

Support for Pioneering Research Initiated by the Next Generation

# **“Program of Developing Human Resource for Rhizome-based Research”**

## **Program Introduction**

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To all readers of this document

Thank you for your interest in this program “Support for Pioneering Research Initiated by the Next Generation” (Program of Developing Human Resource for Rhizome-based Research).

This program is one of the support programs for doctoral students conducted by Osaka Metropolitan University.

Please review this material carefully and understand the program Philosophy and Objectives before you apply.

The excellent doctoral students qualified by the project manager will be able to **devote themselves to their own liberal, challenging, and interdisciplinary research** with the portability of changing their affiliation, along with the **support funds and career development contents (cultivation of internationality, cultivation of interdisciplinarity, career development, acquisition of transferable skills, internship, etc.)**.

次世代研究者挑戦的研究プログラムは、  
博士後期課程学生による挑戦的・融合的な研究を支援し、  
優秀な博士人材が様々なキャリアで活躍できるように  
研究力向上や研究者能力開発を促す事業です。

This program is Support for Pioneering Research Initiated by the Next Generation (SPRING) provided by Japan Science and Technology Agency (JST) and, as shown on this slide, is a program to support challenging and interdisciplinary research by doctoral students and to encourage the development of research skills and capabilities as researchers so that talented doctoral personnel will be able to work in a variety of careers.

The excellent doctoral students qualified by the project manager will be able to devote themselves to their own liberal, challenging, and interdisciplinary research with the portability of changing their affiliation, along with the support funds and career development contents (cultivation of internationality, cultivation of interdisciplinarity, career development, acquisition of transferable skills, internship, etc.).

## Background of the “Program of Developing Human Resource for Rhizome-based Research”

- “Developmental Transmission of Traditions”  
from Osaka City Univ. and Osaka Pref. Univ.
- City facing a variety of challenges: OSAKA
  - Contribute to global society through solutions to local and social issues
    - Development and utilization of technology innovations based on human behavior patterns
    - Cultivate and rediscover the city's social and cultural resources
    - Enhance the city's new attractiveness (Branding)
  - The need for breakthrough power to invite Japanese society, with its strong sense of stagnation, to a new stage
- Osaka Metropolitan University (OMU)
  - **Aiming to contribute to society in a way that only a public university rooted in the community can**



Osaka Metropolitan University (OMU) has applied for this SPRING and been adopted.

Osaka City University and Osaka Prefecture University, the predecessors of Osaka Metropolitan University, have been contributing to global society through solutions to local and social issues for the city OSAKA which is facing a variety of challenges. OMU has been working on a great variety of activities such as development and utilization of technology innovations based on human behavior patterns, cultivate and rediscover the city's social and cultural resources and enhance the city's new attractiveness.

I am sure you feel the need for breakthrough power to lead Japanese society, with its strong sense of stagnation, to a new stage.

OMU is a developmental transmission of the traditions of these predecessor universities and aiming to contribute to society in a way that only a public university rooted in the community can.

## Philosophy and Objectives of the “Program of Developing Human Resource for Rhizome-based Research”

### Fundamental Philosophy: **“To create a people is to nurture people”**

The goal of the program is to create new knowledge and cultivate complex knowledge, and to address all research issues that will lead global society through the solutions of regional and social issues.

- Research contributing to the resolution of social issues
- Research creating a leading-edge complex research field
- Research contributing to the creation of a future society

Any research encompassed by these integrated issues is eligible.

