AY2023
University Fellowship Founding Project
for Innovation Creation in Science and Technology

Nambu-Einstein Fellowship Program

Fellowship Program to Foster
International Ph.D.-Holding Researchers
through Materials Innovations

Fellowship Program to Foster Architects
Who Lead a Super-Smart Society by
Co-Creating Innovating Solutions to "X-Care" Social Issues

Fellowship Student Application Guidelines

【2023 selection (spring)】

Revised on 18th January

Osaka Metropolitan University
Doctoral Human Resource Development Support Office
December 2022

*Contents assume that the budget for academic year 2023 will be met; however, since the budget for the project has not yet been determined, the contents related to support are subject to change.

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Schedule for application and selection
　Application period
　　Microsoft Forms submission: Fri. January 20, 2023– Tue. January 31, 2023, 12:00 p.m.
　　Submission of essay and face photo: Fri. January 20, 2023– Tue. January 31, 2023, 3:00 p.m.
　Interview (online): One of the following days: Tue. February 14, 2023 through Thu. March 2, 2023
　Announcement of Acceptance: Fri. March 17, 2023

I. Nambu-Einstein Fellowship

1. Our Ideal Image of Researcher

Our target with this project is to foster high-level researchers who can cooperate with others to create completely novel values "paradigm shifts"—unbound by conventional concepts—based on a foundation of comprehensive viewpoints and free thinking. To this end, these researchers will be educated in a wide range of scientific and technological disciplines, while simultaneously being exposed to a diverse range of perspectives and value systems. The fellowship will be provided to eligible doctoral-course students. In addition to supporting their research activities, we will also provide programs to improve their research capabilities and support their career paths.

2. Obligations of Eligible Students

Fellowship students shall have the following obligations:

- Participation in (every year) and presentation (once during this course) at the fellowship plenary seminar
- Participation in seminar camp or cross-disciplinary research proposal meetings (every year) and research presentations (once during this course)
- Participation in international conferences and lectures (once during this course, conferences held in Japan is acceptable)
- Obtaining credits from specific graduate courses (Advanced Technology and Science in Chemical industry, or Advanced Lecture on Global Management)
- Participation in (every year) and presentation (once during this course) at exchange meetings with private companies
- Individual meetings with mentors (twice a year)
- Application to the Japan Society for the Promotion of Science DC (every year)
- Evaluation of achievement and progress reports on research goals (twice a year)

3. Program Features

(1) Programs to improve research capabilities and support career paths

- Provision of lectures to support the improvement of research capabilities
- Support for research study at domestic and overseas research institutions
- Improvement of research capabilities and provision of a research environment through interdisciplinary and cross-disciplinary collaboration with researchers within the university
- Introduction of multiple supervisory scheme through a mentor system

(2) Programs to secure career paths

- Conducting long-term internships
- Development scheme to assistant professor
- Conducting Interactive Matching event with related companies
- Support for research study at domestic and overseas research institutions

II Fellowship Program to Foster International Ph.D.-Holding Researchers through Materials Innovations

1. Our Ideal Image of Researcher

This program aims to foster doctoral researchers through "Materials Innovations" based on nanoscience in the material research field, who have a fundamental scientific and technical background, advanced subject-matter expertise, superior creativity, and a global outlook as researchers and lead future science and technologies.

2. Obligations of Eligible Students

The fellowship student shall have the following obligations:

- Obtaining a certain number of credits from common education courses at graduate school.
- Participation in a long-term internship
- Portfolio management for required skill items
- Evaluation of achievement and progress reports on research goals (twice a year)

3. Program Features

(1) Programs to improve research capabilities and support career paths

- Providing lectures to support the improvement of research capabilities
- Overseas associate supervisor system
- Providing programs to improve research capabilities and a research environment through disciplinary and cross-disciplinary collaboration with researchers within the university
- Introduction of multiple supervisor scheme through a mentor system

