Spring 2020

LITTERAE POPULI

A news magazine presented by Hokkaido University

Recent News from Hokkaido University

Litterae Populi

Litterae Populi is a bi-annual magazine with the latest news about Hokkaido University. Its name is Latin for "letters of the poplar trees."

Contents

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Cover photo taken at Furukawa Hall

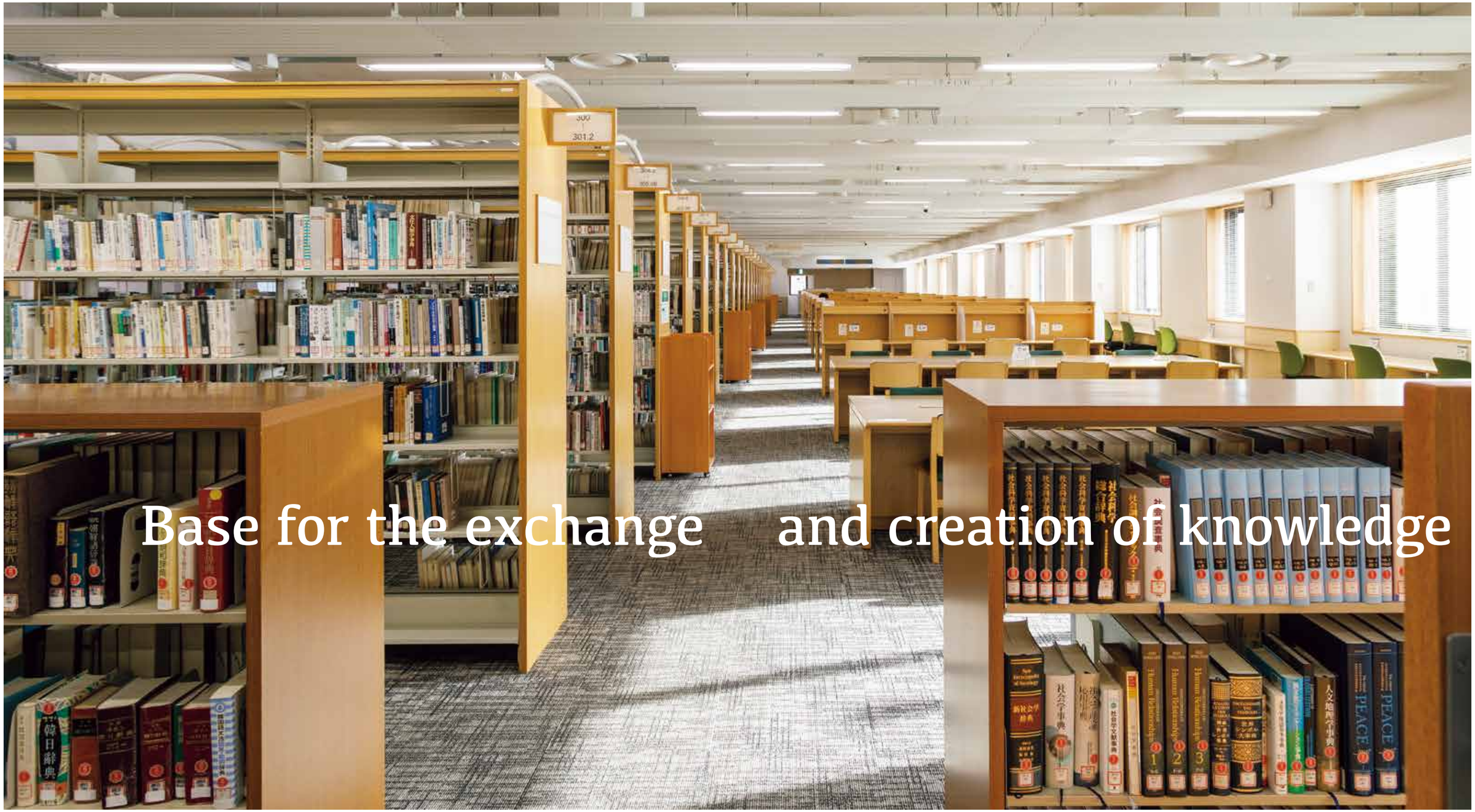
Photo of the Hokkaido University Museum

Feature: Nurture

Hokkaido University will celebrate the 150th anniversary of its foundation in 2026.

The university has followed its basic philosophy since the opening of its predecessor, Sapporo Agricultural College, and has produced a wealth of talent who have played active roles around the world over its long history.

Under the theme of "nurture," this feature highlights three initiatives undertaken to fulfill the university's missions—namely, education, research and regional contribution.



Reading room on the fourth floor of the Central Library.

Feature: Nurture

University Library

University library where knowledge is accumulated.
The library serves as a place for the exchange and creation of knowledge through learning support for students, preservation and presentation of the university's research results, support for lifelong education of the general public and other activities.

Students studying in the Global Floor on the third floor of the North Library.

A library with 6,149 books was established at the same time as the opening of Sapporo Agricultural College in 1876. This is where the history of the Hokkaido University Library began. The first director was Nitobe Inazo. The tile-roofed white library building (currently registered as a tangible cultural asset by the national government) constructed in 1903 was used until 1965 when the current Central Library was built. In 1969, the Branch of General Education (present North Library) was newly built.

The library was renamed the Hokkaido University Library in 1947 after World War II. The library currently manages the Central Library near the front gate of the Sapporo Campus, the North Library near the Institute for Advancement of Higher Education and 16 departmental libraries in departments, faculties and research centers, which house approximately 3.78 million books and 55,000 electronic books/journals in total.

Based on the university's four basic philosophies of "Frontier Spirit," "Global Perspectives," "All-round Education" and "Practical Learning," the mission of the Hokkaido University Library is to promote social contribution and internationalization while improving its support for education, learning and research. The library is making various efforts to fulfill its mission during this time in which there is a growing tendency for university students to not read books and society is becoming increasingly information-intensive and digitized.

Nurturing students

One important role of the University Library is to provide support for education and learning. The library is conducting various projects and seminars in cooperation with other departments in the university.

The Academic Skill Seminar offers seminars and supplementary classes for undergraduate students in cooperation with the Learning Support Office, which provides learning support and career consultation for students. One of its programs, the Study Skill Seminar aimed at teaching new students how to take classes and write reports, was held 34 times in AY 2018, with a total participation of 520 students.

The English Tadoku (extensive reading) Marathon is a project enabling students to learn English while having fun. Each participant reads English books at his/her own pace and records the book titles, number of words and other details in the system with the goal of reading one million English words. This improves the motivation of participants, with graphs of the total number of words read and rankings that can be seen at a glance. The total number of participants since the launch of the project in AY 2013 has reached 1,780, with 322 participating in AY 2019. So far, 36 students have read more than one million words. The Central Library, the North Library and the library of the School of Fisheries Sciences have English Tadoku Kyozai (graded English readers) sections to provide an environment where students can start extensive English reading easily and at any time.

The University Library also focuses on information literacy education. It offers education to improve information collection skills through programs such as Introduction to Library Information classes for first-year undergraduate students and the Literature Collection Seminar for third-year undergraduate and first-year master's students.

The library is also active in the digitization of library materials in cooperation with the Accessibility Services Office of the Student Advice and Counseling Center, and had digitized approximately 400 items by the end of AY 2018, to ensure that students who have difficulty in reading due to visual, physical and other impediments have the "right to read."