[Vision to aim for]

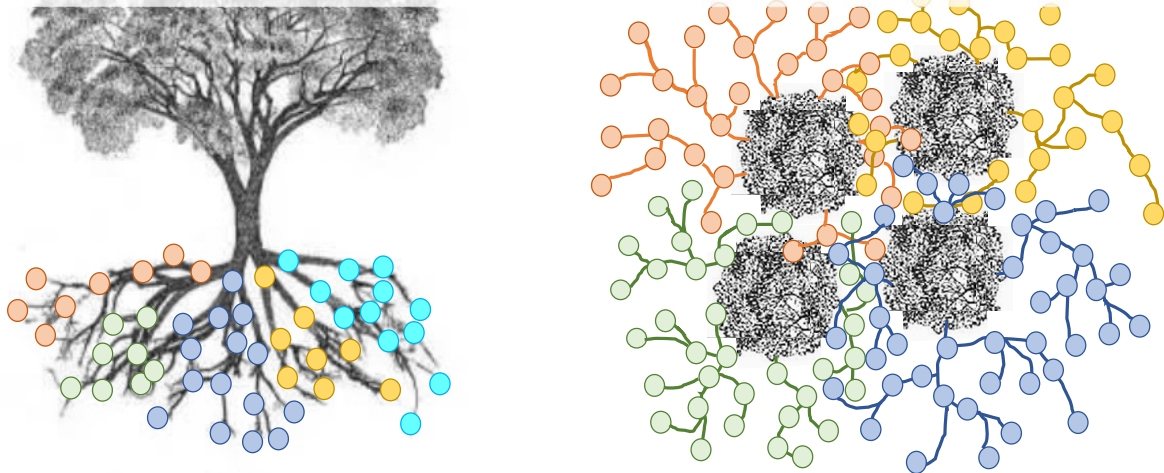
Nurturing **students who have the strong will and research vision to contribute to the creation of leading research and a future society by utilizing their multidisciplinary expertise**

The most important thing for the university to contribute to the local community is to "create people and nurture people" based on the program's fundamental philosophy and we support doctoral students who create new knowledge and cultivate multidisciplinary knowledge, and to address all research issues that will lead global society through the solutions of regional and social issues. We support those doctoral students whose researches are contributing to the resolution of social issues, creating a leading-edge complex research field, contributing to the creation of a future society as well as any research encompassed by these issues.

That is, this “Program of Developing Human Resource for Rhizome-based Research” nurtures students who have the strong will and research vision to contribute to the creation of leading research and a future society by utilizing their multidisciplinary expertise.

## Rhizome

A concept that expresses the way in which dissimilar things that are not related to each other are connected not in a hierarchical relationship, but in a transversal, horizontal relationship.



At this point, We would like to explain the term “RHIZOME” which represents the philosophy of this program.

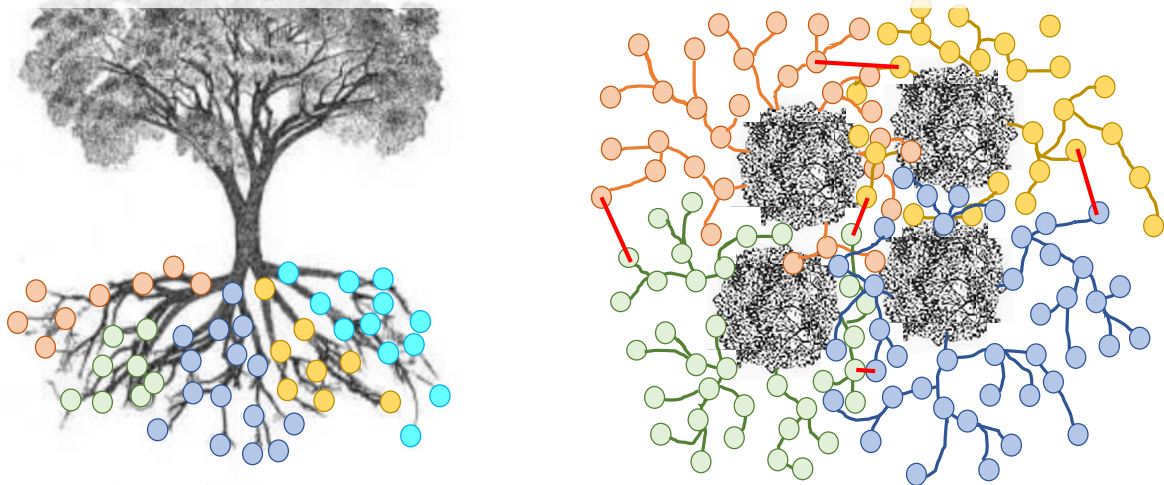
Rhizome is a Latin word meaning underground stem or rootstock. The plants and trees we can see on ground have roots growing vertically and horizontally beneath them, and it is the firmness of these vertically and horizontally extending roots that allows the plants and trees to stand. The roots must be divided into several sections, sometimes horizontally, sometimes extending deep into the ground.

