# Niigata University New Next Generation Project Application Guidelines for AY2024 —development of front runners having comprehensive global knowledge to lead future society

Niigata University has been selected by the Japan Science and Technology Agency (JST) to be funded under its program "Support for Pioneering Research Initiated by the Next Generation (SPRING)" for Academic Year (AY 2024, which is designed to support doctoral course students' endeavors. With this funding, Niigata University will implement the Project for Developing Front Runners Having Comprehensive Global Knowledge to Lead Future Society.

### [Purpose]

In order to develop next-generation doctoral talents capable of performing challenging and interdisciplinary research that goes beyond existing frameworks and creating innovation in diverse areas, Niigata University has established the Project for Developing Front Runners Having Comprehensive Global Knowledge to Lead Future Society\*1 (hereinafter referred to as the "New Next Generation Project") with an aim to improve treatment and help form career paths for doctoral course students with excellent academic performance. Students accepted for the New Next Generation Project are not only provided with financial support for covering their living and research expenses under a research grant, but also are required to participate in career path support programs held on campus and to undertake challenging and interdisciplinary research under the Short-term Cross-laboratory Study Program, among other requirements.\*2 After earning degrees, they are expected to take advantage of the abilities developed during the period of the project to play active roles in various social fields, mainly industrial. We hope that many doctoral course students who fully understand the purpose of the New Next Generation Project and are highly motivated to play prominent roles in science and technology as well as innovation of Japan in the future will apply for the project.

- We have established the Niigata University Vision 2030 with a mission of "Becoming a front-runner of future *life innovation*." Our definition of "life innovation" is not confined to the fields of medical care, health, and welfare, but is also innovation that creates new value and meaning of our "existence," "whole life," "way of living," "the ideal society," "involvement with the environment," as well as the bases of these: the earth and nature as we live through the 21st century.
  - For details, please visit <a href="https://www.niigata-u.ac.jp/en/university/about/mission-vision/vision2030/">https://www.niigata-u.ac.jp/en/university/about/mission-vision/vision2030/</a>
- \*2 The JST SPRING program requires fund recipients to submit a report every academic year. JST plans to make mid-term evaluations based on these reports. JST clearly states that depending on such evaluations, it may cut or withdraw funding. For the JST SPRING application guidelines and FAQ, please visit <a href="https://www.jst.go.jp/jisedai/dl/application-guideline-2024SPRING.pdf">https://www.jst.go.jp/jisedai/dl/application-guideline-2024SPRING.pdf</a> (in Japanese)

# [Eligibility for application]

1. The applicant must understand the purposes of the JST SPRING program and the Niigata University New Next Generation Project, have outstanding research capabilities or qualifications and motivation, be willing to concentrate on challenging and interdisciplinary research projects with an open and flexible mind, and satisfy the following requirements:

The applicant must be in the specified year of one of the following doctoral programs of Niigata University as of April 2024.

### For AY2024 application (new openings):

#### [1] The first year of a segment-type doctoral program

# The first year of a four-year doctoral program of medical and dental sciences

The support period is up to three years (or four years for a four-year program). If the length of enrollment exceeds three years (or four years for a four-year program), support will not be provided thereafter.

# For AY2024 application (limited openings):

## [2] The second year of a four-year doctoral program of medical and dental sciences

The support period is up to three years. If the length of enrollment exceeds four years, support will not be provided thereafter.

(Limited openings are offered this time only to secure an opportunity for those planning to apply for the existing Fellowship Support Program, which does not invite new applications for AY2024 due to program changes.)

# [3] The third year of a segment-type doctoral program

#### The fourth year of a four-year doctoral program of medical and dental sciences

The support period is up to one year. If the length of enrollment exceeds three years (or four years for a four-year program), support will not be provided thereafter. (Openings are offered to fill the quota.)

For a person who has experienced major life events such as childbirth and childcare, the support period may be suspended or extended, or other arrangements may be made according to his/her personal circumstances. The project has no limits on age or area of research.

