HOKKAIDO UNIVERSITY RESEARCH



COLLABORATING WITH HOKKAIDO UNIVERSITY



Task Force for Research Strategy, **Hokkaido University**

The aim of Task Force for Research Strategy (TFRS) is to promote the research activities at Hokkaido University. The duties of TFRS include collecting and compiling information on research activities currently being undertaken at Hokkaido University, providing support for coordinating large scale interdepartmental and cross-disciplinary projects, and strengthening the inter and intra-departmental networks of researchers. TFRS also provides various educational programs for those who pursue a career in research administra-

The TFRS can also act as a contact point for international researchers wishing to instigate research collaboration with Hokkaido University. Contact them via the website or email address below.

http://www.cris.hokudai.ac.jp/cris/ura/en/ ura@cris.hokudai.ac.jp



Oshoro Marine Station Yoichi Orchard

Usu Volcano Observatory

FACILITIES

Teshio Experimental Forest

SAPPORO

Akkeshi Marine Station

Botanic Gardens

Muroran Marine Station

Tomakomai Experimental Forest Toya Lake Station

Shizunai Livestock Farm

North America

HAKODATE Usujiri Fisheries Station Hiyama Experimental Forest Nanae Fresh-Water Station

(Plus Wakayama Experimental Forest, Honshu)

Staff 2053

otal Researc 2013-2014 29.2 Billion Yen

uropo 107

18,161

WORLD WIDE NETWORK

Hokkaido University has forged 326 International Partnerships throughout the world, and these linkages reflect Hokkaido University's global outlook and a history of productive international relationships for research, teaching and learning and engagement.

This number of bilateral international agreements contain both agreements signed at the University-wide level (126) as well as Departmental-wide (200.)

Middle East South America





UNIVERSITY **A GLANCE**

1876

180ha

CONTACT OUR RESEARCH INSTITUTES AND CENTERS

Institute of Low Temperature Science

■ www.lowtem.hokudai.ac.jp/en/

Research Institute for Electronic Science

■ www.es.hokudai.ac.jp

Institute for Genetic Medicine

■ www.igm.hokudai.ac.jp

Catalysis Research Center

□ www.cat.hokudai.ac.ip

Slavic Research Center

☐ http://src-h.slav.hokudai.ac.jp

Information Initiative Center

■ www.iic.hokudai.ac.jp

Research Center for Zoonosis Control

■ http://www.czc.hokudai.ac.jp/en/

Central Institute of Isotope Science

■ http://www.hokudai.ac.jp/radiois/

Research Center for Integrated Quantum Electronics

■ www.rciqe.hokudai.ac.jp

Field Science Center for Northern Biosphere

■www.hokudai.ac.jp/fcs

Meme Media Laboratory

■ www.meme.hokudai.ac.jp/index-e.html

Center for Advanced Tourism Studies

□ http://www.cats.hokudai.ac.jp/

Center for Ainu & Indigenous Studies

■ www.cais.hokudai.ac.jp/english/

Research Center for Integrative Mathematics

www.math.sci.hokudai.ac.jp/center/en/

Center for Environmental and Health Sciences

■www.cehs.hokudai.ac.jp/en/

Center for Translational Research ■ www.ctr.hokudai.ac.jp/

Center for Experimental Research in Social Sciences

☐ http://lynx.let.hokudai.ac.jp/cerss/

Research Institute for Information Law & Policy

□ http://www.juris.hokudai.ac.jp/riilp/index_e.html

Research Center for Environmental Nano and Bio Engineering

■ http://www.eng.hokudai.ac.jp/nanobio/

Center of Education and Research for Topological Science and Technology

■ http://www.topo.hokudai.ac.jp/en/



Office of International Affairs

Division of International Relations Kita 15, Nishi 8, Kita-ku, Sapporo, 060-0815

- +81-(0)11-706-8023
- 🖫 www.oia.hokudai.ac.jp

RESEARCH POWERHOUSE

65,000 hectares of campus resources...

Age and Prestige

Hokkaido University is one of the oldest, largest, and most prestigious universities in Japan. Boasting the largest number of faculties of Japan's national universities, we cover almost all areas of the humanities and sciences and are leaders in many research activities across Japan and around the world.

The breadth and depth of pioneering research conducted at Hokkaido University has seen the cultivation of many great thinkers. Our alumni include a Nobel laureate, business leaders, research pioneers, artists and prolific writers. Hokkaido University is determined in its aim to develop curious minds that can embrace challenges and reveal new global perspectives to find solutions which change society for the better.

Internationally renowned research

With one Nobel Prize, two recipients of the prestigious 'Order of Culture' and twenty-one recipients of the Japan Academy Prize, Hokkaido University has produced a wealth of talent - and with this, ground breaking research.

