Specially Appointed Faculty (Fixed-term)
(Recruitment No. 11, Nano Life Science Institute, Kanazawa University)

[Institution] Kanazawa University

[URL] https://nanolsi.kanazawa-u.ac.jp/en/

[Department] Nano Life Science Institute (WPI-NanoLSI)

[Institution Type] National University

[Position Description]

The Nano Life Science Institute (NanoLSI) at Kanazawa University was established in 2017 as a world-leading research center under the World Premier International Research Center Initiative (WPI) of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). The institute is engaged in the development of state-of-the-art bio-scanning probe microscopy (bio-SPM) technologies, such as atomic force microscopy (AFM) and scanning ion conductance microscopy (SICM), as well as in nano-life science research utilizing these advanced techniques.

To achieve these objectives, the institute promotes interdisciplinary research that integrates four key fields: nanometrology focused on bio-SPM, life sciences, supramolecular chemistry, and computational science. Within this framework, researchers in supramolecular chemistry are engaged in the development of molecular sensors, the creation of nanoprobe sensors by incorporating these sensors into the tips of AFM and SICM probes, and the development of surface modification techniques for substrates used in AFM and SICM measurements. Meanwhile, researchers in computational science utilize advanced data science techniques—including simulations, machine learning, and statistical analysis—to verify the principles of SPM measurement methods, analyze SPM measurement data, and conduct mathematical modeling and simulations to understand biological phenomena, comparing them with experimental results obtained by SPM.

Since its establishment in 2017, the institute has focused over the past 10 years on developing nanoendoscopic SPM technology capable of directly observing, analyzing, and manipulating intracellular nanodynamics in living cells, as well as on research into fundamental cellular functions and cancer-specific abnormalities using advanced SPM techniques. Over the subsequent five years from 2027 onward, the institute aims to further advance these research efforts while also developing local sampling SPM technologies. These technologies involve collecting portions of cells or tissues using nanopipettes and analyzing them with a variety of single-molecule and single-cell analytical techniques, including SPM. In addition, the institute seeks to expand the application of SPM technologies to a wide range of diseases beyond cancer.

We are seeking specially appointed faculty members who will play central roles in promoting research activities in Computational science field.

[Field of Recruitment]

・Research field of multicellular systems, including mechanics, morphogenesis, and biomedical engineering.

・In particular, the focus is on the mechanical properties, morphogenesis, and functional expression of multicellular tissues in development, evolutionary development, aging, and disease.

・Related fields include developmental biology, evolutionary developmental biology, cell and tissue mechanics, biophysics, mathematical biology, biomedical engineering, computational biology, mechanobiology, tissue engineering, and fields related to medicine and neuroscience.

[Research Field]

Area: Life Sciences

Discipline: Biophysics

[Work Location]

Nano Life Science Institute, Kanazawa University,

Kakuma-machi, Kanazawa, Ishikawa 920-1192, Japan

[Number of Positions]

1 position. (One individual will be recruited, either as a specially appointed assistant professor under this call or as a postdoctoral researcher under a separate recruitment.)

[Starting Date] April 1, 2027 or as soon as possible thereafter. (negotiable)

[Main Duties]

• Research activities

This laboratory focuses on the mechanics of multicellular tissues, aiming to understand, predict, and control biological phenomena related to development, evolutionary development, aging, and disease. The primary targets include the development of the brain, eye, inner ear, and skin; functional expression and aging changes in the brain and skin; and multicellular phenomena involved in cancer, Alzheimer's disease, and other neurodegenerative disorders.

To achieve this, the laboratory utilizes observation, measurement, and manipulation techniques such as AFM and multiphoton microscopy, as well as computational approaches including numerical modeling (e.g., 3D vertex models), to elucidate and apply the underlying mechanical principles.

In this recruitment, we seek researchers who specialize in one of the following areas: biological experimentation, mechanical measurement and imaging, or mathematical and computational

modeling.

- Dissemination of research results to society and outreach activities
- Educational activities such as lectures and seminars in undergraduate and master's programs (Since research activities are the main focus, educational activities will be limited in scope and the specific responsibilities will be decided through consultation)
- Assisting young researchers, graduate students, and undergraduate students with research guidance

[Job Title]
Assistant Professor (equivalent)

[Employment Status] Full-time (non-tenured)

[Qualifications]
Applicants must satisfy all of the following qualifications.