Keep in mind that the Application Guidelines for the JST SPRING program require international students to take a career path that will contribute to Japan's science, technology, and innovation with a view to remaining in Japan after completing the program and to helping Japan become more internationally competitive. The Application Guidelines also require inviting applicants from diverse countries and regions, with a special emphasis on ASEAN nations. This requirement may be taken into account in the screening process.

The following persons cannot apply:

- (1) A student receiving support from the existing Fellowship Support Program or Next Generation Project of Niigata University\*<sup>3</sup>
- (2) A Research Fellow for Young Scientists of the Japan Society for the Promotion of Science (JSPS)
- (3) A student receiving a scholarship that is enough to cover standard living expenses (2.4 million yen per year)
- (4) A student who is recognized to be receiving a stable income as salary, executive compensation, etc. from the university, company, etc. to which he/she belongs, at a sufficient level to cover his/her living expenses\*<sup>4</sup>
- (5) An international student who receives support from the Japanese Government (MEXT) Scholarship and/or support (such as scholarship) from his/her home country
- \*3 Students receiving support from the existing Fellowship Support Program or Next Generation Project of Niigata University will be put under the New Next Generation Project.
- \*4 The standard annual compensation for adequately covering living expenses is set at 2.4 million yen per year.
- 2. The successful applicants must comply with all of the following requirements:
  - (1) Concentrating on research activities according to the research plans they have submitted
  - (2) Taking career development and training opportunities\*5
  - (3) Participating in the PhD student exchange meetings\*6
  - (4) Submitting a research plan at year-start and a research accomplishment report at year-end
  - (5) Having regular interviews with their mentor
  - (6) Registering at researchmap and updating your research achievements, as well as cooperating in various surveys, most notably follow-up surveys on your career paths over a period of more than ten years after completing their doctoral programs
  - (7) Complying with various research-related laws and regulations and the university regulations, as well as autonomously ensuring research integrity (the soundness and fairness of research)
- \*5 Career development and training opportunities, which involve both support for research capacity development and classes for career path development, can be divided under the following headings. The career development and training opportunities that students must take vary depending on their elective unit (explained later). Check the details at information sessions and the like.
  - (i) Cultivating an international mindset

    Presentations at international academic meetings, overseas education and training, contribution of
    papers to international English-language journals, and exchange events with international students.
  - (ii) Strengthening industry-academia collaboration
    Career management seminars, exchange with corporate researchers through hands-on participation
    programs, business matching with corporations, Cooperative Education through Research Internships
    and other internships as needed

- (iii) Supporting the acquisition of transferable skills

  Generic skills seminars, intellectual property education, presentation skills seminars, academic writing seminars, and events held by graduate student associations and affiliate centers
- (iv) Securing career paths for young researchersPhD recruitment forums, career seminars for doctors, and company information sessions for doctors jointly organized by partner universities (company-student matching events)
- (v). Supporting student startups and university-launched ventures Entrepreneurship education
- (vi) Supporting the acquisition of expertise and skills related to data science Seminars and workshops for gaining various skills, the Young Data Scientists Colloquium (YDSC)
- (vii) Promoting interdisciplinary research

  The Short-Term Cross-Laboratory Study Program (Multi-Laboratory System), and the U-go Salon, an
  event for interdisciplinary exchange hosted by university research administrators (URAs)
- \*6 Campus-wide interdisciplinary exchange meetings for PhD students. They may involve an overnight stay.
- 3. The first year of the New Next Generation Project (D1) involves gaining basic academic skills, transferable skills, and information and AI skills under the common menu, as well as nurturing the foundations for launching challenging and interdisciplinary research via mentor interviews. In the second year of the project (D2), students are divided among four talent development units. Students work on the activities they choose from among the compulsory activities defined, and other opportunities offered, in their respective units. We plan to introduce a point system to evaluate student performance in these activities.
- (1) Common menu (the first year (D1))

Compulsory requirements include participating in the guidance session for successful applicants, career management seminars (except for those who have already gained the credits concerned), and mentor interviews, as well as registering at researchmap and cooperative education through research internships system.

