Project for Developing and Supporting the Next-Generation Al Researchers at Hiroshima University

Introduction time:15 minuts 広島大学 大学院生支援プロジェクト Hiroshima University Postgraduate Advancement Project

The support content for Next-Generation AI Fellows (financial support)

financial support

- ✓ Stipend 250,000 JPY/month
- √ Research funds 900,000 JPY/year

(total annual support: 3.9 million JPY)

Exceeds Next-Generation Fellows' support.

Concurrent applications
 with Next-Generation Fellows
 are allowed.

Additional support

HU SPRING provides various forms of support similar to the Next Generation Fellows, such as study abroad, joint research funding, English language education, poster sessions, speech contests, etc.

Eligibility and Number of Next-Generation AI Fellows

- The total support quota for all grades at Hiroshima University is <u>21</u>.
- After two rounds of recruitment and selection in FY2024, the total adoption rate was 56.3%.
- The program is open to all graduate schools of Hiroshima University. Applications from not only advanced science and engineering but also humanities and social sciences, and medical fields can apply if their research involves AI. Please refer to the list on page 6 for specific specialized fields.

Graduate school	Course	Major Subject	Program	The approximate number of Fellows to be selected
All graduate schools	Doctoral Courses Or 4-Year PhD Programs	All Major Subjects	All Programs	Select from Students enrolling in Apr.2025 or in Oct.2025 Approximately 5 people

Ideal candidate profile for Next-Generation AI Fellows

- The aim of this program is <u>not merely to use conventional AI</u> technology for research but to cultivate individuals who can contribute to realization of Society5.0 by innovatively solving social problems through AI development and original proposals of AI as a foundation technology for Society5.0.
- Next-Generation AI Fellows to be adopted need to belong to laboratory of AI Department in AIDI Center*. This program assigns two supervisors: one from the applicant's doctoral course laboratory and one from the AI Department of the AIDI Center. Therefore, the content of research for applicant has to match the research fields of the AI Department faculty.

List of Al Department Faculty and Their Research Fields

The information is current as of December 6, 2024. For the latest updates, please refer to the AIDI Center website.

B.I	D ::: T:::		
Name	Position Title	Fields	
KOJI EGUCHI	Professor	Text Analysis/Information Retrieval/Network Analysis/Statistical Machine Learning	
YUSUKE HAYASHI	Professor	Information systems to support knowledge sharing and utilization	
TSUKASA HIRASHIMA	Professor	Intelligent information systems that facilitate human learning	
YASUHIKO MORIMOTO	Professor	Data Mining/Social Computing/Database Marketing	
MASAAKI NAGAHARA	Professor	Mathematical optimization, machine learning, optimal control, and their practical application to smart society	
ANDRADE SILVA	Associate Professor	Bayesian Statistics/ Statistical Machine Learning	
DANIEL GEORG			
SAYAKA KAMEI	Associate Professor	Distributed Algorithm Theory/Information Recommendation System	
TERUAKI KITASUKA	Associate Professor	Mobile Computing/Ubiquitous Computing	
TORU HIGAKI	Associate Professor	Medical Image Processing/Medical Image Visualization	
YOICHI OGATA	Associate Professor	Numerical Fluid Dynamics/Machine Learning Applications	
YUKINORI KITADAI	Lecturer	Algebraic geometry/particularly Frobenius mapping studies of vector bundles	
HIROAKI AIZAWA	Assistant Professor	Computer Vision/Machine Learning	
WATARU HUKUMOTO	Assistant Professor	Diagnostic Radiology/Postmortem Imaging	
AKIRA FURUI	Associate Professor	Biological Signal Analysis/ Statistical Machine Learning/ Human Machine Interface	
YANLEI GU	Associate Professor	Automated Driving / Intelligent Transportation Systems / Deep Learning / Computer Vision / Data Mining	
YU YI	Associate Professor	Multimodal learning and generative modeling and their application to multimedia and music	
TAKIO KURITA	Visiting Professor	Statistical Pattern Recognition / Machine Learning / Neural Networks	

