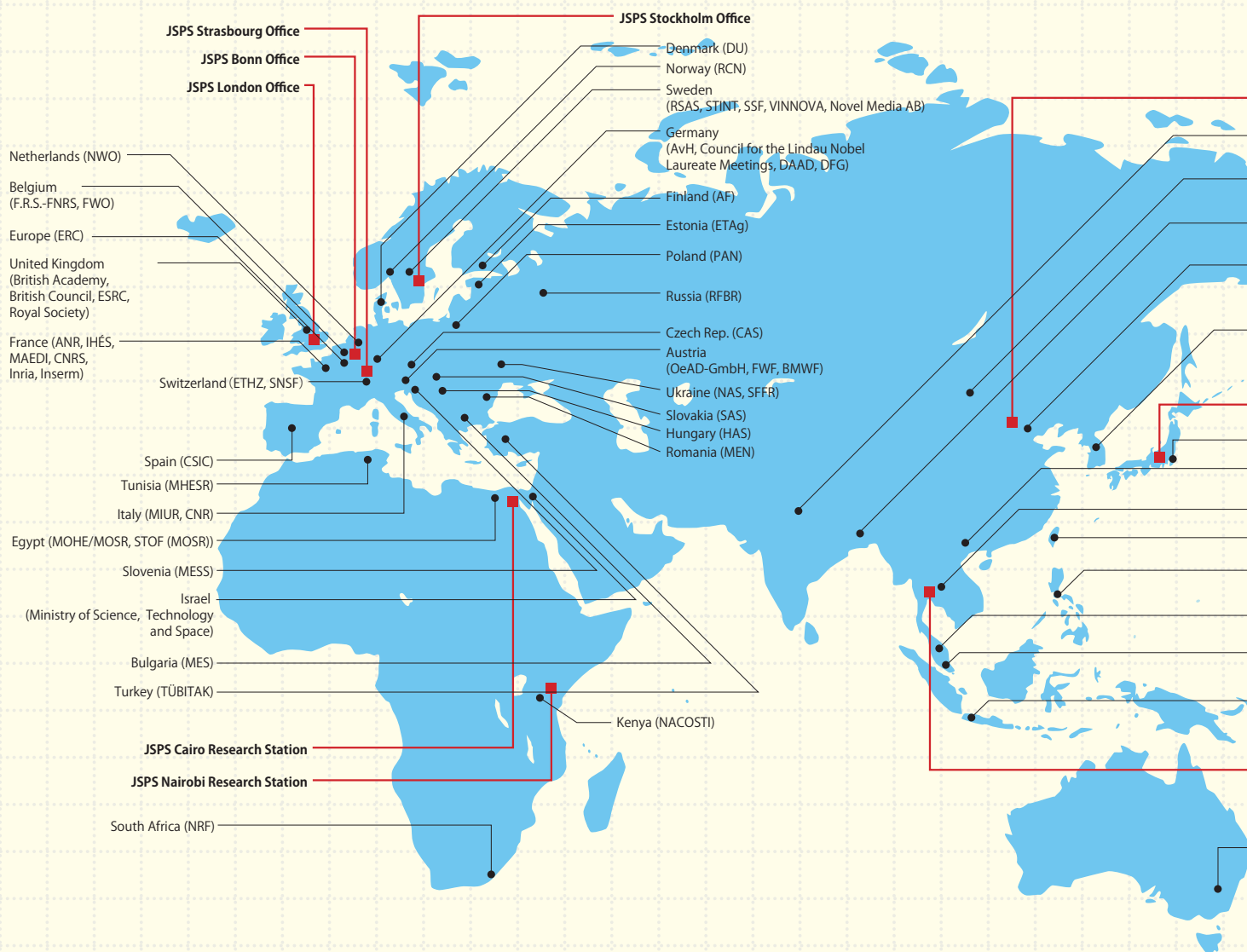
	Program		Term	Support	Charge section	Page
III Fostering the Next Generation while Enhancing the Education and Research Functions of Universities	Research Fellowships for Young Scientists		2-3 years	Fellowship: ¥200,000 to 446,000 per month Research grant: ¥1.5 to 3 million per year	Research Fellowship Division	35
	Leading Initiative for Excellent Young Researchers (LEADER)		Up to 5 years	Research funding: Limited to 1-2 years after selection: Up to ¥6 million per year (¥4 million for humanities and social science fields) Funding for building research environment: 1-2 years after selection: Up to ¥3 million per year (¥2 million for humanities and social science fields); 3-5 years after selection: Up to ¥2 million per year.	Research Fellowship Division	37
	Overseas Research Fellowships		2 years	Roundtrip international airfare, stipend/research grant ¥3.8-5.2 million per year	Overseas Training Program Division	38
	Overseas Challenge Program for Young Researcher		3 month-1 year	Roundtrip international airfare, maintenance allowance ¥1 to 1.4 million, research funding	Overseas Training Program Division	39
	Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers		1-3 years	Up to ¥40 million/year/project (in the first year, up to ¥25 million)	Overseas Training Program Division	39
	Program for Leading Graduate Schools		Up to 7 years	Up to ¥270-540 million a year per project	University Cooperation Program Division	41
	Acceleration Program for University Education Rebuilding (AP)		Up to 6 years	Up to ¥18-28 million a year per project	University Cooperation Program Division	43