- (2) Talent development units (from the second year (D2))
  - (i) Specialty deepening unit (standard quota: 3 students for each doctoral year)

This unit is designed to develop doctoral talents who try to further deepen their specialty research capabilities through the acquisition of transferable skills and academic skills under the career support menu.

Students must contribute as many papers as or more than needed to complete the doctoral program by the end of the support period, apply for a Research Fellowship for Young Scientists of the Japan Society for the Promotion of Science (JSPS) every year, and participate in an academic writing seminar at least once a year.

## (ii) Career development unit (standard quota: 6 students for each doctoral year)

This unit is designed to develop doctoral talents who create scientific technologies and innovations across industry, academia and government through the acquisition of transferable skills and generic skills from the career support menu.

Students must participate—at least once during the support period—in the PhD recruitment forum and a generic skills seminar (three sessions in total).

**Note:** This unit is a successor to the two existing fellowships, namely, the Fellowship for Developing Innovational Information Science/AI Talents for Creating the Future and the Fellowship for Developing Highly Skilled Talents in Future Health Sciences.

### (iii) Creation (cross-AI) unit (standard quota: 6 students for each doctoral year)

This unit is designed to develop doctoral talents who can create innovations in the cross-AI field through the acquisition of not only transferable skills but also expertise and skills related to data science—which is being accelerated and diversified—under the career support menu.

Students must organize and manage a YDSC once during the support period and participate in a seminar or workshop organized by the Big Data Activation (BDA) Research Center at least once during the support period.

**Note:** This unit is a successor to the existing Fellowship for Developing Innovational Information Science/AI Talents for Creating the Future.

#### (iv) Interdisciplinary research unit (standard quota: 14 students for each doctoral year)

This unit is designed to develop doctoral talents who can create innovations in diverse fields through the use of knowledge and expertise gained through interdisciplinary research.

Students must participate in the Short-Term Cross-Laboratory Study Program (Multi-Laboratory System) except for the last academic year of the support period, during which students are encouraged to do so. With an aim to promote students' interdisciplinary and transdisciplinary research and foster their challenging and interdisciplinary research capacity, we encourage active implementation of interdisciplinary research exchange across the humanities and social sciences, science and technology, and medicine and dentistry by allowing them to engage in research at another laboratory on campus for a given period (three months as a standard for each doctoral year in and after the second year). Students must also present their multi-laboratory achievements at the year-end symposium or an on-campus research exchange meeting (the U-go Salon, etc.) at least once during the support period.

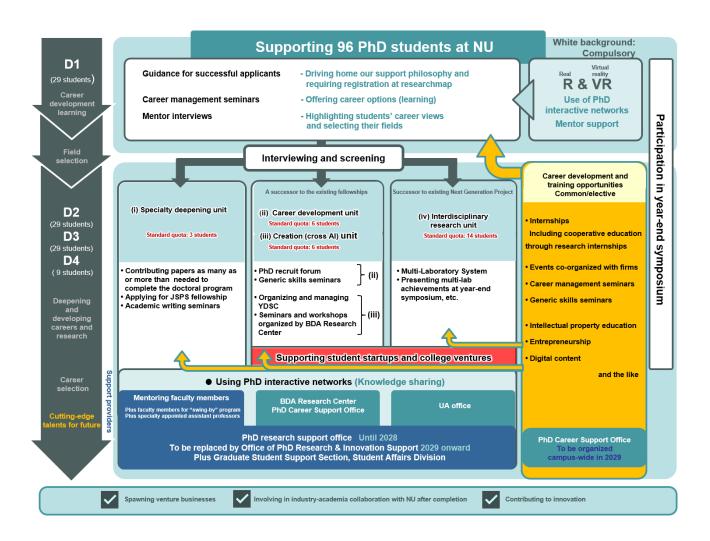
Note: This unit is a successor to the existing Next Generation Project.

In addition to the above, students must participate in the year-end symposium every year during the support period.

The compulsory activities for students who are admitted while they are in the second year or later (those who fall under [2] or [3] of "Eligibility for application") are defined separately.