Obligations of Next-Generation AI Fellows

- ①Develop a yearly research plan for each academic year and concentrate on research activities based on the plan.
- ②Report the progress of research activities to the University regularly.
- **③Cooperate in various surveys. In particular, it is essential to cooperate with follow-up surveys on the career for 10 years after completion of the program.**
- **<u>AParticipate in programs</u>** offered by the University <u>related to improving research</u> capabilities.
- ⑤Based upon the "広島大学における研究活動に係る研究倫理教育に関する細則" (only available in Japanese),make sure to undertake necessary research ethics education.
- **©**Participate in the initiatives, activities, etc. which are carried out by the "HU SPRING" or are informed on the "HIRAKU-PF" for career development of the Next-Generation Al Fellows. In particular, to participate actively in the "HU SPRING 3QUESTIONS" and the "HIRAKU 3MT Competition".
- **7**Register the account for the Cooperative Education through Research Internships is essential.
- **8**Proceed the research with maintaining the balance between the applicant's expertise and the development and application of Al <u>under the guidance of two supervisors.</u>
- **9**Participate in the presentation held by AIDI Center to confirm the progress of research.
- **10**Conference presentations and submitting papers on Al research during the period of support for Next-Generation Al Fellows.

※Unique Initiatives of Next-Generation AI Fellows

Project for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University



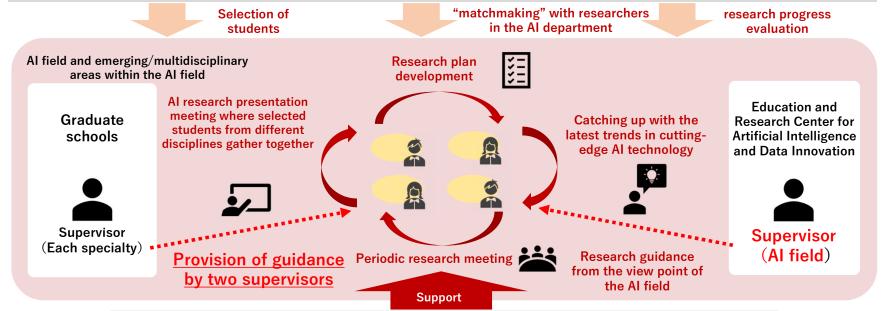


Collaborative organizational for developing Next-Generation AI Researchers to help realize a desirable future society proposed by the Japanese government (Society 5.0)

Next-Generation AI Researcher Screening Committee

- Selection of Next-Generation AI Researcher (screening and interview)
- Development of AI researchers("matchmaking" with researchers in the AI department, research progress evaluation, etc.)

External experts (Al-related companies. those in academia, etc.)



Program for Developing and Supporting the Next-Generation of Innovative Researchers at Hiroshima University (HU SPRING)



Provision of Young Researchers 'Portfolio

research funds

Provision of grant-in-aid for research encouragement and



Provision of opportunities for fellows to interact each other



HIRAKU 3MT Competition



Provision of programs to support research study abroad



Support for Research Collaborations among Fellows



Language education

Programs for improvement in transferable skills

Programs for improvement in research abilities

Provision of opportunities to develop a global mindset

Career development support

Eligibility Metails have been simplified. Please check the Application Guideline before applying. **

- Applicants must enrolled in a doctoral or four-year doctoral course at Hiroshima University at the start of support, excluding those who have exceeded the standard study period or are on leave of absence.
- Applicants must NOT receive an income that exceeds 2.4 million JPY for the period from January to December of the year in which the support starts (excluding part-time job).
- Applicants must NOT receive support under the <u>JSPS Research Fellowships for Young Scientists (DC)</u>, the Japanese Government Scholarship Program, or any scholarships from their home countries.

JSPS Research Fellowships for Young Scientists (DC) cannot be funded concurrently with this program; however, concurrent applications are allowed.

Applicants must NOT scheduled to receive scholarships from local governments, private organizations, or other sources that not considered co-subsidized with other scholarships.

You cannot apply for this program, even if you are in the application process (awaiting results) for scholarships that are not considered co-subsidized. ** This is because withdrawing or declining such scholarships may harm the relationship between the foundation and the university, affecting future opportunities for other students.

※Please check the Application Guideline again once recruitment opens.

Next-Generation AI Application Documents Preparation Notes (1)

Application documents: Program for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University

Applicant's Full Name (

Research Plan The proposal document should be prepared with consideration that it will be reviewed from diverse viewpoints by a review
committee consisting of reviewers with different backgrounds.

(1) Positioning of this research

Please describe the positioning of this research to be conducted as a Next-Generation AI Fellows, including the trends related in the field, background of any issues, and the circumstances that led to the conception of the present Research Plan.