	Program for Promoting Inter-University Collaborative Education		Up to 5 years	Up to ¥66 million a year per project	University Cooperation Program Division	44
	Program for Promoting Regional Revitalization by Universities as Centers of Community (COC+Program)		Up to 5 years	Up to ¥68 million a year per project	University Cooperation Program Division	44
	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	45
	Top Global University Project		Up to 10 years	Up to ¥200-500 million a year per project	University Cooperation Program Division	46
	Go Global Japan Project (Support ended)		Up to 5 years	Up to ¥120-260 million a year per project	University Cooperation Program Division	47
	Takuetsu Daigakuin Program (Provisional), A Commissioned Overview Project				University Cooperation Program Division	47
IV Building an Evidence-Based Science-Promotion Systems and Strengthening Linkage with Society	HIRAMEKI ☆ TOKIMEKI SCIENCE (Welcome to a University Research Lab - Science that Inspires and Inspirts)		During period from late July to late January each fiscal year	Up to ¥500,000 per program	University-industry Cooperation and Research Program Division	52
	Science Dialogue Program		Ongoing	Cost of teaching materials, domestic travel	Overseas Fellowship Division	53
	Program for Publishing of Noteworthy Contributions to Science and Technology				University-industry Cooperation and Research Program Division	53
	Fujita Memorial Fund for Medical Research		1 year	¥1 million per project	University-industry Cooperation and Research Program Division	56
	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		Budget and Accounting Division	56
		Contributions collected as specified tax-exempt donations	Within 1 year			