We will decide how students are divided among these four units based on two factors. One is their wishes as expressed in the questionnaire form they submitted at the time of application and in their subsequent mentor interviews. The other is their performance in their first year. Because each unit has its own standard quota, it is possible that some students cannot move on to the units of their preference. The above description reflects what these units are expected to look like as of now. Their frameworks and quotas may be subject to change depending both on progress in the project and on possible changes in the project budget. Separately, this project will launch a new initiative aimed at developing doctoral talents who will start up businesses and university-launched ventures.

Note that although students may engage in activities identified for these units from their first year if they wish, this engagement will not necessarily work to their advantage in the process of dividing students among the four units.



# [Number of openings]

Category of	Category of	Program; nth year (1st/2nd/3rd/4th)	Number of
openings	applications	(As of April 1, 2024)	openings
For AY2024 application (new openings)	[1]	The first year of a segment-type doctoral program  The first year of a four-year doctoral program of medical and dental sciences	29
For AY2024 application (limited openings)	[2]	The second year of a four-year doctoral program of medical and dental sciences	4
	[3]	The third year of a segment-type doctoral program  The fourth year of a four-year doctoral program of medical and dental sciences	3

# [Support period]

For support starting in or after April 2024, the support period will be up to three years (or four years for a four-year doctoral program) for [1], up to three years for [2], and up to one year for [3] from the beginning of support in April 2024. For support that started before April 2024, if the length of enrollment exceeds three years (or four years for a four-year doctoral program), support will not be provided thereafter.

### [Support details]

- 1. Financial support for living and research expenses
  - (1) Financial support for living expenses: 175,000 yen per month. Payment is made every two months.
  - (2) Financial support for research expenses is shown below:

First year (under the common menu): 200,000 yen/year

Second year onward Specialty deepening unit: 200,000 yen/year

Career development unit: 200,000 yen/year

Creation unit: 300,000 yen/year

Interdisciplinary research unit: 400,000 yen/year

The amount may be increased depending on the nature of the research project. If the support period is six months or less, the amount to be paid will be half the yearly payment, as a rule.

- 2. Support by mentors: research environment assistance, as well as advice and suggestions regarding the development of career paths to academia or industry
- 3. Support by the PhD Career Support Office: career development and training opportunities, such as generic skills seminars

## [Application documents]

- 1. The following application documents ((i) to (iii)) must be submitted.
  - (i) Application Form for Support of Niigata University New Next Generation Project (1 drshien shinseisho en R6)
  - (ii) Letter of Recommendation for an Applicant for Support of Niigata University New Next Generation Project (2 drshien suisensho en R6)
  - (iii) Letter of Consent for an Applicant for Support of Niigata University New Next Generation Project (3 drshien douisho en R6)
- 2. The applicant must submit the document (i).
- 3. The applicant must find his/her recommender who knows the applicant well and ask him/her to submit the document (ii). (The recommender should preferably be the applicant's host faculty member (doctoral advisor) in the doctoral program.) The applicant is prohibited from reviewing the content of the letter of recommendation.

  The applicant must ask his/her host faculty member (doctoral advisor) to submit the application document (iii).
- 4. The applicant must download the prescribed forms from the following URL and complete the application documents ((i) to (iii)).

https://www.phd.niigata-u.ac.jp/en/application-guidelines-3/

If fabrication, falsification, plagiarism, or other misconduct is detected in the application documents, a strict response will be taken.

#### [Application procedures]

- 1. The applicant must take the following steps to apply.
  - (1) Register the applicant's information