*Descriptions should be written within 1 page. Changes/additions to the form are not allowed. Please do not erase the instructions (the boxed article).

Research Plan (continued) The proposal document should be prepared with consideration that it will be reviewed from diverse viewpoints by a review committee consisting of reviewers with different backgrounds.

(2) Purpose and contents of research

- 1) Please state the purpose, method, and contents of the research you will conduct as a Next-Generation AI Fellow.
- 2) Specifically describe what type of plan it is, and what will be clarified and to what extent will it be pursued.
- State the characteristics, novelty, and originality of the Research Plan. (Please include comparisons with previous researches, the expected impact of the research upon completion, and future prospects.)
- 4) Within the research activities of your research unit/group, please clarify the parts that you will be responsible for.
- If you have plans to engage in research in a different research institution (including an overseas research institution) during the period of the Research Plan, please describe it.
- *There is no word limit for each item, but descriptions should be given within 2 pages. Changes/additions to the form are not allowed. Please do not erase the instructions (the boxed article).

3. Protection of Human Rights and Compliance with Laws and Regulations

Use this column to describe the actions and measures you will implement if your [2. Research Plan] includes research activities that require actions based on guidelines, laws and regulations, etc. (including guidelines, laws and regulations, etc. of the countries/regions in which joint international research may be conducted), including research that requires obtaining consent and/or cooperation of counterparts, research that requires special attention in the handling of personal information, and research that requires actions related to bioethics and/or biosafety and research that requires security export control. Provide specific information on the status of the approval process, as this will apply to surveys, research, experiments, and other activities that would require approval by an internal or external intelligence committee, ethics board, or other review boards, for example, questionnaire/interview/behavioral surveys involving personal information (including personal histories and videos), surveys, etc. of domestic and foreign cultural heritage sites, use of donated specimens, research of invasive nature, human genome analysis, genetic recombination experiments, animal testing and research on sensitive technologies. Indicate "not applicable" if this does not apply to your research plan.

*There is no word limit for each item, but descriptions should be given within 1 pages. Changes/additions to the form are not allowed. Please do not erase the instructions (the boxed article).

4. Self-Analysis of Research Performance

In addition to the Research Plan described in this application form, please describe specific information on (1) "Strengths as a researcher" and (2) "Necessary elements for further development as a researcher" in the relevant field, based on the research experiences in which you have been involved in.

*There is no word limit for each item, but descriptions should be given within 2 pages. Changes/additions to the form are not allowed. Please do not erase the instructions (the boxed article).

It can be prepared based on the JSPS Research Fellowships for Young Scientists (DC) application form.

Required Information

- Research Plan
- Protection of Human Rights and Compliance with Laws and Regulations
- Self-Analysis of Research Performance

Next-Generation AI Application Documents Preparation Notes (2)

(Differences from the JSPS Research Fellowships for Young Scientists (DC) application form)

5. Intended image of a researcher in the future

The "Program for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University" aims to make the doctoral course students leap forward by support and foster so that they can contribute to realization of Society 5.0 with innovation to solve social problems through development and utilization of AI. In light of this purpose, please describe (1) "the intended image of a researcher in the future," (2) "the positioning of the research activities you will conduct during the period of a Next-Generation AI fellow toward the intended image of the researcher in the future", and (3) "The career plan which follows completion of the doctoral course and includes the vision how to contribute to science/technology and innovation for future Japan based on the image of ideal researcher currently intending."

*There is no word limit for each item, but descriptions should be given within 1 page. Change addition of the form is not allowed. Please do not erase the instructions (the boxed article).

- (3) The career plan which follows completion of the doctoral course and includes the vision how to contribute to science/technology and innovation for future Japan based on the image of ideal researcher currently intending
- ✓ A description regarding "How to contribute to realization of Society5.0 by innovatively solving social problems through AI development and original proposals of AI" is required.
- Consider how and where you would specifically like to apply your experiences and strengths in the future, based on an understanding of Japan's current situation.
- X Focusing merely on honing your skills as a researcher and enhancing your international perspective.
- **X** Become a researcher in an overseas laboratory and publish high-impact papers.
- X Merely becoming a researcher or engineer at a university or company in Japan.