(2) Programs to secure career paths

- Conducting long-term internships
- Development scheme to assistant professor
- Conducting Interactive Matching event with related companies

III Fellowship Program to Foster Architects who Lead a Super-Smart Society with Co-Creating Innovative Solutions to "X-Care" Social Issues

1. Our Ideal Image of Researcher

In this program, we define "X-Care problem-solving" as those that require discerning and understanding the health and soundness of people, products, society, and culture, especially in human healthcare, product care, and social system care, as well as the prevention of unhealthy conditions alongside a rapid recovery to a healthy state. The goal of this program is to foster "co-creative X-Care problem-solving architects," who can design systems to achieve X-Care problem solving process through co-creation activities with various stakeholders. The architects are required to have (1) "sense of discernment" to decide what information to use to determine the health status of the care target, (2) expertise to essentially decipher the health of the care target from the data, (3) data analytics expertise to process and analyze a vast amount of data on the care target using appropriate algorithms in a timely manner. In addition, they are required to have the ability to design a sustainable ecosystem with many members in order to resolve X-Care issues. Based on these elements as a background, this program will foster human resources with the ability to solve social issues through an interdisciplinary approach, focusing on informatics and collaborating with the natural sciences, humanities, and social sciences.

2. Obligations of Eligible Students

The fellowship student shall have the following obligations:
- Obtaining a certain number of credits from common education courses at graduate school
- Participation in a long-term internship
- Portfolio management for required skill items
- Evaluation of achievement and progress reports on research goals (twice a year)

3. Program Features

(1) Programs to improve research capabilities and support career paths
- Providing opportunities for co-creative joint research
- Providing lectures that contribute to solve X-Care issues
- Providing lectures to support the improvement of research capabilities

(2) Programs to secure career paths
- Conducting long-term internships
- Introduction of multiple supervisor scheme through a mentor system
- Conducting Interactive Matching event with related companies

IV Common Items to All Programs

4. Application Requirements

Applicants must have excellent research abilities and meet the following requirements to ensure successful execution of this project.

Graduate Schools and Majors of **Osaka Metropolitan University** listed in Table 1-1 **(Three-Year Doctoral Course).**

(1) Persons who are going to enroll in April 2023 to the graduate schools and majors listed in Table 1-1.

(2) Applicants who apply for admission in April 2023 to the graduate schools and majors listed in Table 1-1.

(3) Applicants who plan to apply for admission in October 2023 to the graduate schools and majors listed in Table 1-1.

(4) Persons who were admitted in April 2022 or October 2022 to the graduate schools and majors listed in Table 1-1, who are enrolled as of April 1, 2023 and not on a leave of absence.

Graduate Schools and Majors of **Osaka Prefecture University** listed in Table 1-2 and of **Osaka City University** listed in Table1-3 **(Three-Year Doctoral Course).**

(5) Persons who were admitted in April 2021 or October 2021 to the graduate schools and majors listed in Table 1-2 and Table 1-3, who are enrolled as of April 1, 2023 and not on a leave of absence.

Graduate Schools and Majors of **Osaka Metropolitan University** listed in Table 2-1 **(Four-Year Doctoral Course / Graduate School of Medicine and Graduate School of Veterinary Science)**

(6) Persons who are going to enroll in April 2023 to the graduate schools and majors listed in Table 2-1.

(7) Applicants who apply for admission in April 2023 to the graduate schools and majors listed in Table 2-1.

(8) Applicants who plan to apply for admission in October 2023 to the graduate schools and majors listed in Table 2-1.

(9) Persons who were admitted in April 2022 or October 2022 to the graduate schools and majors listed in Table 2-1, who are enrolled as of April 1, 2023 and not on a leave of absence.

Graduate Schools and Majors of **Osaka Prefecture University and** of **Osaka City University** listed in Table 2-2 **(Four-Year Doctoral Course / Graduate School of Medicine and Department of Veterinary Science)**

(10) Persons who were admitted in April 2021 or October 2021 to the graduate schools and majors listed in Table 2-2, who are enrolled as of April 1, 2023 and not on a leave of absence.

