

## Hiroshima University Graduate School Research Fellowship Application Guideline

(Research Field - Quantum Physics, Materials, Sustainability Science; call for application to fill vacancies of the positions for FY2021)

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) promotes the "Project for Establishing University Fellowships for the Creation of Innovation in Science and Technology" with the aim of fostering and securing creative researchers who will assume essential roles for the future creation of science, technology and innovation in Japan.

Recently, MEXT selected Hiroshima University to establish Fellowships within the following four research categories: information/AI, quantum physics, materials, and sustainability science. As a result, Hiroshima University has established the Hiroshima University Graduate School Research Fellowship to train advanced research personnel who can lead the creation and utilization of new wisdom, create value that will tow the next generation, and bring science and technology innovation to society. The Fellowship will recruit and select Research Fellows from amongst 1st-year doctoral students of graduate schools and programs related to information/AI, quantum physics, materials, and sustainability science, and provide them with financial and career support so that they concentrate on their research. The program provides the Fellows with stipends and research expenses as financial support. Furthermore, **the tuition fees of the Research Fellows will be waived from FY 2022.**

The call for applications for support starting from April 2022, has been updated below.

### Number of Positions

Research Field	Major Subject (Program)	No. of Fellowships to be Awarded
Quantum Physics	Division of Advanced Science and Engineering (Mathematics Program / Physics Program / Quantum Matter Program)	A few
	Division of Advanced Science and Engineering (programs other than those listed above)	
Materials	Division of Advanced Science and Engineering (Basic Chemistry Program / Applied Chemistry Program / Chemical Engineering Program / Mechanical Engineering Program / Physics Program / Quantum Matter Program / Smart Innovation Program)	A few
	Division of Advanced Science and Engineering (programs other than those listed above)	
	Division of Integrated Sciences for Life (all programs)	
Sustainability Science	Division of Humanities and Social Sciences (International Economic Development Program)	A few
	Division of Advanced Science and Engineering (Transdisciplinary Science and Engineering Program)	
	Division of Integrated Sciences for Life (all programs)	
	Division of Integrated Health Sciences (Program of Biomedical Science)	
	Division of Humanities and Social Sciences (programs other than those listed above)	
	Division of Educational Sciences, Division of Advanced Science and Engineering (programs other than those listed above)	
	Division of Integrated Health Sciences (programs other than those listed above)	

\* The upper part of the "Major Subject (Program)" column for each research field shows the major subjects (programs) that are mainly targeted for the respective research fields, and the lower part shows the other major subjects (programs) which are also eligible to apply

### Eligibility

The following (1) to (5) are the descriptions of the eligibility requirements applicable to this Research Fellowship.

(1) Applicants must either be enrolled in a doctoral course in October 2020, April 2021 or October 2021 as 1st-year students at Hiroshima University to study a major subject/program from the above listed table.

(2) When the Fellow's latest annual income from January to December exceeds a certain amount (2.4 million yen or more per year). However, receiving a salary or working part-time in a job such as a TA or RA does not preclude the Fellow's eligibility requirements.

(3) Applicants must NOT be supported by the following fellowships or scholarships:

- Research Fellowships for Young Scientists from the Japan Society for the Promotion of Science (including those JSPS has unofficially selected).

- Japanese Government (MEXT) Scholarships for international students.
  - Any scholarship/s from the home countries of international students.
- (4) Applicants must NOT be supported by any fellowships or scholarships offered by local public agencies/private organizations where recipients are not allowed to receive their current scholarship at the same time as the Research Fellowship.
- (5) Applicants must NOT be supported by the Program for Developing and Supporting the Next-Generation of Innovative Researchers at Hiroshima University or the Hiroshima University Fellowship for Female Graduate Students in Science and Technology (including those Hiroshima University has unofficially selected).

### Application Methods

#### (1) Application via the official online form

Please access the official application form (Google Forms) from the following URL or QR code, enter the following items, and submit it. The applicant's Google account details and password authentication are required for access. (In case an applicant cannot submit the form, please see 3. (2) below to apply by e-mail.

Also, please note that applicants are not allowed to apply for multiple research fields.

<URL>

<https://forms.gle/JaoRpggNQQTUyxjz9>

<QR Code>



- \* You may also refer to this Fellowship's website to find the link for the official application form.