List of JSPS's Overseas Counterpart Institutions(94 institutions)

Region / Country		Counterpart Institution	Fellowships		Bilateral Programs		Multilateral and Other Programs
			Invitational Fellowship	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)				✓	✓
	India	Department of Science and Technology (DST)		✓	✓	✓	✓
		Indian Council of Historical Research (ICHR)				✓	
		Indian Council of Social Science Research (ICSSR)				✓	
	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 and Science (MECS)					✓
	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/Ministry of Scientific Research (MOHE/MOSR)				✓	✓
		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)		✓			✓
	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 of Foreign Affairs and International Development (MAEDI)				✓	
		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 Institution	Fellowships		Bilateral Programs		Multilateral and Other Programs	
			Invitational Fellowship	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	Novel 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)						✓
	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)		✓				✓
		Canadian Institute for Advanced Research (CIFAR)						✓
		Canadian Institutes of Health Research (CIHR)		✓				
		Natural Sciences and Engineering Research Council of Canada (NSERC)		✓				
		Royal Society of Canada (RSC)						✓
	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 and Space						✓
		Israel Science Foundation (ISF)					✓	
International Organizations		United Nations University(UNU)		✓				

Map of JSPS Overseas Offices and Counterpart Institutions



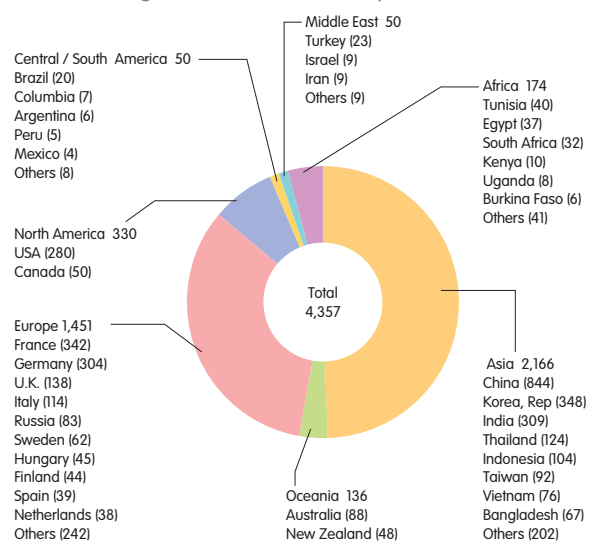


Researchers Exchanged from 2014-2016

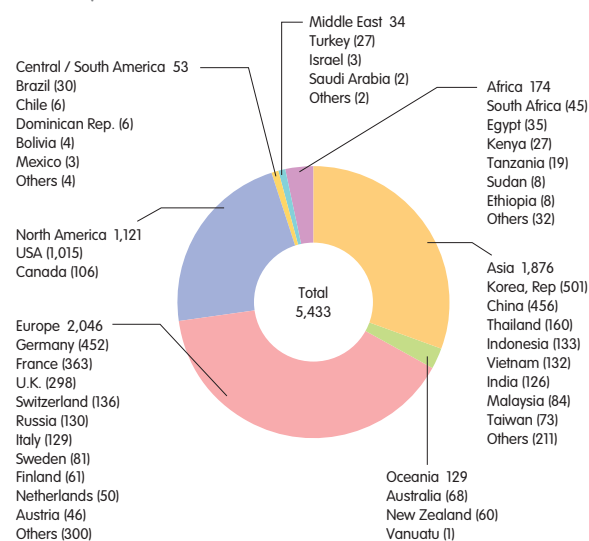
Program Region / Country			Foreign Researchers Invited to Japan												Total			Japanese Researchers Sent Abroad						Total			
			Invitational Fellowships						Postdoctoral Fellowships		Bilateral/ Multilateral and Other Programs							Overseas Research Fellowships			Bilateral/ Multilateral and Other Programs						
			Short-term			Long-term									2014	2015	2016										2014
Total			265	267	259	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	
Asia	India		13	4	11	8	2	7	96	100	96	191	171	195	308	277	309		1			156	120	126	156	121	126
	Indonesia				1				10	8	5	111	96	98	121	104	104					188	127	133	188	127	133
	Cambodia											5	9	5	5	9	5					18	27	33	18	27	33
	Singapore				1		1		2	2	2	29	40	46	31	43	49	1	1	1		112	96	63	113	97	64
	Sri Lanka		1	3	1	1			6	4	2			15	8	7	18					8	10	4	8	10	4
	Thailand		1		1	3	2		14	12	11	126	141	112	144	155	124	1	1			244	171	160	245	172	160
	Korea, Rep		5	5	7	10	10	7	42	42	54	380	271	280	437	328	348			1	416	369	500	416	369	501	
	China		26	23	37	10	8	14	183	172	159	311	299	634	530	502	844	2	2	3	387	374	453	389	376	456	
	Nepal								11	9	8	3	2	4	14	11	12					3			3		
	Pakistan				1	2	2		9	7	5	1	2	2	12	11	8					2	2		2	2	
	Bangladesh		4	6	4	6	6	8	43	41	38	12	8	17	65	61	67					11	8	13	11	8	13
	East Timor														1			1									
	Philippines		2						9	11	6	35	38	40	46	49	46					52	38	31	52	38	31
	Bhutan							1				1	2	5	1	2	6					7	5	4	7	5	4
	Brunei																					11			11		
	Vietnam					2		1	19	19	19	93	57	56	114	76	76			1	176	95	131	176	95	132	