(11) Persons who were admitted in April 2020 or October 2020 to the graduate schools and majors listed in Table 2-2, who are enrolled as of April 1, 2023 and not on a leave of absence.

＊ Even if you meet these requirements above, you may not be eligible in case you have taken a leave of absence after enrollment of the doctoral course. Please check individually with the Doctoral Human Resource Development Support Office（See "13. Contact for Inquiries."）if it is the case.

However, the following are excluded:
- Students who have been selected as a Research Fellowship for Young Scientists (DC) of the Japan Society for the Promotion of Science (JSPS)
- International students supported by the Japanese Government (Japanese Ministry of Education, Culture, Sports, Science, and Technology [MEXT]) Scholarship Program
- International students who receive scholarships and/or other support from their home country
- Working students whose affiliated company has a welfare program that provides a sufficient amount of money as living expenses (2.4 million yen / year as a reference).
- Those who are receiving support from the University's Program for Developing Human Resource with Rhizome-based Research Approach (Support for Pioneering Research Initiated by the Next Generation) or this project. However, this does not apply to those who have submitted a notification of withdrawal of support by the time of application for this program (the present support will have to be terminated by March 31, 2023). If an application is submitted without submitting a notice of withdrawal, the application will be invalidated.
- Those who have been selected through the University's Program for Developing Human Resource with Rhizome-based Research Approach (Support for Pioneering Research Initiated by the Next Generation) or this project, and are scheduled to start receiving support from April 1, 2023. However, this does not apply to those who have submitted a letter of withdrawal of the right to receive support by the time of application for this program. If an application is submitted without submitting a letter of withdrawal, the application will be invalidated.

Precautions
・Other financial supports from such as scholarships of JASSO and various foundations
Since this program is targeting to "create an environment where students can concentrate on their research" and JASSO scholarships has the different nature, you may basically receive the support from this program and either of loan-type or benefit-type scholarships at the same time. However, JASSO may not allow you to receive scholarships at the same time. Please make sure to check with JASSO as well.
Regarding scholarships from various foundations, those foundations may not allow you to receive scholarships together with this project. Please make sure to check with the foundations.

・Program for Developing Human Resource with Rhizome-based Research Approach (Support for Pioneering Research Initiated by the Next Generation) and Second/Third Choice

Applicants may NOT apply for the Program for Developing Human Resource with Rhizome-based Research Approach (Support for Pioneering Research Initiated by the Next Generation), or they will be requested to withdraw one of the applications prior to the selection process.

If you are not selected for your first choice of the program, you may further apply for second and/or third choice(s) in a different field of fellowship programs or for the Program for the Developing Human Resources with Rhizome-based Research Approach (Support for Pioneering Research Initiated by the Next Generation program). Nevertheless, such further application is considered only if the field and/or program of your second and third choices have not been filled. Please note that the second and third choice cannot be the same field/program. If you apply for second or third choice, please check the eligibility requirements for the relevant project or field.

Please apply for the fellowship programs upon understanding the purpose and contents by watching explainer videos for each program and the founding project "University Fellowship Founding Project for Innovation Creation in Science and Technology" on the following website: https://www.omu.ac.jp/fellowship/

Table 1-1   *See also "5. Number of students to be accepted (capacity)" on Page 11.

