

Office of Science and Innovation  
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## **Research Internship Opportunities and Research Grants in Japan**

Over the past 150 years, Sweden and Japan have developed close partnership in a wide range of areas, such as science, innovation, academia, business, trade, international and social affairs, culture, and creative industries. The close ties between Sweden and Japan are firmly built on people-to-people contacts and exchanges. This constant and dynamic flow of people and ideas brings our two countries together and makes them both better. Research institutes in Japan welcome highly qualified researchers from Sweden to conduct joint research activities with colleagues at the Japanese research institutes. A research internship experience in Japan is a great opportunity to study advanced research and technologies in inspiring environments.

In this document we have collected information about research internship opportunities and research grants in Japan. The programs include doctoral, postdoctoral and research fellowships. While the term of the research opportunities is set and the focus is on research projects, some short-term and summer programs are also included. Each program includes conditions for research grant, travel and other expenses.

Part I mainly consists of the internships at the National Research Institutes in Japan. Part II provides information for some Japanese research grants.

The information has been collected from open sources available as of November 2019.

## **Part I. Internship opportunities in Japan**

### **1. RIKEN**

RIKEN is Japan's largest comprehensive research institution renowned for its high-quality research in a diverse range of scientific disciplines. Founded in 1917 as a private research foundation in Tokyo, RIKEN has grown rapidly in size and scope and became a national institute in 2015. Today, RIKEN is encompassing a network of world-class research centers and institutes across Japan. RIKEN places special emphasis on providing educational and career opportunities for promising young students, postdoctoral researchers, and aspiring young scientists seeking to head their own labs. Below is the information on the internships.

#### **1.1 Special Postdoctoral Research Program (SPDR)**

Mathematical sciences (pure mathematics, applied mathematics, computer science, information science, artificial intelligence, etc.), Physics I (particle, nuclear, astrophysics, etc.), Physics II (condensed matter), Chemistry, biology (cell biology, developmental biology, plant biology, structural biology, microbiology, imaging, measuring, etc.), Medical science (brain science, psychology, immunology, oncology, genome science, etc.) and Engineering that relate to research being conducted at RIKEN. Deadline: Every year in April. <https://www.riken.jp/en/careers/programs/spdr/career2020/>

#### **1.2 International Program associate**

A non-Japanese doctoral candidate attending a Japanese or overseas graduate school participating in RIKEN's joint graduate school program.

[www.riken.jp/en/careers/programs/ipa/](http://www.riken.jp/en/careers/programs/ipa/)

#### **1.3 Junior Research Associate Program (JRA)**

Part-time positions for young researchers enrolled in Japanese university PhD programs for the purpose of giving the opportunity to carry out research alongside RIKEN scientists. Since 2011, RIKEN has been making special efforts to foster the development of basic research in medical fields, and recent graduates of medical and dental universities Fields: Mathematical

sciences, physics, chemistry, engineering, biology and medicine.

<https://www.riken.jp/en/careers/programs/jra/index.html>

#### 1.4 RIKEN AIP (Center for Advanced Intelligence Project)

Aims to achieve scientific breakthrough and to contribute to the welfare of society and humanity through developing innovative technologies, and conduct research on ethical, legal and social issues caused by the spread of AI technology and develop human resources. Launched in 2016. Fields: AI, Big data and Cyber securities.

<https://www.riken.jp/en/research/labs/aip/>

#### 1.5 International HPC Summer School program

The summer school will familiarize the best students in computational sciences with major state-of-the-art aspects of HPC for a variety of scientific disciplines, catalyze the formation of networks, provide advanced mentoring, facilitate international exchange and open up further career options.

<https://ss19.ihpcss.org/>

#### 1.6 Center for Brain Science Summer program

The Summer Program is designed to encourage and further the education of young neuroscientists and emerging researchers as they enter the international neuroscience community.

<https://cbs.riken.jp/en/summer/>

## 2. AIST

The National Institute of Advanced Industrial Science and Technology (AIST), one of the largest public research organizations in Japan, focuses on the creation and practical realization of technologies useful to Japanese industry and society, and on “bridging” the gap between innovative technological seeds and commercialization. For this, AIST is organized into five departments and two centers that bring together core technologies to exert its comprehensive strength.

AIST is one of Japan’s leading scientific research institute dedicated to pushing the boundaries of innovation, bringing 2300 research staff and 700 administrative staff together. The research addresses various issues in a wide range of research fields, covering from cutting-edge technologies to fundamental research in geological survey and metrology that underpins the

country's intellectual infrastructure. In pursuit of excellence in science and innovation, AIST is seeking to recruit research scientists from basic research to applied research.

[https://www.aist.go.jp/aist\\_e/humanres/index.html](https://www.aist.go.jp/aist_e/humanres/index.html)

### 2.1 AIRC (Artificial Intelligence Research Center)

AIRC aims to promote the implementation of AI in manufacturing, service, healthcare/caregiving, and security, and to strengthen Japan's competitiveness in the manufacturing and service sectors, so that Japan continues to be among the most advanced nations. AIRC also aims to help achieve a more abundant society by new means, through coordination between AI and people. The Artificial Intelligence Research Center welcomes visiting researchers in all disciplines, with the aim of serving as a core center for AI research in Japan.