We believe that mastering specialized knowledge is equivalent to gaining a certain level of knowledge at the tip of this finely divided root. Sometimes it is a major finding in the discipline and from there, the roots differentiate again and the search for new knowledge begins, doesn't it?

## Rhizome

**“There is no point or position in the rhizome as found in structures, trees, roots, etc. There are only lines.”**

Gilles Deleuze, Pierre-Félix Guattari: “A Thousand Plateaus (Mille Plateaux)”



大阪公立大学  
Osaka Metropolitan University

Osaka Metropolitan University is one of the best universities in Japan which consists of one undergraduate college, eleven undergraduate schools and fifteen graduate schools.

The situation, so to speak, looks like large trees crowded together. Underneath these college, schools and graduate schools, a variety of specialized knowledge is rooted in every direction.

This “Program of Developing Human Resource for Rhizome-based Research” is designed to help students broaden their perspectives beyond their research expertise to other areas of expertise that they have not been exposed to or have not paid much attention to.

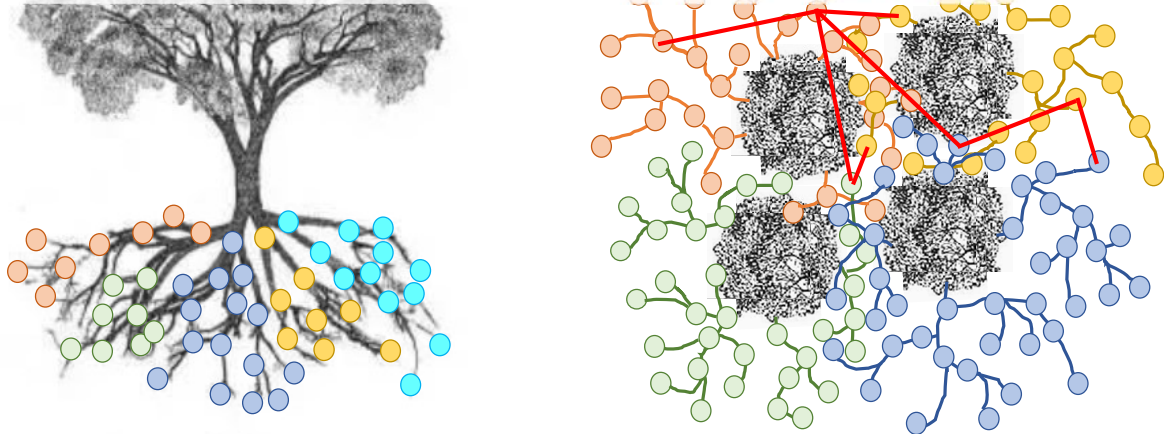
We hope that the students will make use of this program for the development of their own research expertise and the social implementation of their own expertise. We also hope that they will make use of this knowledge in designing their own future careers.

It may be a small collaboration at first.

## Rhizome

**“To be rhizomatic means to produce stems and fibers that look like roots, or better yet, to produce stems and fibers that invade the trunk and become connected to those roots, and which do not decline to put them to strange and new uses!”**

Gilles Deleuze, Pierre-Félix Guattari: “A Thousand Plateaus (Mille Plateaux)”



However, it may someday lead to a major collaboration.

You may also end up sharing expertise with different disciplines that you could not have anticipated at the outset. The multidisciplinary knowledge thus generated may play a leading role in creating new academic fields and new ways of thinking and technology.

We would like to support those students who are willing to do so in order to increase that possibility as much as they can.