Osaka Metropolitan University Graduate School/Department/Major		Quantum Science	Materials	Super-Smart Society
Sustainable System Sciences	Sustainable System Sciences	×	○	○
Literature and Human Sciences	Philosophy and History	×	×	○
	Human Behavioral Sciences	×	×	○
	Language and Culture	×	×	○
	Cultural Management	×	×	○
Law	Law and Political Science	×	×	○
Economics	Economics	×	×	○
Business	Global Business	×	×	○
Urban Management	Urban Management	×	×	○
Informatics	Core Informatics	○	○	○
	Interdisciplinary	×	○	○
Science	Mathematics	○	○	○
	Physics	○	○	○
	Chemistry	○	○	○
	Biology	○	○	○
	Geosciences	○	○	○
	Biological Chemistry	○	○	○
Engineering	Aerospace and Marine-System Engineering	×	○	○
	Mechanical Engineering	×	○	○
	Urban Engineering	×	○	○
	Physics and Electronics	○	○	○
	Electrical and Electronic Engineering	×	○	○
	Science and Engineering for Materials, Chemistry, and Biology	○	○	○
	Quantum and Radiation Engineering	○	○	○
Agriculture	Applied Biological Chemistry	×	○	○
	Agricultural Biology	×	○	○
	Environmental Sciences	×	○	○
Rehabilitation Science	Rehabilitation Science	×	○	○
Nursing	Nursing	×	×	○
Human Life and Ecology	Human Life and Ecology	×	○	○

Table 1-2   *See also "5. Number of students to be accepted (capacity)" on Page 11

Osaka Prefecture University (OPU) Graduate School/Department/Major		Quantum Science	Materials	Super-Smart Society
Engineering	Mechanical Engineering	×	○	N/A
	Aerospace and Marine-System Engineering	×	○	
	Electronics, Mathematics, and Physics	○	○	
	Electrical Engineering and Information Science/ Electrical Engineering Area	×	○	
	Electrical Engineering and Information Science/ Information Science Area	○	○	
	Materials Science and Engineering	○	○	
	Quantum and Radiation Engineering	○	○	
Life and Environmental Sciences	Applied Life Science	×	○	
	Environmental Sciences and Technology	×	○	
Science	Mathematical Sciences	○	○	
	Physical Science (Geoscience)	○	○	
	Physical Science (Non-Geoscience)	○	○	
	Chemistry	○	○	
	Biological Science	○	○	
Humanities and Sustainable System Sciences	Humanities and Sustainable System Sciences	×	○	
Comprehensive Rehabilitation	Comprehensive Rehabilitation	×	○	

Common Items

Osaka City University Graduate School/Department/Major		Quantum Science	Materials	Super-Smart Society
Science	Mathematics and Physics/ Mathematics	○	○	N/A
	Mathematics and Physics/ Physics	○	○	
	Molecular Materials Science	○	○	
	Biology and Geosciences/ Biology	○	○	
	Biology and Geosciences/ Geosciences	○	○	
Engineering	Mechanical and Physical Engineering	×	○	
	Physical Electronics and Informatics/ Informatics	○	○	
	Physical Electronics and Informatics/ Physical Electronics	○	○	
	Applied Chemistry and Bioengineering	○	○	
	Urban Engineering	×	○	
Human Life and Ecology	Human Life and Ecology	×	○	

Osaka Metropolitan University Graduate School/Department		Quantum Science	Materials	Super-Smart Society
Veterinary Science	Veterinary Science	×	○	○
Medicine	Basic Medical Science	×	○	○
	Clinical Medical Science	×	○	○

Graduate School/Department		Quantum Science	Materials	Super-Smart Society	
				enrolled in 2021	enrolled in 2020
OPU/ Life and Environmental Sciences	Veterinary Science	×	○	○	N/A
OCU/ Medicine	Basic Medical Science	×	○	○	
	Clinical Medical Science	×	○	○	

5. Number of students to be accepted (capacity)

Name of program	Number of students to be accepted *Below numbers correspond to ones listed in "4. Application Requirements".										
	(1)	(2)	(3)	(6)	(7)	(8)	(9)	(4)	(10)	(5)	(11)
Quantum Science	5 students			-				2students	-	1 student	-
Materials	3 students							6 students		3 students	
Super-Smart Society	4students							1 student		-	

6. Application Documents

(1) Where to apply:

Please visit FS Application for 2023 selection(spring) and submit the required information.
Submission deadline: 12:00 p.m. on Tue. January 31, 2023

Also send the files listed in "(2) Files" below to the following address
by email: gr-knky-fellow-na@omu.ac.jp
Submission deadline: 3:00 p.m. on Tue. January 31, 2023
*Notification of receipt will NOT be sent.