<https://www.airc.aist.go.jp/en/recruit/>

### 2.2 Tsukuba Power Electronics Constellation (TPEC)

AIST established TPEC as industry-funded consortium to promote Power-Electronics Open Innovation using Tsukuba Innovation Area Nano-Technology Hub (TIA). The internship program aims to foster research and development specialists of comprehensive power electronics R&D from device to system application.

About TPEC in English [www.tia-nano.jp/tpec/en/index.html](http://www.tia-nano.jp/tpec/en/index.html)

Internship program in Japanese [www.tia-nano.jp/tpec/students/](http://www.tia-nano.jp/tpec/students/)

## 3. NIMS

National Institute for Material Science (NIMS) specializes in materials research in metals, organic or inorganic materials. Our world is made up of various "substances" and in these "materials" the basis of our everyday lives can be found. Materials fall into two major categories such as organic/polymeric materials and inorganic materials, the latter in turn being divided into metals and ceramics.

The objective of the internship program is to provide undergraduate and graduate students attending courses at domestic or overseas universities and graduate schools with technical experience in the field of materials and science in NIMS and to publicize NIMS itself and NIMS Joint/Cooperative Graduate Programs. The application for internship program 2020 will open

in January 2020.

<http://www.nims.go.jp/eng/hr-development/internship.html>

#### 4. NICT

National Institute of Information and Communications Technology (NICT) accepts competent young researchers and university students from overseas as internship trainee for the purpose of promoting the collaborative researches and establishing the international research networks with their affiliated research organizations and universities.

As a rule, the candidate must be recommended by his/her supervisor in the research organization or university. Internship Trainee Program:

<https://www.nict.go.jp/en/global/internship.html>

#### 5. NIBB

The National Institute for Basic Biology (NIBB) was founded in 1977 to promote and stimulate studies in the field of biology. As a center of excellence (COE), NIBB promotes biological sciences by conducting first-rate research on its own as well as in cooperation with other universities and research organizations. Research at NIBB covers a wide variety of biological fields, such as cell biology, developmental biology, neurobiology, evolutionary biology, environmental biology, and theoretical biology, and is conducted to elucidate general and fundamental mechanisms underlying various biological phenomena. In general, applications open in April-May every year.

<http://www.nibb.ac.jp/intern/>

#### 6. NII

National Institute of Information (NII) is Japan's only general academic research institution seeking to create future value in the new discipline of informatics. NII seeks to advance integrated research and development activities in information-related fields, including networking, software, and content. These activities range from theoretical and methodological work through applications. As an inter-university research institute, NII promotes the creation of a state-of-the-art academic-information infrastructure (the Cyber Science Infrastructure, or CSI) that is essential to research and

education within the broader academic community, with a focus on partnerships and other joint efforts with universities and research institutions throughout Japan, as well as industries and civilian organizations.

NII's internship program is focused on universities and institutes which we have signed a Memorandum of Understanding with listed universities. We circulate a call for applications to those universities once a year consisting of topics that have been proposed by NII researchers. Interns who are accepted are normally invited to work at NII for up to six months. International Internship Activities: <https://www.nii.ac.jp/en/about/international/>

## 7. JAXA

Japan Aerospace Exploration Agency (JAXA). The department of Space and Astronautical Science, School of Physical Science of the Graduate University for Advanced Studies (SOKENDAI) welcomes international internship students. This program aims to encourage undergraduate and graduate students living outside Japan to enter SOKENDAI and study space science and technology. Internship students can experience research as well as educational activities in the field they wish during their one-month stay in Sagamihara Campus, Institute of Space and Astronautical Science (ISAS).

### 7.1 Japan Aerospace Exploration Agency (JAXA).

JAXA International Top Young Fellowship (ITYF)

Established as a prestigious new fellowship program in 2009. The ITYF is designed to attract outstanding, highly motivated, early-career researchers in any of the space science fields covered by ISAS to work in Japan for 3 (extendable to 5 years. [www.isas.jaxa.jp/en/researchers/ityf/](http://www.isas.jaxa.jp/en/researchers/ityf/)

### 7.2 Science, School of Physical Science of the Graduate University for Advanced Studies (SOKENDAI).

Aims to encourage undergraduate and graduate students living outside Japan to enter SOKENDAI and study space science and technology. Internship students can experience research and educational activities in the field they wish during their one-month stay in Sagamihara Campus, Institute of Space and Astronautical Science (ISAS, Japan Aerospace Exploration Agency (JAXA).

<http://www.isas.jaxa.jp/sokendai/e/admissions/guidance/intern.html>

## 8. Spring 8

Budding Japan Synchrotron Radiation Research Institute (JASRI), Budding Researchers Support Program 2018A (April – August 2018), past information:

[www.spring8.or.jp/en/users/proposals/call\\_for/bud\\_res\\_sup\\_18a](http://www.spring8.or.jp/en/users/proposals/call_for/bud_res_sup_18a)

## 9. JAMASTEC

Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has the main objective to contribute to the advancement of academic research in addition to the improvement of marine science and technology by proceeding the fundamental research and development on marine, and the cooperative activities on the academic research related to the Ocean for the benefit of the peace and human welfare.