<Entry Items>

Research Field Desired for Review/Research title within your Doctoral Course/Full Name/Furigana for the Full Name/Student ID Number/Graduate school or Program for your Doctoral Course/Enrolment Date/Date of Birth/ E-mail Address/Phone Number/Academic Background/Name of the Worksite (if you are an employee)/Expected Income for this year/Status of JSPS Research Fellowships for Young Scientists (DC1 or DC2) Applications/Status of Application for Program for Developing and Supporting the Next-Generation of Innovative Researchers at Hiroshima University/Country or Region/Academic Supervisors' Information/ Have you ever consulted with your academic supervisor about your research plan?/Application Form or documents (specified format, converted from Word into PDF to be uploaded)

#### (2) Application via e-mail

Please attach and send the application documents below to the e-mail address detailed within "8. Contact Information". The subject of the e-mail should be "Graduate School Research Fellowship Application (filling vacancies): Research Field - ".

Application Documents:

- ① Application Form for this Fellowship (specified format, Excel)
- ② Application documents (specified format, converted from Word into PDF)

### Application Deadline

**February 18 (Fri), 2022, 12:00 p.m. (noon, Japan Standard Time)**

(The Fellowship office will not accept any submissions after the appropriate deadline has passed.)

### Selection Process and Notification of Results

The Screening Committee for each category of the Research Fellowship will conduct the First Screening (screening of the submitted application documents) and the Second Screening (screening via an interview). Applicants will proceed to the Second Screening only if they successfully pass the First Screening. The Committee will announce the date and time of the interview to each applicant individually.

Please note that depending on the results of the First Screening, the Second Screening may not be undertaken.

In addition, regarding the evaluation of each applicant, an emphasis is placed on the applicant's capability to "contribute to bring scientific and technological innovations to Japanese society in the future" as of the purpose of this program.

First Screening (planned): February to mid-March, 2022

Second Screening (planned): Late-March to early-April, 2022

Notification of Results (planned): Mid-April, 2022

All applicants will be notified of the screening results for the Fellowship by e-mail. Please note that individual inquiries regarding each decision will not be able to be responded to.

### **. Outline of Support after Selection**

Please refer to the attached "Outline of Support by Hiroshima University Graduate School Research Fellowship" for further details.

Please remember that applicants are highly recommended to apply for the Research Fellowships for Young Scientists from the Japan Society for the Promotion of Science as well, even if they are selected as a Research Fellow.

Also, for those selected by applying for a reopen call conducted to fill a vacancy of the position, the support will be provided until the last day of the support period for his/her predecessor. In that case, please note that the remaining payment period may be until March 2024 or September 2024.

### **. About each Research Field**

#### **Quantum Physics**

In the quantum physics research field, viewing quantum phenomena scale-seamlessly in the area from elementary particle physics, physics of solids such as electron spin-driven superconductivity, strongly correlated electrons, quantum magnetism, topological material as well as macroscopic photonics such as quantum optics, photonic quantum information and nano-photonics, to astrophysics such as a black hole and dark matter, we welcome the applicants who aim to open

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- (3) When the research progress or the fulfillment of the Research Fellow Obligations is insufficient.
- (4) When it is found that after selection, a Research Fellow does not meet the eligibility requirements.
- (5) When the Research Fellow requests to terminate the Fellowship.
- (6) When the Research Fellow takes a leave of absence from the University. However, in the case of childbirth, childcare, illness, etc., the payments will be suspended during the period of leave and resume with the return of the Research Fellow. (The timing and conditions of the suspension and subsequent resumption of the payments will be decided according to the individual's situation).
- (7) When the Research Fellow withdraws from Hiroshima University or is removed from the University.
- (8) When the President of the University decides that there is a valid reason to terminate the Fellowship.

#### **4. Reimbursement of Excess Payments of Stipends and Research Expenses**

In the case where a Research Fellowship is terminated before the end of the formal award period, a Research Fellow must reimburse any excess amount of the stipends and research expenses deemed excessive at the period of termination.

#### **5. Others**

- (1) As long as it does not interfere with your research activities, working part-time or receiving a salary in a job such as a TA or RA does not void your eligibility for application.
- (2) The names of all the selected Research Fellows will be announced on the Hiroshima University website.
- (3) The personal information of the applicants stated in the application documents and any necessary personal information of the applicants provided by the graduate school to which they belong to will be used only for purposes such as the selection of candidates, preparation for acceptance, and education/research guidance, etc.