Please do not forget to encrypt the files, and send the password(s) in a separate email.
Your application will be received by completing the submission of both Microsoft Forms and required files. Doctoral Human Resource Development Support Office will contact you only to inquire about your entry on Forms or request for re-submission of the files.

*The application on Microsoft Forms sets many sections for entry and it will take time for you to complete filling in. Please give yourself a sufficient time to proceed with the application. In case you submit the application forms for multiple times, only the latest submission shall be valid and received.

(2) Files

1. Essay using Form 1 (attached)
    Please   name the file "Student ID Number_Name.pdf" (in .pdf format only).
2. Face Photo (above shoulders) (jpg, bmp, png format).
    Please   name the file "Student ID Number_name.jpg" (or bmp, png).

If you belong to another university at the time of application, you do not need to enter your

student ID number.

Form 1 can be downloaded from https://www.omu.ac.jp/fellowship/

Notes for special caution

(1) Incomplete application documents will not be accepted.

(2) Documents submitted at the time of application will not be returned.

(3) No revisions of documents are allowed after the application procedure has been completed.

(4) If it is confirmed that the information entered in the application form, or the information contained in the submitted documents, is not true, the applicant's eligibility to participate in this project may be revoked.

(5) Personal information provided by applicants will be used only for the purpose of selection.

(6) No application fee is required for the selection process.

7. Selection Method

(1) Examination contents

Subjects for examination	Scoring	Outline etc.
Short essay	100 points	To be prepared in accordance with Form 1.
Interview	100 points	This will be conducted online. You will have 7 minutes at the beginning to present your essay, followed by a 13 minutes question-and-answer session. In your presentation, you may utilize Microsoft Powerpoint or other presentation tools.

(2) Evaluation method: Evaluation (scoring) will be performed in accordance with the results of the essay and interview. Scoring will be based on the Rubric Evaluation Table.

8. Date and Place of Interview (online)

After the application documents are received, the date and time will be designated sometime between Tue. February 14, 2023 through Thur. March 2, 2023.

If, during the abovementioned time periods, you are unable to attend an interview for legitimate reasons such as the university entrance examination or presentations at academic conferences, please specify your unavailability for the interview with the reason in the designated column of the application form (you may be asked to submit documentation to verify the reason later). However, this does not guarantee that the interview will be held at a time other than the specified time slot.

The interview will take approximately 25 minutes.

We will inform you of the date and time of the interview and the URL for the Zoom meeting by Friday, February 10. If you do not hear from us by 4:30 p.m. on Friday, February 10, please contact us by 5:00 p.m. on the same day at the e-mail address listed in "13. Contact for Inquiries."

Notes:

(1) In the event that an interview cannot be conducted as scheduled due to a natural disaster, etc., an "emergency notice" will be sent out via e-mail, so please check.

(2) Emergency contact information on the day of the interview is the same as in "13. Contact for Inquiries."

9. Schedule

(1) Application Period

Microsoft Forms submission: Friday, January 20, 2023– Tuesday, January 31, 2023, 12:00 p.m..

Submission of essay and face photo: Friday, January 20, 2023– Tuesday, January 31, 2023, 3:00 p.m.

(2) Notification of Interview Date and time

Notification to be sent by Friday, February 10 to the e-mail address provided on the application form

(3) Interview

Tuesday, February 14, 2023 through Thursday, March 2, 2023 between 9:00 a.m. and 5:05 p.m. The interview will take approximately 25 minutes.

(4) Announcement of Acceptance

Friday, March 17, 2023: Successful applicants will be notified at the e-mail address that you provided on your application form.

We will not respond to any inquiries regarding acceptance or rejection by phone.