1) Demonstrated high research capabilities and the ability to conduct research in English.
2) Possess adequate communication skills, research presentation skills, and the ability to write research papers.
3) Ability to collaborate with the research group leader and conduct research as a member of the research group.
4) A doctoral degree(including a PhD from an overseas university) must have been awarded or is expected to be awarded by the time of appointment.
5) Experience in international collaborative research is desirable.
6) This position is a specially appointed position with a fixed employment period. As this is a fixed-term position, renewal of employment after the end of the employment period is not guaranteed, and appointees are expected to engage in activities toward their next career step during the term.
   Therefore, applicants whose continuous employment period at this university exceeds nine years as of April 1, 2027, are not eligible to apply. In addition, the total continuous employment period at this university cannot exceed ten years.

Terms and Conditions
[Details of salary, working hours, holidays, period of employment and insurance, etc.]

[Position] Specially Appointed Assistant Professor (Full-time)

[Period of Employment]
The initial appointment is for one year from the date of employment and may be renewed. The maximum cumulative term of employment is six years.
*Promotion and salary increases may be granted based on performance during the

employment period.
*The starting date is negotiable.

[Working Conditions]
Working hours, holidays, and leave are determined in accordance with the Kanazawa University regulations concerning working hours, holidays, and leave.
*The discretionary labor system for professional work applies.

[Salary]
Salary is paid in accordance with the regulations concerning the employment of specially appointed faculty members at Kanazawa University, a national university corporation. It may also vary depending on the individual's experience and abilities.

Kanazawa University has a system in place that allows for the expenditure of personnel costs (equivalent to the effort spent on research activities) for principal investigators (PIs) and related personnel from direct costs such as competitive research grants. This system may allow for the use of funds secured through the expenditure of PI personnel costs to improve research capabilities.

[Other Information]
Social Insurance: MEXT Mutual Aid Association
Employment Insurance: Covered

For working conditions other than those listed above, please refer to the National University Corporation Kanazawa University Employment Regulations for Specially Appointed Faculty Members (available at the URL below; Japanese only).

URL: https://www.kanazawa-u.ac.jp/university/administration/regulation/rules

[Application Period]
Deadline for receipt:, December 15, 2026 (Applications will be reviewed on a rolling basis. If a suitable candidate is identified, the position may be closed after one month from the start of the application period.).

[Application, Selection, Notification of Results, and Contact Details]

[Application Documents]
1) Curriculum vitae including a recent photograph, present address, phone number, email address, academic background, research experience, professional experience, and other relevant information, as well as ORCID iD and ResearcherID

2) List of research activities, organized under the following categories: dissertation/thesis, peer-reviewed journal papers, conference presentations, review articles, books, patents, etc. For each item, provide all co-author names, publisher or journal/conference name, volume(issue), page range, year of publication, and DOI (if available).
3) PDF copies of up to five major publications
4) List of external research funding (including Grants-in-Aid for Scientific Research (KAKENHI), commissioned research, joint research, donations, etc., and their amounts)
5) Summary of past research and teaching activities (approximately one A4 page)
6) Statement of the applicant's research interests, achievements, and future plans (approximately one A4 page)
7) Names, affiliations, and contact details of two referees

*All documents must be prepared in English. However, if it is not appropriate to provide certain items (such as a curriculum vitae or information on external funding) in English, those items may be written in Japanese.

- Please submit the application documents by email.
  Email: nanolsi-jobs@adm.kanazawa-u.ac.jp
- If the file size exceeds 5 MB, please use a file transfer service.
- Please include "Application Documents for Specially Appointed Faculty (Recruitment No. 11)" in the subject line of the email.

[Selection Process (Selection Method and Hiring Decision) and Notification of Results]

Document screening and interview
*Travel expenses for the interview will not be covered.

[Contact Information]

For details regarding job duties, please contact the following address:

Kanazawa University Nano Life Science Institute
Associate Professor　Satoru Okuda
Tel:076-234-4579
Email: satokuda@staff.kanazawa-u.ac.jp

For inquiries regarding employment regulations or administrative procedures, please contact the following address:

Nano Life Science Institute, Kanazawa University
Tel: +81-76-234-4550
Email: nanolsi-jobs@adm.kanazawa-u.ac.jp

[Additional Information]

1) The website below provides information about employment regulations.
https://nanolsi.kanazawa-u.ac.jp/en/staff/rules/

2) Kanazawa University actively promotes gender equality in the workplace. For details, see the following URL:
https://cdl.w3.kanazawa-u.ac.jp/en/

3) At NanoLSI, many female researchers are actively engaged in research activities. For details, see the following URL:
https://nanolsi.kanazawa-u.ac.jp/en/research/diversity/