	Malaysia		3	1	4	1			6	6	6	28	106	13	38	113	23	1	1			173	85	84	174	86	84
	Myanmar					1			2	3	3	5	8	7	8	11	10					24	28	18	24	28	18
	Mongolia		1			1		2	1	1	2	20	7	15	23	8	19					18	24	32	18	24	32
	Laos											9	5	5	9	5	5					10	5	12	10	5	12
	Taiwan		4	3	2	1	2	1	22	26	26	26	43	63	53	74	92	1	2	2	100	89	71	101	91	73	
Oceania	Australia		16	16	17		4	4	30	27	28	20	22	39	66	69	88	8	11	10		70	82	58	78	93	68
	New Zealand		6	8	2	3	1	2	7	6	6	12	25	38	28	40	48					34	41	60	34	41	60
	Vanuatu																							1			1
Europe	Iceland							1	1						1	1											
	Ireland				1	1		1		2	2			1	1	2	5					1	2	1	1	2	1
	Armenia														1			1				2	1		2	1	
	Italy		11	8	11	5	3	4	49	40	49	59	49	50	124	100	114	6	4	4	123	132	125	129	136	129	
	Ukraine		3	1					3	2	5			9	6	3	14					4	22	28	4	22	28
	Uzbekistan						1			1	2					2	2					12	6		12	6	
	U.K.		21	18	15	3	3	4	73	70	68	20	19	51	117	110	138	43	32	29	191	219	269	234	251	298	
	Estonia		1						3	4	3			1	4	4	4					5	9		5	9	
	Austria			1	4				4	4	2	76	17	8	80	22	14	6	5	8	47	35	38	53	40	46	
	Netherlands		3	3	2	1			5	5	7	30	17	29	39	25	38	6	11	10	104	56	40	110	67	50	
	Kazakhstan										1	6		1	6		2					5		2	5		2
	Cyprus								2		1				2		1							2			2
	Greece		1						6	8	7				7	8	7					8	4	3	8	4	3
	Kyrgyz																					1			1		
	Croatia		1		1				1	1	1				2	1	2					2	2	1	2	2	1
	Georgia														4			4					2	2		2	2
	Switzerland		1	2	4		1		13	15	9	7	20	24	21	38	37	21	19	21	125	135	115	146	154	136	
	Sweden		3	2	5				36	30	20	5	22	37	44	54	62	3	2	4	78	83	77	81	85	81	
	Spain		6	6	3	3	1		21	24	28	3	4	8	33	35	39	1	1	1	42	72	34	43	73	35	
	Slovakia						1		4	4	2	1			5	5	2					1	1	1	1	1	1
	Slovenia					1		1	8	4	6	17	20	14	26	24	21					21	21	19	21	21	19
	Serbia		3	1		1	1		4	1					8	3		1	1						1	1	
	Czech				1				10	7	5	17	11	15	27	18	21					32	22	27	32	22	27
	Denmark		1	1	1				5	5	3	6	1	10	12	7	14			1	15	13	18	15	13	19	
	Germany		26	32	25	3	4	3	92	86	79	108	180	197	229	302	304	37	34	36	430	388	416	467	422	452	
	Norway			4	4				1	1	1	1	1	5	2	6	10	1	1			17	16	15	18	17	15
	Hungary		2	1	1	3	1		15	16	14	16	24	30	36	42	45					31	48	42	31	48	42
	Finland		2	5	1			2	7	7	6	95	9	35	104	21	44	1	1	1	42	70	60	43	71	61	
	France		18	25	12	6	8	7	97	102	102	204	241	221	325	376	342	23	25	20	462	405	343	485	430	363	
	Bulgaria		2	1	2	1	2		5	4	5	2			10	7	7					1	3	1	1	3	1
	Belarus								1						1												
	Belgium		1	2	1	1			5	4	5	10	13	18	17	19	24	4	5	7	63	55	38	67	60	45	
	Poland		1	3	3		1	1	17	11	12	17	22	15	35	37	31					36	41	40	36	41	40
	Portugal		1	2	3		1		2	3	1	1	2	1	4	8	5					7	5	3	7	5	3
	Macedonia				1												1										
	Moldova								1	1	1				1	1	1										
Latvia						1									1							4	4		4	4	
Lithuania				1				2	1	1			8	2	1	10					3	10		3	10		
Romania		1						7	3	2	2			10	3	2					3	1		3	1		
Luxembourg								1						1													
North America	Russia		4	5	9	8	7	5	10	7	6	43	63	63	65	82	83	1	1	2	131	150	128	132	151	130	
	Canada		10	13	14	4	2	4	16	22	19	7	8	13	37	45	50	20	23	19	53	81	87	73	104	106	
	USA		49	53	31	9	15	11	138	132	132	83	67	106	279	267	280	268	247	226	807	862	789	1,075	1,109	1,015	
Central / South America	Argentina		3	4	1				1		2	3	3		1	6	6	6				2	7	3	2	7	3
	El Salvador								1						1												