10. Program Start Date and Eligibility

(1), (2), (4), (5), (6), (7) ,(9) ,(10) and (11)listed in "4. Application Requirements"

1. Program start date: Saturday, April 1, 2023

2. Eligibility: Applicants who have passed this selection process and are admitted to and enrolled in the major listed in "4. Application Requirements" as of April 1, 2023.

(3) and (8) listed in "4. Application Requirements"

1. Program start date: Sunday, October 1, 2023

2. Eligibility: Applicants who have passed this selection process and are admitted to and enrolled in the major listed in "4. Application Requirements" as of October 1, 2023.

Note：

Supports may be terminated if you take a leave of absence during the support period depending on the reasons.

11. Fellowship Payment

Students who are eligible for this program can apply for a fellowship (2.3 million yen per year [2 million yen is for research dedication support fee and 300,000yen is for research funding]).

*The fellowship will be paid and allocated after the program start date.

This research dedication support fee is treated as miscellaneous income at tax treatment.

12. Notes

The purpose of this program is to support research after admission to the doctoral courses (doctoral programs). Even if you are selected for this program before admission, you will not be exempted from the graduate school entrance examination. Acceptance or rejection of this project has nothing to do with the graduate school entrance examination. In addition, this program does not provide reduction, exemption, or assistance for entrance and tuition fees. (For information on reduction, /exemption programs, or subsidies for entrance and tuition fees and other financial aid programs offered by the university, please contact the respective department in charge of the program.)

13. Contact for Inquiries

Please inquire at the Doctoral Human Resource Development Support Office.

Please note that to avoid any discrepancies in the information shared by the Support Offices, inquiries will be accepted only by email. We thank you in advance for your understanding.

Doctoral Human Resource Development Support Office
Email: gr-knky-fellow-na@omu.ac.jp

<div align="right">**(Form 1)**</div>

<div align="center">University Fellowship Founding Project for Innovation Creation in Science and Technology

Nambu-Einstein Fellowship Program

Fellowship Program to Foster International Ph.D. Holding Researchers through Materials Innovations

Fellowship Program to Foster Architects who Lead a Super-Smart Society with Co-Creating Innovative Solutions to "X-Care" Social Issues

Essay Form</div>

		Examinee's number	(Do not fill in)
Name		Date of Birth YYYY/MM/DD	
Affiliation	Graduate School of _____ Major in _____	Academic Supervisor	
Subject of research			
Research Keywords (about 5)			

This is the end of the information to be included on this page.
Please start your essay from next page in accordance with the instructions below.

- There is no fixed format or template for this essay assignment.
- Please make it intelligible for people outside the field.
- The essay must not be more than <u>2 pages</u> long in <u>A4 paper size</u> when written in Japanese (approximately 45 characters a line and 40 lines in a page), including images, tables and graphs. <u>Maximum word count is 2000 words when written in English.</u> When describing your achievements in the essay, please write "Applicant" to refer to yourself. Do not include your name.
- Please include following 3 points in your essay.

Understand the ideal researcher characteristics of the fellowship program (Quantum, Materials, and Super-Smart Society) that you are applying for:

(1) Describe the purpose of your research (academic background, specific objectives, features, original points, etc.) and your plan (specific research content and methods to achieve the research goal, etc.). Carefully describe your research in such a way that it can be understood by researchers outside your field of expertise. Describe how your research will lead to the resolution of problems with respect to natural science, science and technology, people, society, and culture, as well as the position of your research. Applicants who applied for JSPS Research Fellowship for Young Scientist in FY2023 may attach the application form as supplementary document.

(2) Describe what types of transferable skills* you intend to acquire in this program and why and how you intend to acquire them.

Transferable skills in this program: skills that can be widely transferred and applied, such as originality, free thinking, a challenging spirit, the ability to identify research needs, research management skills, interactive skills, and leadership skills that attract people, which are necessary for innovative human resources.

(3) Describe your thoughts on your career path after completing the doctoral course and how you would like to be active and contribute to society.