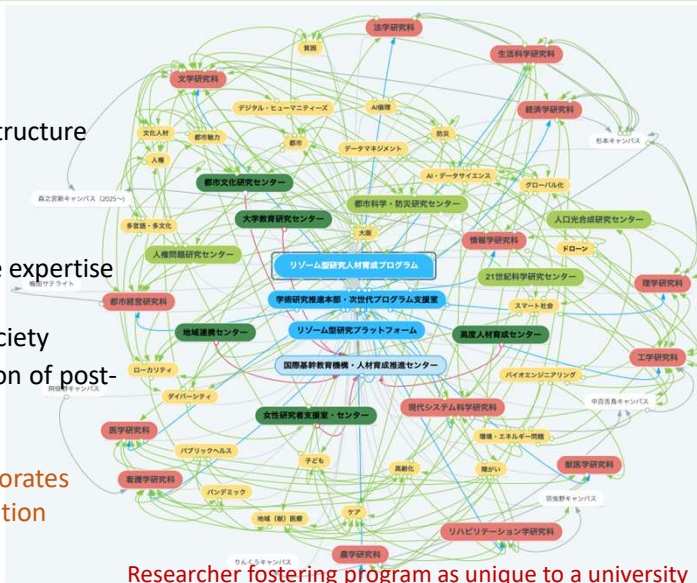
# Vision of Fostering "Rhizome-type" Doctoral Students

## Researcher to foster

- **Deepen "Intelligence", create diverse "Intelligence"**
  - Hierarchical to Rhizome-type organizational structure and thinking process
- **Aggressive acquisition of "Complex Intelligence" (Complex Knowledge)**
  - Promoting the organic combination of diverse expertise and resources
  - More assured return of research results to society
  - Academic and research activities in anticipation of post-degree activities

### ⇒ Foster Rhizome-type Researcher

Foster researchers who can plan research that incorporates the expertise of the associate graduate school in addition to research projects that make use of the expertise cultivated in your main graduate school.



Researcher fostering program as unique to a university

Let us summarize at this point.

I am sure that all of you will work energetically to deepen your expertise in your respective fields in the doctoral course.

In this program, of course, we provide support for the deepening of such expertise or specialized intelligence (knowledge). But we also hope that you will be actively interested in diverse intelligence or complex knowledge (multidisciplinary knowledge) in order to make use of your expertise for the benefit of society and to enrich your own careers after obtaining your degree, and that you will be motivated to acquire complex knowledge by being exposed to such knowledge while you are in doctoral course.

We hope you will take full advantage of the diverse human resources at Osaka Metropolitan University.



## Sophistication we expect to students

### Sophistication we expect to students

- To understand the position of one's own research in society
- Strong intellectual curiosity and desire and diverse perspectives
- Willingness to cultivate an international perspective
- Future contribution to society

### Wide range of issue settings

- Research that contributes to solving social issues
- Research that creates cutting-edge research areas
- Research that contributes to the creation of future society

The program covers all research areas including above and will support those who are actively engaged in deepening and organic combination of expertise without being bound by the framework of the existing graduate school.

Sophistication we expect to the program students is:

1. To understand the position of one's own research in society,
2. Strong intellectual curiosity and desire and diverse perspectives,
3. Willingness to cultivate an international perspective,
4. Future contribution to society.

We also expect students a wide range of issue settings such as:

1. Research that contributes to solving social issues,
2. Research that creates cutting-edge research areas,
3. Research that contributes to the creation of future society.

The program covers all research areas including above and will support those students who are actively engaged in deepening and organic combination of expertise without being bound by the framework of the existing graduate school.

# Application Requirements

- Persons who plan to apply for doctoral course (3-year or 4-year doctoral course) at the Graduate School of Osaka Metropolitan University for admission in April 2023
- Persons who plan to apply or have applied for doctoral course (3-year or 4-year doctoral course) at the Graduate School of Osaka Metropolitan University for admission in October 2022

However, the following students (as of support starting date) 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)
- Foreign 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 who have been eligible to receive a stable and enough amount of money as living expenses (2.4 million yen / year as a reference) from the company to which they belong.
- Students who are receiving support from the University Fellowship Founding Project for Innovation Creation in Science and Technology.