Next-Generation AI Application Documents Preparation Notes (3)

- The application documents have specified formats with requirements for font size and page count.
- The application must be confirmed by your current supervisor or, for pre-admission students, by your prospective supervisor.
- Using non-specified formats
- Exceeding the designated page limit
- Missing supervisor's "Recommendation and Consent Form"
- Failing to submit or complete the checklist
- →Such cases may be disqualified from review.

Recommendation and Consent Form

- Recommend a following doctoral course student for the Next-Generation AI Fellow due to below reasons.
 An excellent student who is highly expected outstanding performance at the Next-Generation's AI field
 - with contribution to realization of innovative future society (SocietyS.0).
 A promising candidate who can meet the objectives of Program for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University.
- Agree with proceeding the system of two academic supervisors with another expertise researcher of Al
 division in Education and Research Center for Artificial Intelligence and Data Innovation at Hiroshima
 University with understanding the objectives of Program for Developing and Supporting the Next-Generation
 All Researchers at Hiroshima University as an academic supervisor for the recommended student.

Recommended Student ID	
Recommended Student Name	
[Optional] Name of the AIDI Center AI Department researcher whom you would like to request guidance from	(38) When submitting your application, please delete this line and the following italicized explanation text. Please fill in the name of the departmental researcher at the AIDI Center whom you would like to have supervise you. (If you didn't fill any name, the AIDI Center will assign an appropriate researcher for you if you are adopted.)

Comments of academic supervisor	(When submitting your application, please delete this and the following italicized explanation text) As for this recommendation, please comment expectations about how the recommended student contributes to realization of Society-S.0 with Innovation to solve social problems through development and utilization of AI.
Affiliation of academic supervisor	
Name of academic supervisor	(signature)

Next-Generation AI Application Documents Preparation Notes (4)

- The submission of a video presentation on your own research is required.
- *The volume of video needs up to 10 minutes and has to include following items.
 - 1. Abstract of research (the content of research so far, and research plan in doctoral course)
 - 2. How to contribute to realization of Society5.0 with innovation to solve social problems through development of AI and original proposals to utilize AI.
- *The video content should be composed in an easy-to-understand manner, such as using PowerPoint, etc.
- *The video should be filmed in a way that the applicant can be seen and heard, with an explanation in either Japanese or English. (Please do not use mechanical sound.)
- → The content of the explanation should be easy to understand even for non-specialized review committee members.

HP · Inquiries

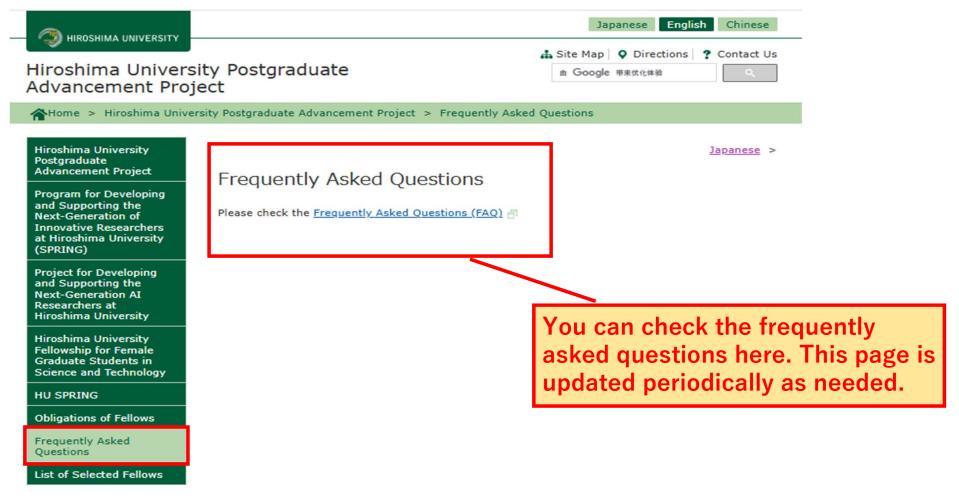
<u>Hiroshima University HP ΓPostgraduate Advancement Project</u> :

