



Kanazawa University



Introduction

Kanazawa
BASIC DATA as of May 1st, 2023
 Total Enrollment: 10,331 students
 Budget for 2022: 68,550 million Yen
 Faculty and Staff: 2,927 personnel
 Campus Size: Kakuma 2,008,565 m²
 Takara-machi Tsuruma 151,053 m²

| Colleges | Schools |
|---|---|
| Transdisciplinary Sciences for Innovation | Entrepreneurial and Innovation Studies |
| | Tourism Sciences and Design |
| | Smart Technology and Innovation |
| Human and Social Sciences | Humanities |
| | Law |
| | Economics |
| | Teacher Education |
| | Regional Development Studies |
| Science and Engineering | International Studies |
| | Mathematics and Physics |
| | Chemistry |
| | Mechanical Engineering |
| | Frontier Engineering |
| | Electrical Information and Computer Engineering |
| | Geosciences and Civil Engineering |
| | Biological Science and Technology |
| Medical, Pharmaceutical and Health Sciences | Medicine |
| | Pharmacy |
| | Medical and Pharmaceutical Sciences |
| | Health Sciences |

"School of Smart Technology and Innovation" was established on April 1st, 2023.

For more information...
International Students:
<https://www.adm.kanazawa-u.ac.jp/ie/e/index.html>
Directory of Researchers:
https://ridb.kanazawa-u.ac.jp/public/index_en.php
University Outline:
<https://www.kanazawa-u.ac.jp/wp/wp-content/uploads/2022/10/en2022.pdf>

| Graduate Schools |
|---|
| Human and Socio-Environmental Studies |
| Natural Science and Technology |
| Medical Sciences (includes Pharmacy and Health Sciences) |
| Advanced Preventive Medical Sciences |
| Frontier Science Initiative |
| Law School (Professional Degree Course only) |
| Professional Development in Teacher Education (Professional Degree Course only) |

A research university dedicated to education, while opening up its doors to both local and global society

----- **Kanazawa University** -----

The Stronghold of Intellect in East Asia



Ishikawa and Kanazawa

Ishikawa prefecture is famous for its beautiful four seasons, rich tradition and history, hot springs, and exceptional food of land and sea resulting in famous gourmet culture. Satoyama in Noto Peninsula is an Agricultural World Heritage registered by UNESCO. (Satoyama means "local mountain area," and it is an ecosystem in which human civilization and local biodiversity coexist in harmony.)



① Senmaida(1,000fold rice fields) / ② Shiroyama-Hime Shrine(Hakusan worship) / ③ Kanazawa Castle / ④ Hyakumangoku Festival / ⑤ Metal Gold Leaf (Traditional Art) / ⑥ Kenroku-en Garden / ⑦ Kiriko Festival (giant lanterns) / ⑧ Mt. Hakusan

Kanazawa University Alumni Association in Thailand was established on August 23, 2014. The Foundation Party took place in Bangkok, and President Koetsu Yamazaki and other delegates participated. The event was attended by 8 honorable guests from Thai universities and the Embassy of Japan in Thailand, as well as 31 alumni and their company. There is much anticipation for further exchanges through the network of the association.

Major Research Projects

JIKOCYOKOKU PROJECT

<http://www.o-fsi.kanazawa-u.ac.jp/research/jikochokoku/>

Renewal of Fallen Trees in the Sea: Ecosystem Nurtured by Whale Remains ----- The decomposition process, chemical reactions, and mineral precipitation of microorganisms in the ocean will be clarified. The goal of this project is to elucidate the decomposition of organic matter by such a microbe-animal community, together with the chemical reactions occurring inside the bones.

Elucidation of the molecular mechanism of plant cell growth ability for the creation of high biomass plants ----- Focuses on identification of key factors that generate differences in epigenetic regulatory systems between plant species in which DNA doubling occurs and those in which it does not and elucidation of the molecular mechanisms of cytoskeleton accumulation.

Elucidation of the command center of higher brain functions in humans ----- Aims to directly evaluate, analyze, and validate the mechanisms of (1) localization of command posts, (2) information processing networks, and (3) plasticity in the human brain for various higher brain functions.

Establishment of a method to recover platinum group elements from the aquatic environment ----- By utilizing various physical and chemical external fields such as electrostatic, oscillating electric, optical, and chiral fields, we can precisely and freely construct molecular nanoarchitectures such as interfaces with dipoles and chiral molecules arranged in one direction.

Innovative Methodology for Precise and Flexible Architecture of Molecular Nanoarchitectures and Interfaces ----- Aims to establish an innovative methodology for realizing precise and flexible architecture of nano-molecular assemblies at surfaces and interfaces based on the idea of "flexible molecular arrangement using external fields that induce physical and chemical stimuli."



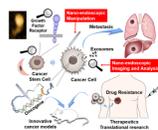
Nano Life Science Institute (NanoLSI)

<https://nanolsi.kanazawa-u.ac.jp/>

Outline ----- Aims to combine the world's most advanced bio-scanning probe microscopy (SPM) and methods in supramolecular chemistry to develop "nano-endoscopic techniques" that enable direct imaging, analysis, and manipulation of protein, nutrient, and nucleic acid nano-dynamics on the cell surface and inside the cell. Its goal is to facilitate complementary use of this technique with multi-scale simulation technology to further the current understanding of various molecular cell dynamics related to cancer pathogenesis. Furthermore, we aim to develop a novel field of study based on this technology, known as "nano-probe life science," committed to enhancing our current understanding of various biological phenomena including those associated with cancer pathogenesis.

Specialties ----- 1. To ensure sustainability of this center, the budget and human resources of an existing organization, which was formed with the goal of creating new, interdisciplinary fields of study, will be utilized. 2. To reduce administrative work to a minimum and cultivate a research-focused environment, the university's unique "research professor system" will be applied to all Principal Investigators. 3. To nurture young researchers with interdisciplinary, comprehensive, and international research capacities, specially selected educational programs will be developed..

Research Aims ----- 1. To enable intra/extracellular imaging at the nanoscale level, we will integrate Kanazawa University's state-of-the-art bio-SPM technologies, such as high-speed 3-dimensional atomic force microscopy (AFM) and rapid scanning ion-conductance microscopy (SICM). 2. To enable analysis and manipulation of intra/extracellular nanoscale dynamics, we will integrate bio-SPM and techniques in supramolecular chemistry, such as molecular sensors and molecular machinery. 3. To further our understanding of the causes of various functional abnormalities exhibited by cancer cells at the nanoscale level, we will utilize innovative nano-probe and simulation technologies..



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(HP) <https://www.kanazawa-u.ac.jp/e/>

AND

[AP-SixERS (SixERS ASEAN Platform)] KMUTT Knowledge Exchange for Innovation Center (KX) 12F



<https://www.kanazawa-u.ac.jp/e>