Such education and learning support activities are also linked with the support for active learning that is emphasized in university education, and provide the support necessary for students to pursue learning by doing their own research and autonomously performing the preparation of reports/theses and other processes. Environments for discussions and joint projects among students, such as the open area and media court in the Central Library as well as the active learning floor and global floor in the North Library, are also available. The library provides support for nurturing students and enabling them to learn and independently solve challenges, while complementing classroom lessons.

Knowledge sharing

Another important role of the library is to preserve the results of the university's education and research activities and broadly share them with society. The Hokkaido University Collection of Scholarly and Academic Papers (HUSCAP), which has been operated since 2006, makes academic papers and other documents written by researchers, graduate school students and other members of the university accessible to the public by making them available online. The number of documents available is approximately 63,000 and the total number of downloads has reached approximately 78 million. "I firmly believe that the library's role as a base of knowledge and a supporter for the accumulation and creation of knowledge will become even more important in the future, considering that the sharing of knowledge as open science will raise the standard of knowledge across society and lead to the creation of innovations," says Ko Hasegawa, Executive Vice President & Director of the University Library.

There is also an attempt being made to establish a system that enables the management and presentation of the university's research data jointly with the National Institute of Informatics. As "it truly represents the enterprising spirit of the Hokkaido University Library, for its contribution as a new open science to the enhancement of knowledge functions that should be provided by the library" according to Hasegawa, expectations for its future development of the system are high. To ensure substantial education and research support, the library staff themselves must improve

"*Karafuto Nayoro Souotona Monjyo* (*Yaenkoro Ainu Monjyo*)" (collection of scrolls containing records of the Karafuto Ainu, replica.)
Also available through the Northern Studies Collection Database (in Japanese only) on the Library website.

Northern Studies Collection reading room of the Central Library.
The collection displayed in this room includes books written by Takeshiro Matsuura, who gave Hokkaido its name.

Media Court in the Central Library.
This open space serves as a place of relaxation for students.

their expertise through exchanges with advanced libraries and other activities. A staff exchange project based on the conclusion of an inter-library exchange agreement has been conducted with the University of Massachusetts Amherst, whose connection with Hokkaido University dates back to the days of Sapporo Agricultural College. The Hokkaido University Library sent staff members to Amherst in 2015, and then invited staff members of Amherst in 2017. Hasegawa has expressed his willingness to provide support that transcends the boundaries between researchers and library staff for further promotion of ambitious research and survey activities by the library staff, such as the survey of advanced cases of university libraries overseas and the launch of a project aimed at the acquisition of research grants.

Also serving as the leader library of the Open Access Committee established in the Japan Association of National University Libraries, the Hokkaido University Library is expected to play a leading role in the promotion of progress in open science and open access by university libraries.

Identity of Hokkaido University

The Hokkaido University Library has a number of precious items in its collection representing the history of Hokkaido, accumulated over the more than 140 years since the opening of Sapporo Agricultural College. It has provided many materials for TV programs and publications. Its collection, including the "Karafuto Nayoro Souotona Monjyo (Yaenkoro Ainu Monjyo)" (collection of scrolls containing records of the Karafuto Ainu) designated as an important cultural asset by the national government in July 2019, the Shinkotoni Tondenhei Village Records designated as a tangible cultural asset by the Hokkaido government, and a number of photos, figures, documents and other materials concerning Hokkaido in the Meiji era, has been displayed in the Library, as well as in the Hokkaido University Museum and Hokkaido University Archives. Digital archiving of these materials is also under way.

"These materials serve as the foundation for the identity of Hokkaido University, along with materials in the Hokkaido University Archives. The role of the University Library is to support this foundation," emphasizes Hasegawa.

Hasegawa, who also serves as the director of the University Archives, has expressed his hope to strengthen the partnership between the University Library and University Archives toward the 150th anniversary of the university's foundation. Compilation of the university's 150-year history, linkage of networks and databases and facilitation of information dissemination in society will be promoted jointly with the Archives. Ways to present the university's knowledge to society are also being sought by using the entire campus as a museum through cooperation among the University Library, Archives, Museum and Botanic Garden.

Entrance of the Central Library, which is usually open until 22:00 on weekdays and 19:00 on Saturdays, Sundays and public holidays.

Together with the local community

Dissemination of knowledge to the local community is not only being carried out through the display of materials. The University Library also holds a variety of events for the general public. In August 2018, Professor Hiroshi Ishii, who is the associate director of the Massachusetts Institute of Technology Media Lab and a graduate of the School of Engineering of Hokkaido University, was invited to hold a workshop entitled "The Future Woven by Digital Archives: Remembering the Future with Prof. Hiroshi Ishii, MIT." At the workshop, digital archive activities of the University Library, Museum and Archives were presented in addition to the lecture given by Professor Ishii. In September of the same year, Emeritus Professor of Tokyo University Motoyuki Shibata, known as a scholar of American literature and translator, gave a special talk entitled "Attraction of 200 years of American literatures" in which he conveyed the allure of American literature through comments on the works of J.D. Salinger, Mark Twain and other writers. Both events attracted many participants from within and outside the university.

The University Library will undertake various initiatives to support the lifelong learning of the general public as a university open to the local community.

Aims of the University Library

With the progress of digitization and sharing of information through networks, academic materials handled by the University Library are expanding from books, magazines and other paper media to electronic books/journals, digital archives and research data. By managing and providing diverse materials based on such changes, the University Library is making efforts to continue serving as a knowledge base that contributes to the training of human resources and advancement of learning. Hasegawa says, "I want to convey the attraction of the library to the faculty members and students of the university, as well as to locals, while maintaining this knowledge base" and adds, "I really just want people to use and enjoy the library."

The University Library is committed to continuing on its path with the history of the university, as a place for learning human knowledge and nurturing creativity.

Automated stacks storage station in the basement of the Central Library.
Approximately 300,000 books are stored here.

Lane collection on the third floor of the North Library.
This room houses the collection of Dr. Harold M. Lane, who taught English in the days of the former Hokkaido Imperial University.

Center for Natural Hazards Research

If the lifeline system of a snowy area is damaged by an earthquake, or if a river is dammed by a pyroclastic flow following a volcanic eruption and thereby causes a flood, what should be done to proceed with rescue efforts and the recovery of livelihood in the stricken area? The Center for Natural Hazards Research has started operations as a base for the prevention and mitigation of complex disasters.

Feature: Nurture

Typhoons, heavy rain, heavy snow, earthquakes, tsunamis, eruptions or other natural disasters may occur consecutively, or cause avalanches, landslides, ground liquefaction, floods, facility damage, traffic hindranc.es or other secondary disasters. Multiple natural disasters causing serious loss of lives and assets as well as damage to logistics and the economy are called widespread natural disaster with multiple hazards. For example, when three typhoons hit Hokkaido in the span of a week in August 2016, rivers overflowed and inundated farmland. At the time of the Tokachi-oki Earthquake in March 1952, drift ice carried by a tsunami caused houses to collapse.

The Center for Natural Hazards Research was established in April 2019 to find ways to prevent and mitigate such widespread natural disaster with multiple hazards. Its predecessor was the Laboratory of National Land Conservation, which was an endowed course of the Research Faculty of Agriculture. At the Center led by its director, Professor Takashi Yamada, 26 members including three full-time teachers and other teachers from the Faculty of Engineering, Research Faculty of Agriculture, Faculty of Science, Faculty of Humanities and Human Sciences and Arctic Research Center get together and engage in R&D, disaster prevention education, provision of technical advice to local governments and other activities.