The understanding of your academic supervisor is essential for the promotion of this program.

**Before submitting your application, please obtain the consent of your prospective supervisor.**

In addition, please make sure that you fully understand the objectives of this program by reviewing this program introduction materials beforehand before applying.

Application Requirements are, as shown on this slide,

1. Persons who plan to apply for doctoral course at the Graduate School of Osaka Metropolitan University for admission in April 2023,
2. Persons who plan to apply or have applied for doctoral course at the Graduate School of Osaka Metropolitan University for admission in October 2022.

The understanding of your academic supervisor is essential for the promotion of this program.

Before submitting your application, please obtain the consent of your prospective supervisor.

Please make sure that you fully understand the objectives of this program by reviewing this material carefully.

## Number of Students to be Accepted

- Students enrolling in April 2023: About 14 students
- Students enrolling in October 2022: About 2 students

(1) The maximum period of support is 3 years (4 years in the case of 4-year doctoral course (medical and veterinary doctoral courses) since your admission to doctoral course. If you are enrolled in doctoral course for more than 3 years (or 4 years in 4-year doctoral course), including years before this support starts, you will not be eligible to receive supports after the end of standard years of study. If you take a leave of absence during the support period, supports may be terminated depending on the reasons.

(2) Support starts in April 2023 (October 2022 for students planning to enroll in October 2022).

(3) Support starts for those students who have passed this selection process and will be enrolled in the graduate school listed in "3. Application Requirements" and not in leave of absence as of the support starting date.

Number of Students to be Accepted is,  
About 14 students enrolling in April 2023, and  
about 2 Students enrolling in October 2022.

The maximum period of support is standard term of study at doctoral course,  
which is 3 years in case of 3 year-doctoral course and 4 years in the case of 4-year  
doctoral course since your enrollment.

Support starts at April 2023 for the students enrolling in April 2023, and October  
2022 for students enrolling in October 2022.

## Selection Method and Schedule

Judged by the content of the essay (100 points) and an interview based on the essay (100 points)

- June 15<sup>th</sup> Application Guidelines and Program Introduction Materials available
- July 4<sup>th</sup> ~ 11<sup>th</sup> Application period
- July 22<sup>nd</sup> Notification of interview date and time
- July 24<sup>th</sup> ~ Aug. 5<sup>th</sup> Interview (one day in this period)
- September 2<sup>nd</sup> Announcement of Acceptance

### • Evaluation Perspectives

- Degree of understanding of the relationship between one's research and the solution of current social problems, the creation of leading research fields, and the creation of a future society
- Degree of awareness of the complex knowledge considered necessary for one's own research and willingness to acquire it.
- Degree of ability to explain one's research to non-specialists
- Degree of understanding of the importance of transferable skills and willingness to acquire them.
- Degree of deliberation regarding post-completion utilization and contribution to society with an awareness of career paths.

Selection is judged by your essay and an interview based on it.

Please see this slide for the detailed schedule.

Interview will be conducted between July 24 and August 5.

Please make sure that your schedule is available during this period.

The five evaluation perspectives are as follows:

1. Degree of understanding of the relationship between one's research and the solution of current social problems, the creation of leading research fields, and the creation of a future society,
2. Degree of awareness of the complex knowledge considered necessary for one's own research and willingness to acquire it,
3. Degree of ability to explain one's research to non-specialists,
4. Degree of understanding of the importance of transferable skills and willingness to acquire them,
5. Degree of deliberation regarding post-completion utilization and contribution to society with an awareness of career paths.