    The applicant must register the necessary information in the application registration form (https://forms.office.com/r/HJ8nGe9j0n).
  - (2) Submit the application documents
    - The applicant must submit the application document (i) to <u>fs-spring@gs.niigata-u.ac.jp</u>. Convert the document to the <u>PDF file format</u> (if necessary, sign the document and capture it with a scanner), add the password "drshien\_R6" to the file, and submit it by email. The subject of the email must be "Application for Support of Niigata University New Next Generation Project for AY2024 ([Applicant's name])." The email text must include the name of the applicant, the title of the course the applicant is taking or has taken, and the email address the applicant provided on the form that is being used currently and will be used during the period of enrollment and after the completion of the doctoral program. If the applicant has no choice but to change the email address after the application, make sure to inform the Niigata University Administrative Office for Support for Pioneering Research Initiated by the Next Generation of the change.
- 2. The recommender must submit the application document (ii) to <u>fs-spring@gs.niigata-u.ac.jp</u>. Convert the document to the PDF file format (if necessary, sign the document and capture it with a scanner), add the password "drshien\_R6rec", and submit it by email. The subject of the email must be "Letter of Recommendation for Support of the New Next Generation Project for AY2024 ([Applicant's name)].

# (Student's name)])."

The applicant's host faculty member in the doctoral program (doctoral advisor) must submit the application document (iii) to <a href="mailto:fs-spring@gs.niigata-u.ac.ip">fs-spring@gs.niigata-u.ac.ip</a>. The recommender must convert the document to the PDF file format (if necessary, sign the document and capture it with a scanner), add the password "drshien\_R6rec", and submit it by email. The subject of the email must be "Letter of Consent for Support of the New Next Generation Project for AY2024 ([Applicant's name (Student's name)])."

## [Application period]

# From Monday, April 15, 2024 to Wednesday, April 17, 2024 (no later than this date)

If you do not receive an email confirmation of receipt of application in three days (not counting Saturday, Sunday, or holidays), contact us by phone using the contact information below.

Note that applications will not be accepted after the deadline under any circumstances.

# [Screening policy]

We are looking for excellent students with scholarly promise and potential for the future as well as an open and flexible mind and brilliant execution skills that go beyond the areas of study or fields of activity, and in the screening process, we value the following criteria:

- (1) The applicant understands the purposes of the JST SPRING program and the Niigata University New Next Generation Project and complies with all the requirements that are listed under the heading "Eligibility for application" (pages 1–6 of the Application Guidelines).
- (2) The applicant is willing to concentrate on research.
- (3) The applicant has excellent research abilities.
- (4) The research contains a component that can contribute to Japan's science, technology, and innovation, and therefore has the potential for further development.
- (5) The applicant has the promising potential to lead society in the future and is open to diverse career paths.
- (6) The applicant is willing to create challenging and interdisciplinary research and new fields of research not bound by existing frameworks.
- (7) The applicant is willing to gain comprehensive global knowledge and resolve social issues that may surface in the future.
- (8) The applicant is willing to undertake collaborative research with businesses and research contributing to regional revitalization and activation.
- (9) The applicant complies with various research-related laws and regulations and the university regulations and autonomously ensures research integrity (the soundness and fairness of research).

#### [Screening and notification of results]

Our screening committee conducts the first screening (document screening) and the second screening (interview). Applicants who have passed the second screening will be admitted to this project. We will notify applicants of the results of the first screening by Thursday, May 9. The second screening will be conducted on Wednesday, May 15, Thursday, May 16, or Friday, May 17. The second screening will be conducted online (Zoom) and will consist of a

presentation (3 minutes) and Q&A (5 minutes). Based on the purpose of this project, we plan to ask the applicants to explain "Reasons for applying for this Next-generation Project and career goals as an academic researcher", using one or two slides. We will notify applicants of the results of the second screening by Friday, May 24. If the quota is not filled by the end of the final screening, or if one or more of the successful applicants decline, we may admit additional applicant(s) or call for additional applications.

These notifications will be sent to the email address provided on the application registration form. (The applicant must provide an email address that is being used currently and will be used during the period of enrollment and after the completion of the doctoral program.)

### [Other matters]

The numbers of openings and the details of support may be subject to change due to the Japanese government's budgetary appropriations, out of consideration for October entrants, or for other reasons.

## [Contact information]

Niigata University Administrative Office for Support for Pioneering Research Initiated by the Next Generation (Graduate Student Support Section, Student Affairs Division)

Phone number: 025-262-6110 Fax number: 025-262-6991

Email address:fs-spring@gs.niigata-u.ac.jp