Widespread natural disaster with multiple hazards cause social problems, such as the collapse of social infrastructure, economic stagnation associated with disturbances in logistics and the outflow of population from the stricken area, in addition to damage caused directly by the disasters. Their influence may not be limited to the stricken area, instead spreading to all parts of the nation and even to the world through supply chains that involve industries in the stricken area. Therefore, the Center addresses research subjects related to a wide range of academic fields, such as public policy and economy, in addition to the elucidation of the disaster occurrence mechanism and the development of disaster-prevention technologies. The ability to externally provide practical disaster prevention and mitigation measures is one advantage of the university having researchers from such varied fields. On campus, General Introduction of National Land Conservation and General Introduction of Risk Management on Sudden Complicated Disasters are included in inter-graduate school classes. Teachers from the Center specializing in different fields take turns giving lectures characterized by multi-faceted approaches. Off campus, the Center conducts outreach activities in cooperation with local governments, including symposiums and site visits to look back on the Hokkaido Eastern Iburi Earthquake and discuss future disaster mitigation and recovery.

Fighting against the threat of widespread natural disaster with multiple hazards together with the local community

Shallow landslides caused by the Hokkaido Eastern Iburi Earthquake on September 6, 2018 (Atsuma Town, Yufutsu-gun, photographed on August 20, 1019).

Preparedness for natural disasters in Hokkaido

Natural disasters are increasingly intensifying throughout the nation. Since Hokkaido has had relatively few large-scale disasters, it has little experience with heavy rain and measures are insufficient in many aspects. It is necessary to make preparations for disaster prevention and mitigation, including the preparation of hazard maps and other activities during normal times, preparation to respond promptly to emergency rescue needs immediately after disasters and planning for recovery and reconstruction assistance based on a long-term vision.

Disaster-prevention efforts are being made by universities and other institutions throughout Japan. In Hokkaido, its vastness and cold climate are important elements when considering disaster-prevention measures. While its vastness is advantageous for agriculture and other key industries, it also poses major challenges, such as securing traffic access from the starting points of rescue missions (e.g., adjoining cities, ports) to the stricken area and overcoming long travel distances. It is also necessary to consider aging and depopulation issues that are progressing at a faster pace than elsewhere in Japan. Maintenance of the mutual assistance ability of local residents is also an issue, as it is necessary until they are rescued after a disaster.

"We have to know our enemies first," says Director Yamada. Combinations of possible difficulties that may be caused by the consecutive occurrence of multiple disasters vary greatly depending on the stricken area's topographical/geographical features and seasons. "It isn't easy to prevent disasters in such varied combinations." According to the director, a realistic approach is to first seek measures for disaster mitigation. A questionnaire survey for all municipalities in Hokkaido was conducted in September 2019. Potential hazards of disasters expected in those municipalities, what residents expect from the university and other findings of the survey are currently being analyzed.

Together with the local community

For the development, dissemination and implementation of disaster prevention/mitigation measures, it is important to cooperate with municipalities and other government authorities, private companies, local residents, mass media and other parties. As activities in normal times, the Center provides consultation services, including referral to experts for the review of Sapporo City's hazard map. Preparations are also being made to dispatch teachers with expertise from the Center as a team to offer advice to local governments from scientific and technical viewpoints in the actual event of a complex disaster. In addition, technical development to monitor the scale of damage early on using artificial satellites and drones is also conducted for mountainous areas that are difficult to access, as it is necessary to collect information to get the full picture of a disaster.

"We want to know what the local community really needs and get the word out about the presence of the Center by responding to such needs," says Director Yamada. Development of guidelines on planning for the mitigation of widespread natural disaster with multiple hazards in cooperation with relevant government authorities is a major goal of the Center. Furthermore, there is a plan to establish a universal model and export it overseas as a disaster-prevention package. The germ of cooperation with local governments and residents is growing steadily toward the outreach of the Center's achievements.

Logo of the Center designed by Associate Professor Takashi Koi.
The logo features rain, wind, snow and seismic waves in mountainous areas (top), meandering rivers and sea waves (bottom) and living spaces (i.e., houses; the square surrounding the CNHR logo and the triangle (roof) on top), snowy Hokkaido mountains on the edge and a black background representing outer space (monitoring from a satellite).

Director Yamada explaining the flow status of collapsed sediment to local residents (Symposium and site tour held jointly with Atsuma Town).

UAV used for disaster investigation and research: Phantom 4 RTK of DJI Co., Ltd.
By communicating with a base station in real time, aerial photo data with location information can be obtained and high-precision topographical data can be created.

Group photo taken after the meeting to report on the results of international internships.

International Internship Program

Provision of Epoch-Making and Practical Career Education

Feature: Nurture

A custom-made education program developed in an attempt to "run after two hares" by combining the dispatch of students overseas with internships. By making the most of the alumni network, the program has grown to foster human resources capable of playing active roles around the world.

In 2016, a new education program was introduced as a result of opinion exchanges between the university and the Hokkaido University Federation of Alumni Association (predecessor of the Hokkaido University Elm Alumni Association). This is an "international internship" program in which students engage in internships for several weeks at the overseas locations of companies and other organizations. This program aims to nurture a high level of professional awareness by enabling students to experience jobs related to their specialties and future career paths as well as to acquire a cosmopolitan outlook and leadership skills in different societies and cultures. Training at overseas locations is provided to undergraduate students in their second and third years and to master's students for two to six weeks during the summer holiday. The number of participating students, which was four (3 locations in 3 countries) in the first year in AY 2016, steadily increased to 19 (14 locations in 7 countries) in AY 2017, 50 (39 locations in 10 countries) in AY 2018 and 73 (49 locations in 14 countries) in AY 2019. The types of business students engage in at overseas locations vary widely, including manufacturing, wholesale/retail, information, consulting, logistics, finance and trading.

Support by alumni

Alumni play an important role in the implementation of the program. Vice President Junji Yamaguchi who is in charge of the program says, "Many of the accepting destinations are global companies and organizations where alumni of the university are members of top management, and the ties among alumni serve to support the program. The program has further expanded and improved in recent years through the alumni network. Alumni are involved in not only finding accepting destinations but also matching between the destinations and students and providing guidance for students. The existence of the program is only possible with the tremendous support received from alumni." The custom-made program was established in cooperation with many alumni, including Visiting Professor Shuhei Inoue who is mainly in charge of finding new acceptance destinations. Although it is a very demanding task to develop plans suited to individual students, countries and companies, knowhow has been accumulated and the organic link between the university and alumni is becoming stronger.

Presentation at the meeting to report the results of international internships. The meeting was attended by approximately 200 participants, including teachers and students of the university, as well as those from cooperating companies and high school students.

Evolving "training" programs

Briefing sessions are held by inviting students twice between January and April. Explanations are given on the destinations, period, content of training, acceptance conditions, expenses and other details, and applications are accepted at these sessions. Then, after the screening of documents and interviews, successful candidates are matched with accepting destinations. Acceptance was limited to students of Nitobe College in AY 2016, but has been expanded to all students of the target years since AY 2017. "As there are many excellent students at Hokkaido University, whether they are part of Nitobe College or not, we want to give everyone an opportunity to apply for the program," says Vice President Yamaguchi. Overseas locations that had only been in Asian countries were expanded to include Finland, Hungary, Australia and Canada in AY 2019, enabling the global-scale provision of diverse programs for students of all twelve undergraduate schools.