# Evaluation method

Section	Evaluation Items	Out of evaluation or unevaluable	Greatly below standard	Below standard	Standard	Above standard	Greatly above standard
		score: 0	score: 1	score: 2	score: 3	score: 4	score: 5
Rhizome Program Field-specific	(1) Degree of understanding of the relationship between one's research and the solution of current social problems, the creation of leading research fields, and the creation of a future society	Doesn't understand the importance of one's own research.	Be prepared to understand the importance of one's own research.	Understands the importance of one's own research and be aware of its relationship to solving current social issues, creating lead research fields, and creating a future society.	To be able to explain how one's own research is related to the resolution of current social issues, the creation of leading research fields, and the creation of a future society.	To be able to logically explain how one's own research is related to the solution of current social issues, the creation of leading research fields, and the creation of a future society.	To be able to logically explain how one's own research is related to the resolution of current social issues, the creation of leading research fields, and the creation of a future society, and to be able to explain specific solutions and their effects.
	(2) Degree of awareness of the complex knowledge considered necessary for one's own research and willingness to acquire it.	Doesn't understand the need for complex knowledge.	Be prepared to understand the need for complex knowledge.	Understands the necessity of complex knowledge and be aware of their respective roles in one's own research.	To be able to explain the necessity of complex knowledge for solving current social issues, creating complex research fields, and creating a future society in one's own research.	Be able to logically explain the necessity of complex knowledge for solving current social issues, creating complex research fields, and creating a future society in one's own research.	To be able to explain the relationship between the research results to be obtained and the necessity of complex knowledge for solving the problems of the current society, creating complex research fields, and creating the future society in one's own research.
Common to all fields	(1) Degree of ability to explain one's research to non-specialists	Inadequate knowledge of one's own area of expertise.	Although has knowledge in one's own area of expertise, be unable to give explanations with non-specialists in mind.	Be knowledgeable in one's own area of expertise and be aware of people outside the field, but does not provide explanations that can be fully understood.	To have sufficient knowledge of one's own area of expertise and be able to explain the outline of one's own research so that non-specialists can gain a certain level of understanding.	Have sufficient knowledge of the area of expertise and be able to explain the originality, results, and usefulness of one's own efforts in a way that can be understood by non-specialists.	Be able to comprehensively explain the background of one's own research, the issues, the content of one's efforts, and one's contribution to society in a way that can be understood by non-specialists.
	(2) Degree of understanding of the importance of transferable skills and willingness to acquire them.	Doesn't know any transferable skills.	Has heard of transferable skills, but can't explain them.	Understands transferable skills and recognize their importance.	Awareness of the importance of transferable skills and a willingness to learn for specific skills is evident.	Recognizing the importance of transferable skills and coming up with a concrete plan to learn specific skills.	Be aware of the importance of transferable skills, and is able to plan and conduct activities to learn specific skills with a sense of purpose.
	(3) Degree of deliberation regarding post-completion utilization and contribution to society with an awareness of career paths.	Has never thought about one's career path or future prospects.	Has thought about one's career path, but has not come up with anything concrete yet.	Be aware of one's career path after completing the program and be ready to think about how to play an active role and contribute to society.	Be aware of one's career path after completing the program, and be able to explain in detail how to play an active role and contribute to society.	Be aware of one's career path after completing the program, and be able to explain how to be active and contribute to society, as well as own ideas.	Be aware of one's career path after completing the program, and be able to set specific goals and work toward a concrete image in society.

Both the essay and the interview will be evaluated in accordance with this Rubric Evaluation Table shown here.

Make sure you understand these evaluation perspectives well before you apply and be prepared for the interview test.

## Application Process

- Where to apply
  - Please fill out and submit the application form provided in the application guidelines.
- Photo
  - Face Photo (above shoulders) (jpg, bmp, png format).
  - Please name the file "**Student ID Number\_name.jpg**" (or bmp, png).
- Essay
  - Information about yourself and Research Outline
    - **Your name/ Affiliation (Graduate School, Major)/ Academic Supervisor**  
(Make sure to consult with your academic supervisor before you apply)
    - **Subject of Research/ Research Keywords**
    - **Name of associate supervisor and/or associate graduate school (major)**
      - If you have not decided these at the application stage, be sure to enter the name of the expected candidate associate supervisor or the name of the expected associate graduate school, etc.
  - Essay using Form 1
    - Please name the file "**Student ID Number\_Name.pdf**" (in .pdf format only).