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	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016		
Middle East	Afghanistan									1			3	3		3	4										
	United Arab Emirates												2	3		2	3				3	11	1	3	11	1	
	Yemen												1			1											
	Israel	3	3	3	1			1	1	1	5	6	5	10	10	9		2	2		2	2	1	2	4	3	
	Iran	1			1	1	1		9	9	8				11	10	9				2		1	2		1	
	Oman																				1			1			
	Qatar																					1			1		
	Saudi Arabia	1													1						7		2	7		2	
	Syria					1			1	1	1				1	2	1										
	Turkey			3			1		4	5	2	9	7	18	13	13	23				29	27	27	29	27	27	
	Jordan				1	1	1								1	1	1										
	Lebanon								1	1				2	1	3					1	1		1	1		
Palestine																				8	4		8	4			
Africa	Algeria							1	1	1	2	2	3	3	3	4				4			4				
	Uganda				1						1	3	8	2	3	8				7	11	7	7	11	7		
	Egypt	1		3	2	2	2	22	19	14	16	15	18	41	36	37				15	10	35	15	10	35		
	Ethiopia		1		1			3	3	2	1	2	1	5	6	3				13		8	13		8		
	Ghana										1		4	1		4				2	3	2	2	3	2		
	Cameroon						1	2	2	3			1	2	2	3	6			1	5	2	1	5	2		
	Gabon													1			1										
	Guinea													1			1					1		3		3	
	Kenya							3			17	16	10	20	16	10				1	57	47	26	57	47	27	
	Congo (Dem.)							1					1	3	1	1	3			1	57	47	26	57	47	27	
	Zambia										3	3	3	3	3	3				4	7	3	4	7	3		
	Sierra Leone												3			3											
	Zimbabwe							1	1		1				1	1	1				1			1			
	Swaziland																						2			2	
	Sudan													1			1				6	8		6	8		
	Senegal										2				2						2				2		
	Tanzania							1		1		3	2	2	4	2	3				14	13	19	14	13	19	
	Tunisia		1					5	1	4		61	36	5	63	40				18				18			
	Nigeria							1	8	5	2	2	3	1	10	8	4					1			1		
	Namibia																						1			1	
	Burkina Faso											2	8	6	2	8	6				9	6	5	9	6	5	
	Burundi, Rep											2			2												
	Botswana																				2		3	2		3	
	Madagascar												1			1					2	2	2	2	2	2	
	Malawi								1	1		1			1	1	1										
	Mali								1	1						1	1										
	South Africa			1		1						13	35	31	13	36	32				30	52	45	30	52	45	
	Mauritius	1										1			2												
	Morocco								2	2	1		1		2	3	1				1			1			
	Rwanda												1				1										