Five classes on attitude toward training, corporate research, manners during training, local research and safety education are given between May and July before overseas training. In these classes, students learn the needs of accepting destinations, such as the meaning of accepting trainees for companies and other workplaces and what is expected from trainees, as well as basic knowledge about destination countries, such as their history and relationship with Japan, and potential overseas risks. In the fifth class, students are interviewed individually to confirm their goals and preparation status. Thorough preliminary education is provided to dispatch the students as representatives of the university.

In overseas training, programs based on actual corporate activities are provided with a focus on "assignment setting/solution proposal," "observation, activity experience and problem identification," "provision at manufacturing sites" and other patterns. Teachers do not accompany the students, making it a true on-the-job "training" experience where problem-solving and self-management abilities that students have acquired are tested in an environment with a different language and culture.

Environmental measurement in the surrounding area of a construction site (Cambodia, Obayashi Corporation).

After overseas training, a meeting to report the results of these international internships is held for students to report on their respective learning and work experiences. Many students have said, "finishing the overseas internship gave me increased confidence" or "the experience was highly valuable for my future." Because they have survived in an environment totally different from their own, the feeling of accomplishment is all the more remarkable.

Quality inspection of processed products (Thailand, Sinfonia Technology Co., Ltd.).

To achieve new heights

During the growth of the program through repeated trial and error, challenges in the management aspect have been revealed. One is risk management for students, which is a major issue especially in areas without sufficient networks with overseas. "We are constantly aware of safety and measures to take when something actually happens," says Professor Inoue. It will be necessary to strengthen the flexible support system to keep up with the rapidly changing international situation.

Another challenge is the reduction of financial burden on students. At present, all participants can receive scholarship support from the Hokkaido University Alumni Association and, if they meet the requirements, other scholarships and aid for travel expenses. However, enormous financial burdens may be imposed on students depending on the period and destination of travel, thereby making more substantial financial support necessary.

"There are still problems to solve, but this international internship is an education program that will definitely be a major feature of Hokkaido University. I want students to improve themselves by taking advantage of this program," says Vice President Yamaguchi. This program that has grown thanks to the cooperation of the alumni at its core is training talented professionals who will one day play active roles in the international field.

Guest

Akira Suzuki

University Professor, Professor Emeritus

It has already been ten years since Hokkaido University Professor Akira Suzuki received the Nobel Prize in Chemistry. During this decade, the university has steadily promoted university reform to contribute to the solution of global issues as a base for creation, transmission and demonstration of knowledge. Researchers at the university who lead this reform talked about the present and future of the university with Akira Suzuki who is still active in lecture activities both in Japan and abroad.

Exploring the possibilities of Hokkaido University

Kuroiwa: Today, I'm going to proceed with the discussion under the themes of education, research, and regional contribution, which are the missions of our university.

Progress made towards the internationalization of education

Kuroiwa: First, let's talk about "education." In these times of rapid internationalization, Hokkaido University offers a diverse range of education programs. Dr. La Fay, you are engaged in international education as an advisor to the president. What kind of classes do you usually teach?

La Fay: I teach international exchange subjects where international and Japanese students can take classes

Asato Kuroiwa

Professor, Faculty of Science

Doctor (agriculture). Specializes in biological science. Graduated from the School of Agricultural Science, Nagoya University. After completing the doctoral course of the Graduate School of Bioagricultural Science at Nagoya University, served as a special researcher with the Japan Society for the Promotion of Science (JSPS). Appointed to be a lecturer at the Center of Advanced Science and Technology, Hokkaido University, in 2003. Appointed to current position in 2016. Now promoting public relations activities of the university as Advisor to the President (in charge of the Executive Committee for Public Relations).

Akinori Takaoka

Professor, Institute for Genetic Medicine (IGM)

Doctor (medicine). Specializes in immunology. Graduated from the School of Medicine and completed the doctoral course of the Graduate School of Medicine, Sapporo Medical University. After serving as an assistant professor and lecturer at the University of Tokyo, appointed to be professor of the Institute for Genetic Medicine (IGM), Hokkaido University (current position) in 2007. Served as the Director of the IGM for four years from 2012. Is active in contributing to society through various activities, including lecture visits to kindergartens.

together in English. In group discussions held during these classes, students with different cultural backgrounds and points of view exchange various opinions.

Suzuki: It's very important for both international and Japanese students to raise their levels of cultural understanding.

La Fay: Our program "Nitobe College" is also very appealing.

Suzuki: What is it like?

La Fay: It is a cross-departmental education program offered by Hokkaido University. It aims to give students the ability to play active roles as true leaders in global society by studying overseas and engaging in dialogue with alumni who have extensive international experience.

Suzuki: It sounds intriguing. I would love to be part of that program if I was younger.

Takaoka: It's an outstanding program. All four basic philosophies of the university: "Frontier Spirit," "Global Perspectives," "All-round Education" and "Practical Learning" can be achieved by studying at Nitobe College. It's such a good curriculum that it should be open for all students of Hokkaido University.

La Fay: Since students participate and study in groups with students from other departments, they can engage in discussions transcending the framework of their own specialties.

Takaoka: It's a perfect example of "cross-coupling" of departments.

Suzuki: Japanese students are shy like I was back in the day. It's great that they study earnestly and are very enthusiastic, but they are shy and lack aggressiveness. It's a shame because they are not at all inferior to their counterparts around the world.

Ito: In my lab, graduate students in the doctoral course are sent overseas to study and research for several months. This enables them to communicate freely in English and gain extensive experience.

Suzuki: It's wonderful to give them an opportunity like that.

Ito: It's a real pity that success in job hunting is the ultimate goal of college life for many students.

Suzuki: It's always been like that.

Ito: I don't like the phrase "cost performance." Spending your time at college with the idea of taking as few classes as possible and getting good grades with as little effort as possible seems to be a waste in the long run. I want students to realize that the university can bring them life-enriching knowledge and encounters.

La Fay: I want them to have room to breathe without worrying too much about "cost performance."

Takaoka: It's a problem on the student side, but teachers also need more ingenuity and should consider how to make college life more attractive. They have to provide the proper environment for it.

Suzuki: Having broad-minded ideas leads to the development of creativity. I hope students will make the most of the university's education programs and improve themselves with such ideas.

Toward the future of interdisciplinary research

Kuroiwa: Let's move on to the next theme, "research." The Institute for Chemical Reaction Design and Discovery (ICReDD), for which Dr. Ito serves as deputy director, is one of the world's foremost research projects being promoted by the university. Could you tell us about this project, Dr. Ito?

Ito: It was launched in October 2018 as a project under the World Premier International Research Center Initiative (WPI) of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Partly thanks to Dr. Suzuki, institutes in Japan and other countries have formed a team focused on "chemistry," which is one of the strengths of our university; and are taking on research that merges the three academic fields of computational science, information science and experimental science.

Takaoka: Research styles have changed greatly from the days when Dr. Suzuki was in active service. Twenty to thirty years ago, big discoveries were like treasures which remained hidden and the main goal was to find them. However, now that most treasures have already been discovered, it is important for us to think about how we can connect these treasures to make new discoveries.

Ito: Joint research and diversity are very important.

Takaoka: Exactly. Interdisciplinary research is incredibly important. In that sense, our university has an advantage. Since almost all departments are centrally located on one campus, it is easy to sow the seeds of interdisciplinary research. I hold cross-departmental symposiums to facilitate exchange among researchers. The number of participants is increasing every year, and they are actively exchanging opinions.