Please check this slide for application process.

Name of associate supervisor and/or associate graduate school (major) are required to fill in. If you have not decided these at the application stage, be sure to enter the name of the expected candidate associate supervisor or the name of the expected associate graduate school, etc.

Please consult with your expected academic supervisor before you apply.

## Application Process

### • Essay

- Please use Form 1

### • Instructions

- Describe your research in a concise and easy-to-understand manner, including the **purpose of your research, research methods, research content**, and the **characteristics and originality of your research** (comparison with previous research, expected impact upon completion of the research, future prospects, etc.). Then, please describe in detail **what and to what extent you intend to clarify by the time you receive your degree**. Those who have applied for JSPS Research Fellowship for Young Scientists (DC1) for FY2023 may attach the application form as supplemental materials.
- Describe how you think the research results obtained through this program will result in **one or more of the following: (1) solutions to social issues, (2) creating leading research areas, and/or (3) creating a future vision of society** concretely.
- Describe what kind of "complex knowledge" you think is necessary **in accordance with the purpose of this Rhizome Program** and how you plan to acquire it.
- Describe **the transferable skills\* you plan to acquire** through this program and explain the reasons why you want to obtain these skills and how to acquire them.  
\*Transferable skills in this program include skills that can be widely transferred and applied, such as originality, flexible mindset, rising to challenges, ability to identify research needs, research management skills, data analysis skills, presentation ability, leadership skills to attract people, and other skills that are required in developing innovative human resources.)
- Describe **your ideas about your career path after completing your doctoral course, and how you would like to be active and contribute to society**.

The essay should be prepared using the Form 1 file.

Explain the purpose, methods, content, features, characteristics and originality of your own research so that it is easy for people outside your area of expertise to understand. Then, describe in detail what and to what extent you intend to clarify by the time you receive your degree. Set up your degree to be completed within the standard term of study.

Describe in detail how you think the research results obtained through this program will result in one or more of the following:

1. solutions to social issues,
2. creating leading research areas, and/or
3. creating a future vision of society concretely.

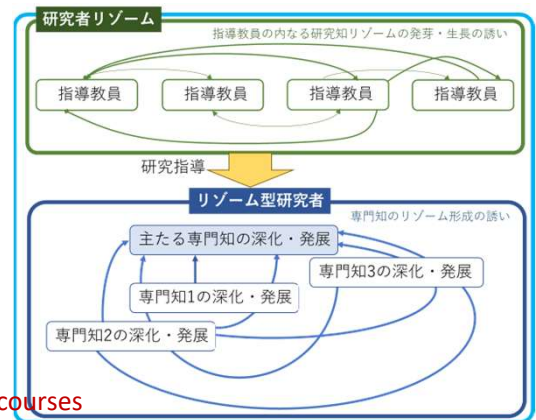
Describe what kind of "complex knowledge" or multidisciplinary knowledge you think is necessary in accordance with the purpose of this Rhizome Program and how you plan to acquire it.

Describe the transferable skills you plan to acquire through this program and explain the reasons why you want to obtain these skills and how to acquire them.

Describe your ideas about your career path after completing your doctoral course, and how you would like to be active and contribute to society.

# Student Obligations

- Determine associate supervisor and promote the research activities of Complex Knowledge
- Attend research progress report meetings (every 6 months) and make progress report
  - Also performed as qualification screening meeting
  - Evaluated by Rhizome promotion supervisors (Main and associate academic supervisors)
- Obtaining a certain number of credits from common education courses at graduate school
  - Career development
- Study abroad or in Japan for approx. 3 to 6 months: Mandatory
  - Career and network development
- Long-term internship (approx. 3 months): Recommended
  - Career and network development
- Research Paper Presentations, Participation in International Conferences
  - Research promotion, career and network development
- Attend JST research ethics training and Omu compliance training courses
- Apply for JSPS Research Fellowship for Young Scientists (DC2)



Students who are selected will have the obligations outlined here.