Foreign Researchers → Japan (FY2016)



Japanese Researchers → Abroad (FY2016)





COVER PHOTOS:

- ① Group photo at (S-1) International Field School in Rebun Island (Photo by Center for Ainu and Indigenous Studies Hokkaido University)
- ② Bilateral Collaboration (Open Partnership Joint Project) between Japan and Chile PI in Japanese side: Keiichi MAEDA, Kyoto University
- ③ Dr. Cheng-Hsiu TSAI from University of Otago (Taiwan) (National Museum of Nature and Science, June 2016)
- ④ Ms. Hisae Yoshida (DC, Nihon University)
- ⑤ Poster session at the 15th Japanese-American Frontiers of Science (JAFoS) Symposium (Irvine, December 2016)
- ⑥ Let's find out the disease in the blood. (August 2016, Niigata University of Pharmacy and Applied Life Sciences)
- ⑦ Discussion with the researchers from France at Tohoku University (Photo by Institute of Fluid Science, Tohoku University)

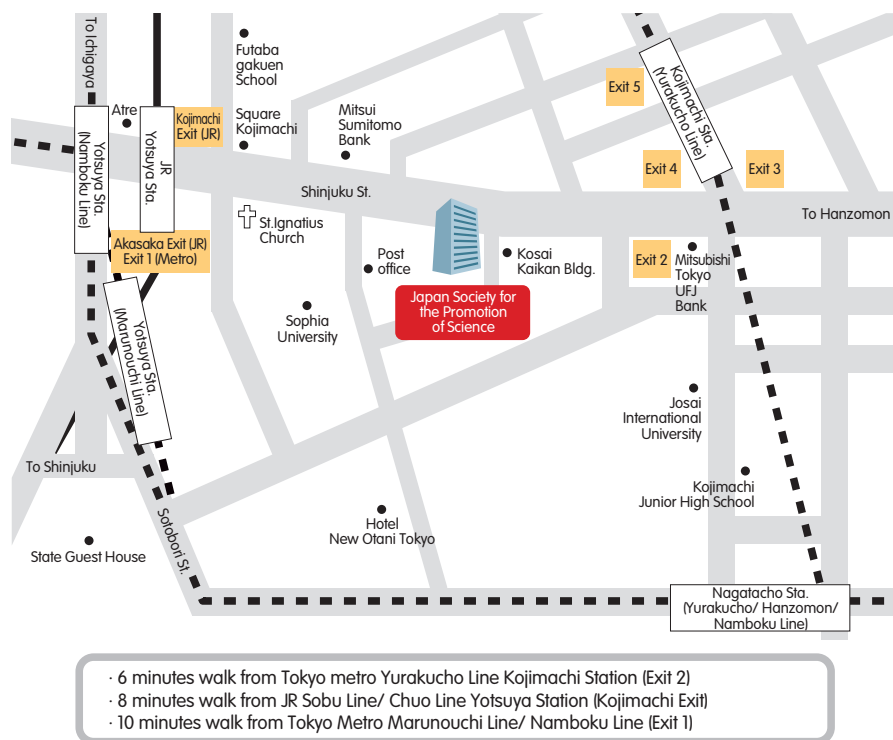
Crowing Rooster, Emblem of the Japan Society for the Promotion of Science



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.

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