La Fay: It's useful for expanding networks of not only students but also researchers.

Suzuki: Hokkaido University is tremendously privileged to have an environment that facilitates the provision of new types of education and effective research. This presents us with a wide range of possibilities.

Kuroiwa: I study the mechanism of how the sex of

Michelle Kay La Fay

Associate Professor, Faculty of Humanities and Human Sciences

Doctor (philosophy). Specializes in religious studies. Graduated from McPherson College (USA). Completed the doctoral course of Hokkaido University Graduate School of Letters. After serving as an associate professor of Hokkaido University of Education, appointed as a specially appointed associate professor of Hokkaido University Graduate School of Letters (present Faculty of Humanities and Human Sciences) in 2014. Appointed to current position in 2016. Promoting internationalization of the university as Advisor to the President (in charge of the Center for International Education and Research).

Hajime Ito

Professor, Faculty of Engineering

Doctor (engineering). Specializes in organic chemistry. Graduated from the Faculty of Engineering, Kyoto University. After completing the doctoral course at the university's Graduate School of Engineering, worked as a assistant professor at Tsukuba University and the Institute for Molecular Science of the Okazaki National Research Institutes. Appointed as an associate professor of the Hokkaido University Faculty of Science in 2002. Appointed to current position in 2010. Conducting world-leading research as the Deputy Director of the Institute for Chemical Reaction Design and Discovery (ICReDD).

animals is determined. Unlike other animals, the sex and gender of humans are closely related. However, since gender is not my specialty, I teach inter-graduate school classes with teachers from humanities departments. Our future goal is the fusion of humanities and sciences in research. This may be possible at our university.

Takaoka: Globalization is necessary, but localization is also crucial. I believe it is vital to go out into the world after solidifying a firm base.

Ito: We can be influenced by reserchers from different fields and gain new ideas by talking with them. We may still be able to find treasures that have remained buried.

Suzuki: I was in the United States for a little over two years, but the research that won the Nobel Prize was conducted exclusively at Hokkaido University. Since I studied for nine years as a student of the School of Science before becoming a teacher, I benefited significantly from Hokkaido University. I want it to be a university that is not only recognized in Japan but also internationally, and one that is capable of making global contributions.

"Pursue your originality making the most of our favorable environment on the campus"

Akira Suzuki

University Professor, Professor Emeritus

Doctor of Science. Graduated from the School of Science and completed the doctoral course of the Faculty of Science of Hokkaido University. Appointed to be an assistant at the School of Science of Hokkaido University in 1959. After serving as an assistant professor at the School of Engineering, appointed to be a professor at the School in 1973. Active in lecture activities both in Japan and abroad even after retiring from Hokkaido University in 1994.

Received the Nobel Prize in Chemistry in 2010 for studies on the Suzuki Cross Coupling chemical reaction for binding between organic materials using a palladium catalyst and a base (1979). Suzuki Coupling has contributed greatly to the development and mass production of familiar products in daily life, such as drugs and pesticides, as well as liquid crystal and organic electroluminescence (EL) essential for IT devices.

Takaoka: I think students and researchers are highly inspired by the achievements of Dr. Suzuki.

Suzuki: I'm very pleased to hear that. I think everyone has a fair chance to win the Nobel Prize. Since Hokkaido University has excellent researchers and students as well as an environment to promote interdisciplinary research, I hope they will pursue unprecedented research.

Significance of the university's existence

Kuroiwa: Let's move on to the next theme, "regional contribution." I want to hear a story from Dr. Takaoka, who is engaged in a unique activity.

Takaoka: I make lecture visits to kindergartens and daycare centers. What inspired me was a report that I came across in 2015 about an international survey on learning achievement levels called PISA* promoted by the Organization for Economic Cooperation and Development (OECD). PISA assesses competencies of first-year high school students in three areas every three years: reading, mathematical literacy, and scientific literacy. In that year, Japan was clearly number one.

Kuroiwa: Japanese high school students have a good understanding of science.

Takaoka: Unfortunately, however, in the survey on the level of interest in science, Japan ranked seventh from the bottom out of about 70 target countries.

Suzuki: You would think they find it interesting.

Takaoka: I view it as the effect of cramming for entrance exams. I think many students learn just to pass exams without having much real interest.
That's why I started going on lecture visits, thinking it would be good to teach impactful and interesting science to four-year-old children who will remember what they learn and still have flexible brains. It is the training of "super-young talents" rather than "young talents."

Suzuki: Are the children interested?

Takaoka: They really are. They are so excited. As they cannot read yet, I show them 70 slides, which you can tell they enjoy from the stars in their eyes.

Suzuki: That's effective!

Takaoka: Part of the significance of our university's existence is based on the extent to which we can contribute to society. I think it is important for university teachers who actually engage in quality education and research to be involved in the education of children.

Kuroiwa: I sometimes teach high school and junior high school students in lecture visits and lab visits, but not children in kindergarten or daycare centers. I think it's a very novel approach.

Suzuki: It's a fascinating effort. I hope this will lead to children entering Hokkaido University in the future.

Encounter with two books

Kuroiwa: What were you like when you were child, Dr. Suzuki?

Suzuki: I've liked mathematics since my childhood. I liked the simplicity of there only being one answer to a question. I wanted to study mathematics in the School of Science and become a math teacher. I think life would have been just as fun if I had followed that path. But a book titled *Organic Chemistry* that I found when I entered university made me decide to change my career path to chemistry.

La Fay: I know that book. It's a very thick one.

Suzuki: It is a very famous book in the United States. All students were studying with this book. Then, after I became a teacher at Hokkaido University, I found a book titled *Hydroboration* at a bookstore. It was a book about how to make organic boron compounds, which are compounds of boron and other organic molecules. I read the book and found it to be very interesting. I stayed up all night to read it. It is actually the only book I have stayed up all night to read in my life. Then, I decided to study under the author, Dr. Brown, and entered Purdue University (Indiana, USA). If I hadn't encountered these two books, I wouldn't have chosen a career in chemistry or received the Nobel Prize.

Kuroiwa: Those are wonderful encounters. I admire your ability to take action and start studying overseas because of a book.

Ito: It signifies Dr. Suzuki's strong will to pursue originality.

Suzuki: It is up to yourself to decide how to pursue originality.

Kuroiwa: Lastly, could you leave us with a message for students?

Suzuki: When I was a student, there were no opportunities to talk to people from other countries unless you were studying overseas. Today, there are many opportunities to communicate with international students. I hope students will value their encounters with others and take advantage of various experiences to make the most of their college life.

Kuroiwa: Thank you very much for today.

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* Programme for International Student Assessment

Refining: Earth and Planetary Science

Leading the next generation of industrial innovation

World's Most Advanced Spectral Measurement Technology

Yukihiro Takahashi

Professor, Faculty of Science

Doctor in Science. Specializes in earth and planetary science. Dropped out of the doctoral course of the Department of Geophysics, Graduate School of Science, Tohoku University. After serving as an assistant, teacher and associate professor at the Graduate School of Science, Tohoku University, he was appointed as a professor of the Faculty of Science of Hokkaido University in 2009 (current position). Further activity as a leading researcher of earth and planetary science is expected in the future.