[www.jamstec.go.jp/e/work\\_with\\_us/jyrf/](http://www.jamstec.go.jp/e/work_with_us/jyrf/)

## 10. NIG-GS

National Institute of Genetics (NIG). NIG Global Scholar (NIG-GS) Selection, past information: the 5-year Ph.D. program with financial support. Post-doc positions will be available depend on the needs: Postdoc position (Systems Neuroscience lab. /Kubo lab.) [www.nig.ac.jp/nig/phd-program/admissions-top/admissions/nig-gs](http://www.nig.ac.jp/nig/phd-program/admissions-top/admissions/nig-gs)

## 11. NIPS

National Institute for Physiological Sciences (NIPS) (Department of Physiological Sciences, School of Life Science, The Graduate University for Advanced Studies (SOKENDAI)) invites foreign students who wish to stay at NIPS for approximately 2 weeks (internship) in FY2019

National Institute for Physiological Sciences (NIPS) is an inter-university research institute for research and education on human physiology, which investigates the mechanisms of human body function, carries out joint studies with domestic and foreign scientists, and provides education and training for graduate students and young scientists.

[https://www.nips.ac.jp/eng/release/2017/12/invitation\\_to\\_nips\\_nips\\_internship\\_2018\\_approximately\\_2\\_weeks.html](https://www.nips.ac.jp/eng/release/2017/12/invitation_to_nips_nips_internship_2018_approximately_2_weeks.html)

## 12. RIHN

The Research Institute for Humanity and Nature (RIHN) was established in April 2001 to conduct integrated research in the field of global environmental studies. In 2004, RIHN became one of the original members of the National Institutes for the Humanities (NIHU), an Inter-University Research Institute Corporation. RIHN has established two programs to enable overseas researchers to spend several months at the Institute, engaging in research and interacting with other RIHN researchers. RIHN Invited Scholar Program. Applications opens in July in general.

[www.chikyu.ac.jp/rihn\\_e/job/2020fellow.html](http://www.chikyu.ac.jp/rihn_e/job/2020fellow.html)

## 13. Vulcanus in Japan

Vulcanus in Japan started in 1997. The programme consists of industrial placements for EU COSME students. It starts in September and ends in August of the following year in order to accommodate the academic year citizen of an EU Member-State or a COSME partnering country. A student of engineering or science at an EU COSME university, enrolled – at the moment of application – in between the 4th official year of university studies (3 undergraduate + 1) and the penultimate year of PhD. This programme is financed by the EU-Japan Centre for Industrial Cooperation and the Japanese host company.

<https://www.eu-japan.eu/events/vulcanus-japan>

## Part II. Research Grants for study/research in Japan

### 1. The Swedish-Japan Foundation (SJF Scholarships)

Scholarships for studies, research as well as degree work and internships at university level in Japan. The scholarships are mainly intended for studies in technology, science, economics, law, medicine and commerce. Students and younger researchers from all universities and colleges in Sweden are eligible to apply for grants. In recent years, university students and ex-job seekers have been given priority for SJF Scholarships.

<https://swedenjapan.se/sjf-scholarships/>



## 2. JSPS

JSPS was established with an imperial endowment in 1932 as Japan's core funding supporting scientific advancement. Its mission includes fostering young researchers, promoting international scientific cooperation and awarding grants for research. JSPS has liaison office in 9 countries including the office in Stockholm.

JSPS carries out programs that provide overseas researchers who have an excellent record of research achievements with an opportunity to conduct collaborative research, discussions, and opinion exchanges with researchers in Japan. Fellows are given guidance, further opportunities, a network of alumni, and other support provided by JSPS during and after the research tenures in Japan. Inviting Excellent Researchers: JSPS carries out programs that provide overseas researchers who have an excellent record of research achievements with an opportunity to conduct collaborative research, discussions, and opinion exchanges with researchers in Japan. Fellows are given guidance, further opportunities, a network of alumni, and other support provided by JSPS during and after the research tenures in Japan.

[https://www.jsps.go.jp/english/e-inv\\_researchers/index.html](https://www.jsps.go.jp/english/e-inv_researchers/index.html)

Postdoctoral fellowship program for Short-term: The program provides PhD students or PhD researchers in the Europe and North America with opportunities to conduct collaborative research under the guidance of their hosts in universities and other Japanese institutions for a relatively short period of time. A person who has never engaged in research at universities etc. in Japan would be most preferable.

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

Summer Program: <https://www.jsps.go.jp/english/e-summer/>

## 3. Matsumae International foundation

The Matsumae International Foundation (MIF) is a non-governmental organization. Upon the concept of the founder of the MIF, "Towards A Greater Understanding of Japan and a Lasting World Peace", MIF has started the Research Fellowship Program in 1980. Applicants are free to select host institutions (university research laboratories, national research institutions or the corresponding facilities of private industry) for a period of from three to six months.

[www.mif-japan.org/fellowship/announcement/?hl=ene](http://www.mif-japan.org/fellowship/announcement/?hl=ene)