

GLOBALIZING EDUCATION AND RESEARCH IN JAPAN

A research university committed to high-quality education, **KANAZAWA UNIVERSITY** is striving to establish interdisciplinary and international networks that will lead Japan into a new era

Established nearly seven decades ago but with roots stretching back over a century and a half, Kanazawa University has a proud tradition of contributing to the development of Japan and the world. Only two and a half hours by bullet train from Tokyo, the university has become the leading university on the Sea of Japan coast, with more than 10,000 students enrolled in various undergraduate and postgraduate courses.

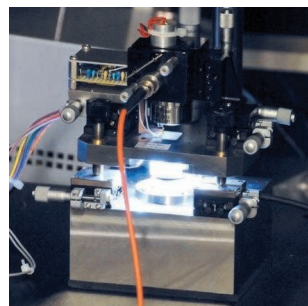
Embracing globalization

Kanazawa University is strongly committed to implementing global standards for education, training and research. Realizing the importance of establishing networks and collaboration in these areas, the university has recently developed new goals to help it to address the challenges of the future. In particular, the university will further its contribution to society by promoting international and interdisciplinary education and research through establishing the Kanazawa University Model for Globalization — a model designed to enable the university to lead the globalization of

Japan by providing top-quality education based on its unique global standards. Students and researchers will be encouraged to initiate and develop networks and collaborations as well as to take active roles on the world stage. This globalization model will consolidate Kanazawa University's place at the centre of higher education and research in East Asia.

Strengthening priority research

Kanazawa University is cultivating the full spectrum of research — from fundamental investigations to technology-related studies. To further promote high-quality research throughout the institution, it launched two new initiatives in 2014 — Chosen ('challenge') and Sakigake ('forerunner') Projects. Funded by the university, these projects provide support for research proposals selected by an internal competition. They seek to promote Kanazawa University's five priority research areas: nanoscience research using innovative atomic force microscopy techniques (see bottom left photo); nutrition-related diseases; cancer progression;



cultural-resource studies; and innovative material sciences based on supermolecules. "Our work in these areas is already internationally competitive," says President Koetsu Yamazaki. "We aim to create world-class research centres focusing on these fields."

In 2014, the university also introduced the Research Professor System, which aims to promote top-class researchers. The system has three categories. The first invites world-renowned researchers to the university with the dual purpose of learning from their expertise and forming strong collaborations with them. For example, Jean-Pierre Sauvage, who was awarded the

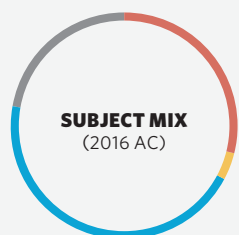
2016 Nobel Prize in Chemistry for his work on molecular machines, came to Kanazawa University through this scheme. The second category promotes researchers at the university who have achieved remarkable results, while the third supports promising young researchers who have world-class potential. "The Research Professor System will create a world-leading research environment for young scientists to work in," comments Yamazaki.

Promoting interdisciplinarity

As we enter an era of uncertainty, research will become more important than ever. Kanazawa University

EXCELLING IN RESEARCH

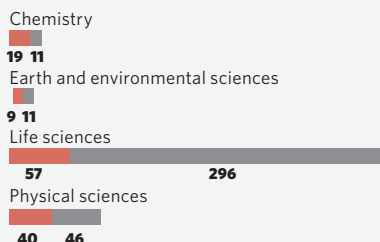
KANAZAWA UNIVERSITY believes in creating an excellent research environment through fostering collaboration.



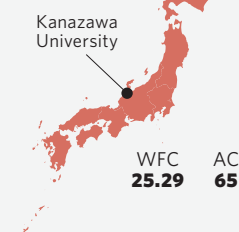
Chemistry
Earth and environmental sciences
Life sciences
Physical sciences

NUMBER OF DOMESTIC AND INTERNATIONAL COLLABORATING INSTITUTIONS BY SUBJECT (2016)

Domestic
International



WFC AND AC (2016)



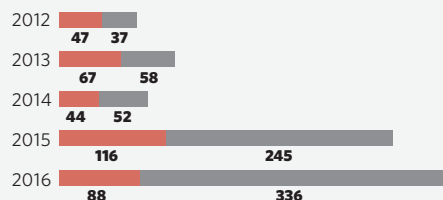
THE QUIESCENT INTRACLUSTER MEDIUM IN THE CORE OF THE PERSEUS CLUSTER

Journal: *Nature*
Published: 6 July 2016
DOI: 10.1038/nature18627
Affiliations: 72
Authors: 215



NUMBER OF DOMESTIC AND INTERNATIONAL COLLABORATING INSTITUTIONS (2012-2016)

Domestic
International



TOP 5 COLLABORATING COUNTRIES BY NUMBER OF COLLABORATING INSTITUTIONS (2016)

1. United States of America (USA) 98
2. Germany 32
3. United Kingdom (UK) 28
4. Australia 24
5. France 22



Source: Nature Index

recognizes that no single person, discipline or nation can solve the plethora of challenges facing humanity. It is hence adopting a collaborative and network-based approach to foster outstanding researchers who work internationally and across disciplines to engage in new challenges that require breaking conventional molds. To this end, the university established the Institute for Frontier Science Initiative (InFiniti) in 2015 to further promote interdisciplinary research and foster global scientists. The 16 research units in the initiative are primarily led by young principal investigators in conjunction with unit leaders. "The initiative seeks to promote communication between units and collaborative projects between young researchers

and graduate students," says Yamazaki.

The university's promotion of interdisciplinary research is also reflected in new initiatives at two of its institutes. The Joint Usage/Research Center permits all members of the Cancer Research Institute to collaborate between fields with the aim of establishing an international centre of excellence on metastasis and drug resistance. A similar initiative is in place at the Institute of Natural Environmental Technology, which focuses on countering man-made atmospheric and oceanic changes in the Sea of Japan region. Through cooperating with domestic and overseas institutions, the institute intends to promote education and research in

environmental issues such as Asian Dust and create a sustainable environment in the region.

Encouraging brain circulation

With its goal of being "a research university dedicated to education, while opening its doors to local and global society," Kanazawa University seeks to be a hub for top-class education and research in East Asia. It aims to provide a world-class international research environment that attracts excellent young researchers who are inspired to tackle new challenges. A key focus is building on existing knowledge while fostering the exchange of novel and diverse ideas by forming networks. "It's vital for young researchers

of diverse backgrounds to communicate and broaden their perspectives as well as deepen their expertise," says Yamazaki. To achieve this, the university provides funding and scholarships to encourage young researchers to study overseas. "Universities have a significant role to play in educating human resources in science and technology," says Yamazaki. "Steeped in history, culture and nature, Kanazawa University opens doors of opportunities to young people worldwide." ■



Kakuma Kanazawa, Ishikawa,
920-1192, Japan
www.kanazawa-u.ac.jp/e
+81-76-264-5111