Remote sensing using the world's most advanced spectral measurement technology

Technology to observe the shape and nature of an object in a non-contact manner from a remote location is known as remote sensing. When an object is irradiated with electromagnetic waves (e.g., visible light, infrared ray, microwave), some or all of the waves are repelled (reflection). The object itself may also emit electromagnetic waves into space. Characteristics of electromagnetic waves reflected or emitted from the object to explore depend on the status of the object or types of materials composing the object. Therefore, it is possible to determine the shape and nature of the object by receiving electromagnetic waves reflected or emitted by the object using a sensor on an artificial satellite, aircraft or vehicle and analyzing their properties.

While remote sensing is applicable in a wide range of fields, an especially important example of application is "the observation of various global environments." By receiving and analyzing electromagnetic waves reflected or emitted from the ground surface, it is possible, for example, to observe sea water temperature and forested areas on a continuous basis and monitor the progress of global warming. By focusing on remote sensing with such characteristics and making use of the world's most advanced spectral measurement technology, Professor Yukihiro Takahashi of the Faculty of Science is addressing the development of technologies for farm crop growth and pest diagnosis using remote sensing.

"I became interested in astronomy when I read a *gakushu manga* (comic book for study). I decided to be an astronomer when I was in the third grade of elementary school," says Professor Takahashi. After graduating from a high school in Chiba Prefecture, he entered Tohoku University. "I decided to enter Tohoku University when I was in junior high school. After entering the university, I became interested in studies of auroras and selected a geophysics laboratory." After that, he entered the doctoral course of the university's graduate school and stayed at the Showa Station in Antarctica for one year as a member of the wintering party of the Japanese Antarctic Research Expedition. He observed auroras there and wrote his thesis based on the data. Professor Takahashi then became a teacher at Tohoku University and encountered a research theme that motivated him to engage in the field of remote sensing. It is a phenomenon called "sprite." In his words, "Thunder is a discharge phenomenon that occurs between clouds and the ground. Sprite is an almost synchronous phenomenon in which the emission of light occurs slightly later above the thunder, at a height of 40 to 90 km. An attempt to observe sprite occurring above the clouds from the sky above using an artificial satellite was planned."

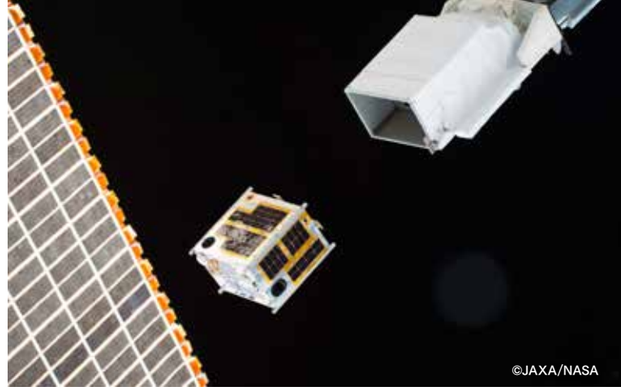
Professor Takahashi began to develop an artificial satellite for sprite observation. "Observation with the first satellite ended in failure, but the second one launched after that succeeded in various challenges. Of those, an achievement worth mentioning is the establishment of high-precision spectral observation technology by developing a camera (sensor) that can scan electromagnetic waves (visible light rays, near infrared rays) in a 1-nm wavelength step width. The camera itself is not especially new, but it was the first one for space in the world and I think its performance is the best in the world in terms of spectral measurement from space," says the professor.

Toward the creation of an innovative remote sensing project

Following his research activities at Tohoku University, Professor Takahashi was appointed to the Faculty of Science of Hokkaido University in 2009. "A teacher who was part of the same lab at Tohoku University moved to Hokkaido University. Since he was going to create a large telescope for observing planets and invited me to take part, I took a post at Hokkaido University," says Professor Takahashi about the course of events. Since his appointment, he has been actively engaging in projects making use of high-precision spectral observation technology from past observations. One such project is the project on "Creation of innovative remote sensing based on spectral library' by utilizing the spectral measurement technology of Hokkaido University," which was adopted as a Regional Innovation Ecosystems Program by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

In this project, accurate spectral measurement is achieved at a super-low cost by combining a spectral measurement method using a portable measuring instrument and a drone with the world's highest-class performance spectral camera on a satellite. By using these, a spectral library that covers combinations of sunshine angle and camera direction will be established to significantly improve the accuracy of farm crop growth and pest diagnosis and increase observation frequency in actual operations.

By considerably improving cost effectiveness in this way, it is expected to be a feasible project. "It is a strategy to improve the quality of solution services by establishing a spectral library for all incident and output angles and realizing a spectral library platform by which data can be obtained by simply pointing the camera at any angle," says Professor Takahashi. He will continue to address the world's most advanced research toward the creation of an innovative remote sensing project by making use of high-precision spectral observation technology.



The moment when DIWATA-1, the first small satellite of the Philippines developed jointly by Hokkaido University and Tohoku University, was launched from the International Space Station (ISS).

Relaxation

A moment with his beloved cat!

Professor Takahashi works at the university away from his family home in Kofu, Yamanashi. Playing with his beloved cat when he returns home on weekends provides a moment of relaxation away from work.

Alumni Interview

Pursuing “Fun” by Valuing His Own Intuition

Creative Power Nurtured by the University’s Liberal Atmosphere and Experience

Tadahisa Fujimura

Executive Director, Hokkaido Television Broadcasting Co., Ltd. (HTB)

| School of Law Graduate |

Mr. Tadahisa Fujimura is the creator of *Suiyo Dodesho* (How Do You Like Wednesday?), a TV program with fans all over Japan. Mr. Fujimura, who continues to actively engage in the production of both DVDs and dramas, talked about his thoughts on work and college days.

I hear you are from Aichi Prefecture. What kind of boy were you?
I liked to bring the whole class together, and served as class president when I was in elementary school. I especially liked play that involved making our own rules, and took the lead in doing so. My childhood friends often say that I’m still doing the same thing.

What was your school life like in junior high and high school?
I played rugby in junior high and high school. I continued to play for six years as I enjoyed being part of a team with members that had different physiques and physical abilities. More than anything, I delighted in the company of diversity.

Why did you enter the School of Law at Hokkaido University?
One big reason is that I couldn’t forget the magnificent scenery I saw during a trip to Hokkaido with my grandfather when I was in elementary school. Since I also agreed with Hokkaido University’s motto, “Boys, be ambitious,” I became interested in Hokkaido and Hokkaido University. I entered the School of Law as I wanted to become a politician that acted as a community organizer, such as the mayor of a city or town.

What do you remember best about your college life?
Many of the seniors from my high school rugby club were at Hokkaido University. They told me to join the rugby club and made me participate in practice from the day after the entrance ceremony. I practiced rugby with teammates from all over Japan, and often went out drinking with them around Kita 24-jo or 18-jo. I ended up repeating a year, but it was the best time of my life.

Why did you join Hokkaido Television Broadcasting Co., Ltd. (HTB)?
One of my seniors from Hokkaido University’s rugby club who had joined HTB asked me to take a part-time job there if I had the time, and I ended up going to various reporting locations carrying a tripod as a camera operator’s assistant. I found the job interesting and took the entrance exam. Come to think of it, it seems my seniors from rugby clubs have determined everything that has happened in my life.