Emeritus Professor Akira Suzuki, who worked tirelessly for decades at Hokkaido University, won a Nobel Prize in Chemistry in 2010. The prize was awarded for his research titled "palladium-catalyzed cross couplings in organic synthesis." His breakthrough was that he produced a more stable, nontoxic reaction compared with other reactions inorganic synthetic chemistry, and in doing so changed the face of many types of manufacturing, including the production of pharmaceuticals. Other notable Alumni include two Stockholm Water Prize Laureates - Dr. Takeshi Kubo who is renowned for his long and distinguished career in organizing Tokyo's massive sewage system (awarded 1994) and Dr Takashi Asano, for his outstanding contributions to efficient use of water in the domain of wastewater reclamation, recycling and reuse.

Integrated Research Hub of Foods, Exercise, Health and Medical Care Studies for Creating Next Generation Healthy Lifestyles

Building a healthy and active society for the world's fastest ageing country, this project aims to create a sustainable system through integrating cutting-edge findings in the research areas of Foods, Exercise, Health and Medical Care. Under this sustainable system:

- The "Health-care center" is shifted from the hospital to the household.
- "Healthcare promotion" is transformed from medical treatment to prevention and health promotion.
- The administration of one's health changes from diverse administration by medical institutions to uniform management by individuals.

The overall objective of this exciting research aims for a society where at anytime, anyplace, you manage your own diet, exercise and medical care.

Hokkaido University Research Initiatives in Northern Eurasia and Pan-Arctic Regions

Hokkaido University is conducting a broad range of research activities in environmental sciences, social sciences, and humanities in collaboration with institutions in Russia as well as Slavic countries. The pan-arctic region is grappling with issues such as climate change and energy use and Hokkaido University aims to become a research hub actively solving these problems facing the region.

Some of the research activities we are undertaking include;

- Observation of terrestrial ecosystems in the pan-Arctic region and effects on climate
- Research on ocean, ice and material circulation in Okhotsk, Amur, and the pan-Arctic regions
- Observation of earthquake, tsunami, and volcanoes in Far Eastern Russia
- Area studies on Northern Eurasia

HU R&BP 'A Hub of Innovation'

The Hokkaido University Research & Business Park (HU R&BP), an innovation hub supported by 12 organizations and serves as a base for cutting-edge research and development (R&D) through collaborations among industrial, academic and government partners. By bringing together R&D in a range of diverse fields, the HU RB&P aims to become a world-class centre of innovation

The HU R&BP has been formally recognized by the Japanese government as a global innovation hub and now supports three national projects, in food, translational science, and drug discovery/medical care and the aim is to make make Hokkaido the world's best health science and medical care integration hub within a decade.

Equipment Management Center

The Equipment Management Center (EMC) serves as an open facility for research in science and technology. The Center welcomes researchers from both HU as well as external research and business organizations to make use the state of the art facilities within the EMC to further collaborative research.

More than 110 different types of scientific equipment, instruments, and associated devices are available for use, including the only Isotope Imaging Microscope in the world, an Ultra-High Precision Electron Beam Lithography System, a Sorption Analyzer and much more.

For a complete list of equipment / services as well as a price list, potential users are requested to contact \subseteq shien@cris.hokudai.ac.jp

Museum

The mission of The Hokkaido University Museum is to collect, preserve, document, digitize and utilize for the purposes of research, regular exhibitions and educational programs, the scientifically significant specimens and historical documents which the University has been accumulating since its establishment in 1876 to the present day. The museum also plays an important role in the training and education of both students and local citizens.



Hokkaido University Botanic Gardens are the oldest of their kind in Japan,

opening in 1886. Today, the site is 400 meters square, and consists mainly of

old growth trees including alpine varieties. The resource rich gardens hold

around 4,000 kinds of plants and a museum, known as the Natural History

Museum, which exhibits Ainu artifacts, and local archaeological and biological

Experimental Forests

Hokkaido University's network of University Forests consist of six experimental forests, a tree breeding station, a tree nursery, and two experimental stands and cover around 700 km2. The University Forests range from cool-temperate forests to warm temperate forests including one that has the largest field training station amongst any Japanese University. All research is focused around forest dynamics, forest environment and function, conservation biology, as well as regional resource management.



Covering be stations whi ing, oceanous outposts off

■ Marine Stations

Botanic Gardens

Covering both fresh and salt-water, Hokkaido University owns six marine stations which conduct research on farming techniques, genetic engineering, oceanography, and marine ecology, conservation and diversity. These outposts offer regular field work to students of both science and fisheries science.



Livestock Farm ▶

Research and education on livestock production and sustainable landuse is carried out at Shizunai Livestock Farm. Particular research carried out on the farm include but is not limited to: studies on keeping native Hokkaido horses; high roughage feeding systems for growing and fattening cattle; management systems for grazing cattle in uneven pastures; behavioral studies for grazing animals in mountainous sloped lands; physico-chemical properties of meadow soils and runoff of sloped grasslands.



◆ Marine Research Vessels

The Oshoro Maru (left) as well as the smaller Ushio Maru are training ships which belong to Hokkaido University's School of Fisheries Sciences. They are used as facilities for students to conduct experiments and receive hands-on training as well as for research. The vessels play an important role in investigating marine-related physics, chemistry, biology, and biological production sciences as well as data collection.