Attend research progress report meetings held every 6 months and make progress report. This is also performed as qualification screening meeting and if your research or rhizome activities are not satisfactory, the support may be terminated at that time. Please plan well and work on both your research and the Rhizome activities.

Some graduate schools or departments may have some difficulties to implement these. If it is the case, please consult with the Program Support Office.

If you have any questions or need assistance in carrying out these obligations, please contact the Program Support Office as well.



## Details of Support

- Grant-in-aid for Rhizome Research: JPY 2.2 million yen per year (including JPY 200,000 for research expenses)
- Rhizome Activity Support Fund: application basis (with review)
  - Financial support for studying abroad or in Japan (approximately 3-6 months, up to JPY 1.5 million during support period)
  - Financial support for long-term internship (approximately 3 months)
  - Financial support for travel and participation expenses for international conferences and summer school overseas
  - Financial support for submitting research papers (includes translation costs)
  - Financial support for organizing and managing independent projects
  - Support for career and network development

Please see this slide for what would be supported by this project.

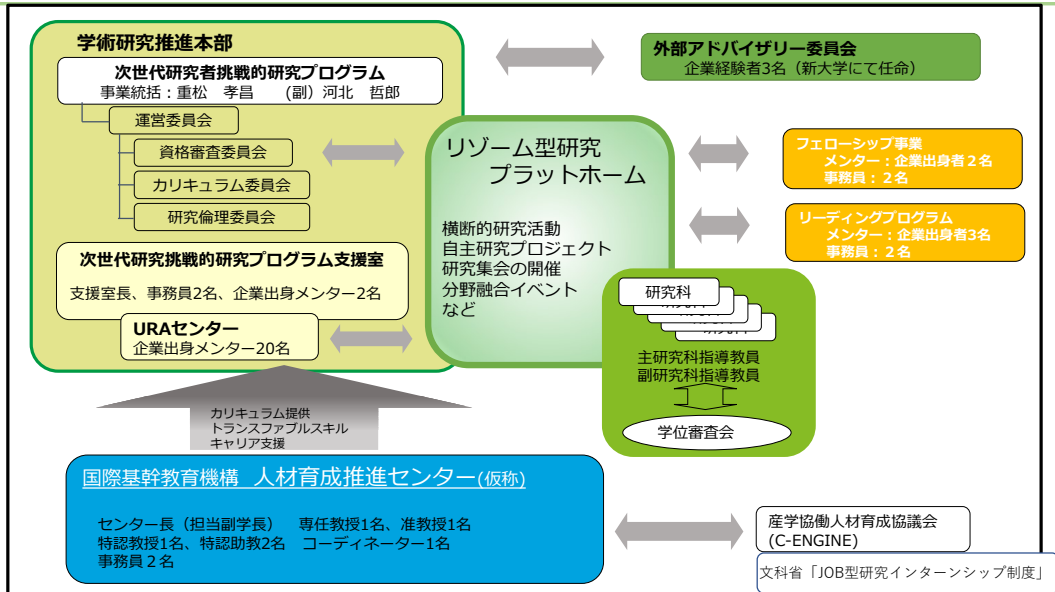
- Grant-in-aid for Rhizome Research: JPY 2.2 million yen per year. This includes a research grant of 200,000 yen for your own research activities.
- Financial support for studying abroad or in Japan: up to 1.5 million yen during your support period.
- Financial support for long-term internship (approximately 3 months)
- Financial support for travel and participation expenses for international conferences and summer school overseas
- Financial support for submitting research papers (includes translation costs)
- Financial support for organizing and managing independent projects
- Support for career and network development

These supports except for Grant-in-aid for Rhizome Research are subject to approval upon your application.

Please remind that these supports are funded by taxpayer's precious money and the budget of the fund is limited, thus your every application for these supports may not always be approved.

Please be advised of this in advance.

# Program Operation Organization



This program has been managed by these organizations. Your activities in this project will be supported by them.

If you need assistance, please contact the Program Support Office.

**We look forward to your application!**

We look forward to your application.