What did you do after joining the company?
I had imagined I would be able to go to various places, but I was first assigned to a department to calculate ratings and money at the Tokyo branch. Although I found being a working adult boring, Tokyo was very convenient for outdoor activities, and I spent all my wages on camping, mountain climbing, canoeing and other activities. I think my experiences from those days were beneficial when I later traveled to different areas for *Suiyo Dodesho*.

How did *Suiyo Dodesho* come to be?
When I was transferred to the Production Department five years after joining the company and put in charge of a program, I made up my mind to make the most interesting show and started *Suiyo Dodesho*. It’s fun if there are little accidents that happen along the way during a trip, isn’t it? So, I thought of a show where accidents would happen while on a trip. However, funny moments don’t necessarily happen even if we try. We don’t know if something will turn out to be funny until we actually do it. In that sense, I’m just having fun where I am and following my instincts. Cast member Yo Oizumi said to me, “This is not a TV program. It’s just filming something about ourselves.” He was probably right.

What do you think about the cast?
Four people of different ages were placed on a team, went to places they wanted to go and had fun using their own words and expressions rather than acting out a script written by someone else. That gained support from viewers. They are like teammates participating in a game who never retire.

The movie you directed, *Channel wa Sonomama!* (Stay Tuned!) won the grand prize in the TV Drama Category of the Japan Commercial Broadcasters Association Award. Congratulations. Was there anything you kept in mind during the production of this movie?
Ensuring I had a correct understanding of the character of Hanako Yukimaru, who is the leading character in the original book, and instilling that on the set. Yukimaru is the kind of person who says, “Sure, I understand” and just starts running with it even if she can’t organize her thoughts, but sometimes breaks through the barriers with passionate action. I guess a person like this is also important. I was constantly saying on set that I wanted to realistically convey this point.

In front of the *Suiyo Dodesho* Festival in Sapporo 2019 display at the head office of HTB.

When do you unwind?
I don’t particularly need time to unwind because work is like my hobby in a way. If I had to answer, however, it’s when I travel on an airplane.

What do you want to do in the future?
Not so long ago, someone from a publishing company recommended that I write a novel, and now I feel like writing. In the future, I want to spend three years writing a book that will win the Naoki or Akutagawa prize.

What was good about graduating from Hokkaido University?
I am really thankful to Hokkaido University for allowing a student like me to run wild on that expansive campus. The ties I made with such a diverse group of people from all over Japan ended up becoming a lifelong asset for me.

Lastly, please leave us with a message to your juniors studying at the university.
I want them to value free thinking. This is a liberal university where the phrase “Boys, are you ambitious?” is in the air. I want them to enjoy their campus life to the fullest by exchanging different opinions while passing on and preserving such liberality and openness.

Inside Mr. Fujimura’s editing room
The shelves are crammed with recorded videos.

PROFILE

Born in Aichi Prefecture in 1965. After graduating from the School of Law of Hokkaido University in 1990, joined Hokkaido Television Broadcasting Co., Ltd. (HTB). After working at the Programming and Administration Department of the Tokyo Branch, transferred to the Entertainment Department of the Headquarters and created *Suiyo Dodesho* (How Do You Like Wednesday?). Won a number of drama awards for *Mieruhi* (Coming Home) (2009) and *Channel wa Sonomama!* (Stay Tuned!) (2019), which he later directed. Currently active as a fellow of the Hokkaido University Faculty of Public Policy and Graduate School of Public Policy.

This issue features contributions from HU Partner Reem AbuKmeil, Technical coordinator of JICA-Palestine Office, and HU Partner Walter Muleya, Lecturer/Researcher of University of Zambia.

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Ms. Reem AbuKmeil

Technical coordinator, Japan International Cooperation Agency (JICA) by February 2020,
Appointed as a Hokkaido University Partner in November 2016

It was a sincere honor to be selected as a HU Partner. I cannot express enough how grateful I am to my supervisor Prof. Naoyuki Funamizu for his solid leadership and support during my stay at HU. Being a HU Partner is a great chance to disseminate my HU story and what I have done after coming back to many passionate young people in my hometown, Gaza, who strive for education having different academic backgrounds.

I am a Palestinian from Gaza. We are eleven in total, six sisters, three brothers and my parents. I got my bachelor's degree in environmental engineering from the Islamic University in Gaza in 2012. I travelled to Japan in April 2013, enrolled in e3 program*, and got my master's degree in environmental engineering from Hokkaido University in 2015. This program succeeded in giving me a break from the monotonous research life by enjoying various events. Such events help me to promote international exchanges between foreign and Japanese students. I acted as a financial manager for the e3 social activities for one year. This opportunity gave me a strong bridge to formulate friendships with many international students. It was a unique experience communicating with different cultures and backgrounds. My stay at HU really felt like home.

I got a position to work for the Japan International Cooperation Agency (JICA) Palestine Office, where I reflect the knowledge and confidence of HU to lead environmental projects in Gaza, Palestine. My education at HU was the reason I became who I am now: confident and realistic. So, from the bottom of my heart, I hope I can help in facilitating many other talented Palestinians to experience the amazing chance of HU, which stands as one of the top universities in the world. I will continuously encourage many young people in Palestine to enroll in graduate studies at HU.

Education at HU empowered me to realize the control and direction I can instill once back in my country. Holding a master's degree in environmental engineering, I was a minority in Gaza. I have been working in a sector that many think I am unable to endure with its kind of work environment. My first big mission was to lead the medical waste management project in Gaza through the JICA-Palestine Office. I was the only female working in this field. I want to change the stereotype of women in the workforce in my community and show that women do well in leading society.

HU is a charming place with magnificent nature. I come from Gaza where it is considered one of the most crowded areas in the world. Once I arrived in Hokkaido, I was absolutely amazed by the power of nature. I heartily consider Sapporo as my second home town.

There are remarkable differences between my current city, Gaza, and Sapporo. As a semi-arid region, in Gaza, we never experience the snow, whereas Sapporo is really cold in winter and very snowy. It was a unique experience for me to enjoy the astonishing Sapporo snow festival each year. My city is located along the coast of the Mediterranean Sea. The terrain of Gaza is flat with the highest point being only 105 meters above the sea level, whereas Sapporo is surrounded by a number of mountains, as well as many rivers. Both Sapporo and Gaza have amazing tastes in sea food, but in Gaza we don't eat raw fish. Sushi in Sapporo has an exceptional taste. It is very fresh and tasty *hontoni oishi*.

I believe learning is the weapon we should equip ourselves with. So, I invite you to explore the many possibilities in the engagement of Palestinian universities with HU.

* **E**nglish **E**ngineering **E**ducation Program: Degree program in English for postgraduate level education to cover almost all fields of engineering. At present, about 250 courses are available in English for 203 students from 43 countries including Japan.

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1. View of Gaza Beach (Credit: Ministry of Tourism & Antiquities, Gaza City by Rashed AlHelou).
2. Graduation Ceremony of Islamic University in Gaza (Credit: Islamic University of Gaza, Palestine).
3. Workshop on the Entrepreneurs Experience in Japan, Gaza 2017.
4. Field Trip to a mine site with the E3 program, Graduate School of Engineering, Hokkaido University.

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Dr. Walter Muleya

Lecturer, Researcher, Biomedical Sciences, School of Veterinary Medicine, University of Zambia,
Appointed as a Hokkaido University Partner in February 2017

It was an honor to be considered a partner for such a prestigious university.