https://www.hiroshima-u.ac.jp/en/fellowship



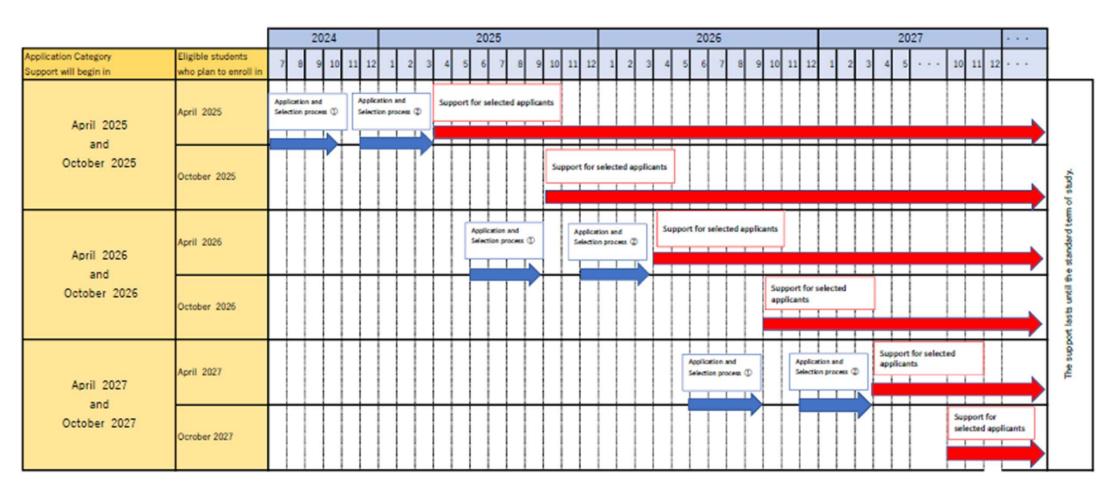
Inquiry details	Inquiry contact	Contact information
Regarding the recruitment,selection and obligationsRegarding the stipends	Global Career Design Center	fellowship@office.hiroshima-u.ac.jp
· Regarding the support contents	HU SPRING Office (Department of Research and Academia-Government-Community Collaboration Support)	hu-spring@office.hiroshima-u.ac.jp
Regarding the budget management of research funds	Department of Research and Academia-Government-Community Collaboration Support	gakujutu-project@office.hiroshima-u.ac.jp

Please use this as a reference



Hiroshima University HP>Hiroshima University Postgraduate Advancement Project Project for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University>Frequently Asked Questions (FAQ)

Annual application schedule

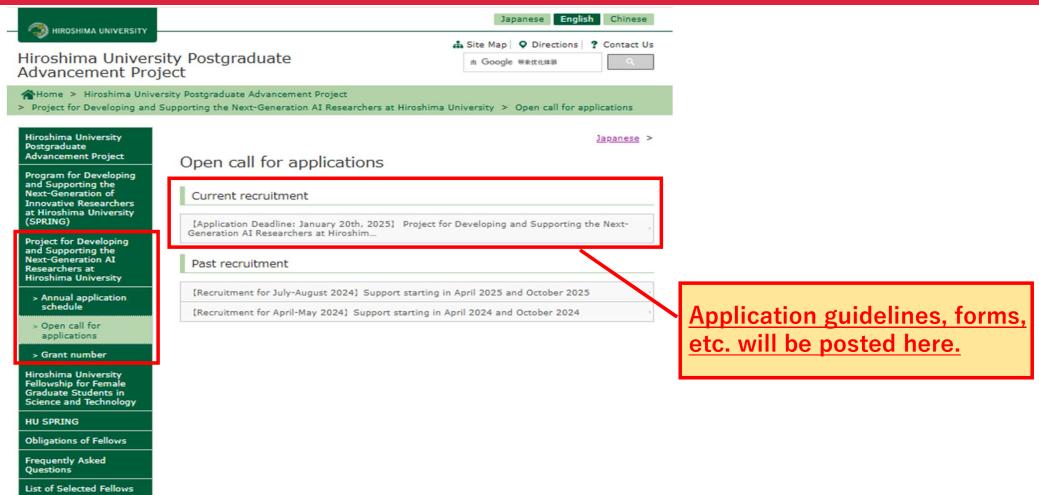


**This table is for reference only and may change. Please check the public application information for detailed timelines.

Hiroshima University HP> Hiroshima University Postgraduate Advancement Project Project for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University > Annual application schedule

https://www.hiroshima-u.ac.jp/en/fellowship/nextgeneration-ai/schedule

Open call for applications



Hiroshima University HP>Hiroshima University Postgraduate Advancement Project Project for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University> Open call for applications

https://www.hiroshima-u.ac.jp/en/fellowship/nextgeneration-ai/application