I was born in Kitwe town, Copperbelt province, Zambia. I am the second last born in a family of seven. I have two brothers and four sisters. I am married and have three children. After my undergraduate studies at the University of Zambia, I joined the Faculty of Veterinary Medicine, Hokkaido University in 2009, and I graduated with a PhD in September 2013. Prior to commencing my PhD studies, I also took a certificate course in Zoonosis control at HU.

I came to Japan mainly due to curiosity. I thought Europe would not be so different from my country especially in terms of some culture because Zambia was previously a British colony and have a lot of influence from Europeans. In short, I wanted to have a different experience. Japan was kind of mysterious for me and I was particularly interested in Japanese culture. On top of that, I had always been interested in the Japanese martial arts karate. Before coming to Japan, I had some prior training in karate in Zambia. However the school was different from *Kyokushin* karate which is my current style of preference after I came to Japan.

After graduation, I have been involved in several collaborative projects with HU particularly with the Research Center for Zoonosis Control such as the SATREPS* project and JICA project. I have closely collaborated with Prof. H. Sawa, who was my PhD supervisor. I had been to Nagasaki University's School of Tropical Medicine and Global Health (TMGH) for three months attending a course in public health and global epidemiology. My most recent stay in HU was in 2019 for 3 months. I appreciate the support by the JTS (Japan Science and Technology Agency) and JICA for all of my visits to Japan.

I think HU is a very nice and prestigious university with very wide spaces and very beautiful in spring. Japan is a nice and neat place overall but it required me a bit of time to get used to the cool weather, customs, etc. But, after you get used to Japan and its culture, it becomes a kind of addictive place to live in because we don't have to worry so much about things like crime due to its high safety records.

I would like to continue promoting HU in my country so that many Zambian people may also have the chance to experience what I did while studying at HU. HU produces cutting edge research and is a very attractive place for everyone to study new innovative things.

Sapporo and Lusaka (my current city of residence) are totally different. Lusaka has no snow during winter and only experiences two weather patterns namely; hot and rainy (Oct to April) and cold and dry (May to September). In terms of size and population, Lusaka and Sapporo have similar population sizes however Sapporo, with an area of 1,212 km^2 is larger than Lusaka, whose area is only 418 km^2.

Greetings from Zambia and it is a pleasure to be part of this diverse community. Continue doing what you do best and best regards.

* **S**cience **a**nd **T**echnology **Re**search **P**artnership for **S**ustainable Development. It is a Japanese government program that promotes international joint research which based on the needs of developing countries. The program aims to address global issues and lead to research outcomes of practical benefit to both local and global society.

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1. Entrance to the School of Veterinary Medicine, University of Zambia.
2. 40th Hokkaido Kyokushin Kaikan Karate Championship Tournament (September 2013).
3. Celebrating a student's achievement at a karate examination.
4. Rabies research with a colleague and research partner from Zimbabwe.

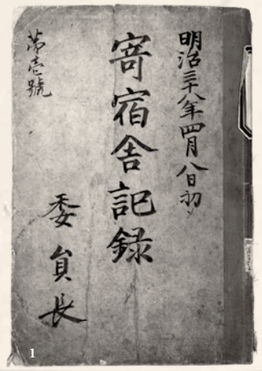
Hokkaido University Archives

140 years of challenge

SCENE-12

1899-1907

Birth of the "*Keiteki-ryo*" dormitory



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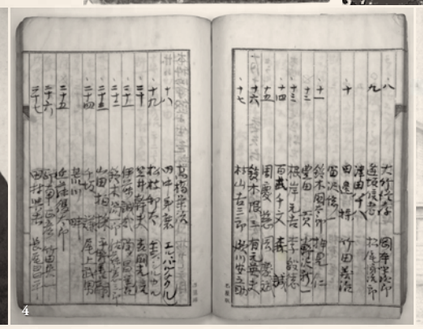
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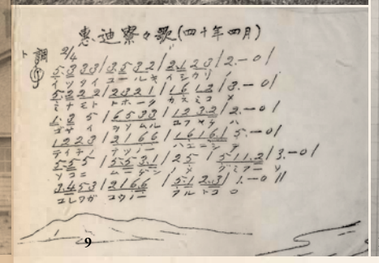

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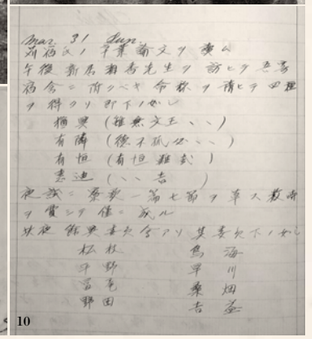
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1. Cover of "Dormitory Records No. 1," April 8, 1905, journal of dormitory affairs by boarding students (1905, University Archives collection).
2. Interior of Room no. 18 of the *Keiteki-ryo* dormitory (1905, University Archives collection).
3. Yoshimaro Tanaka, who wrote the dormitory song *Ittai Yuruki* (1907, University Archives collection).
4. Room arrangements contained in "Dormitory Records No. 2," October 9, 1905 (University Archives collection).
5. Commemorative photo of new boarding students in front of the entrance of the new dormitory (1906, University Archives collection).
6. Photo taken in front of the dormitory to commemorate the holding of the Carlyle workshop mainly by boarding students (1907, University Archives collection).
7. Masanobu Takamatsu, who composed the music of the dormitory song *Ittai Yuruki* (ca. 1907, University Archives collection).
8. *Keiteki-ryo* dormitory as seen from the southwestern side (1908, University Archives collection).
9. Mimeographed sheet music and lyrics of the dormitory song *Ittai Yuruki* distributed to all boarding students ("Records of Dormitory Affairs, June 1906," April 4, 1907, University Archives collection).
10. Diary of Yoshimaro Tanaka "*Mio Shuki II*," March 31, 1907 (University Archives collection).
"*Keiteki*" and other ideas were proposed by Assistant Professor Atsujiro Nii.

Relocation of the dormitory of Sapporo Agricultural College

The campus of Sapporo Agricultural College situated near Kita 1-jo of downtown Sapporo was to be relocated to the area around Kita 8-jo where there was an extensive farm facility of the College. The groundbreaking ceremony for the new college building was held on the new campus in 1899, the building was completed in July 1903 and the campus was relocated. Consequently, the dormitory of Sapporo Agricultural Collage at Kita 1-jo was closed in the same month. A new dormitory building was constructed in the area around the present School of Education and School of Humanities and Human Sciences (near Kita 11-jo Nishi 7-chome) in November of that year, and the opening ceremony was held in April 1905.

The new two-story wooden dormitory was a square building surrounding a courtyard and had its entrance on the west side. The housemaster's office, reception room and night-duty room were on the side of the entrance, and the east side opposite from the entrance housed the cafeteria and kitchen. The parts of the building facing north and south were called the north and south dormitories, respectively, and there were nine rooms each facing the corridors on the first and second floors. Excluding the room of the person in charge of dormitory affairs, cooking committee room, reading room and meeting room, there were 32 residential rooms in total. The dormitory capacity was 132 students. Boarding students in those days spoke very highly of the new dormitory, saying, "If one were to list the benefits of the dormitory, including the convenience for practical training, use of the library, convenience for exercise, not to mention the complete equipment, cleanliness and order in the building, the list would be longer than that of the benefits of medicine." (*Bunbukai* Newsletter, No. 45, May 1905). Unlike the old dormitory that was basically for regular students only, the new one accepted students in the preparatory, civil engineering and forestry courses.

In January 1907, students in the dormitory were invited to come up with a name and song for the dormitory. The following is an excerpt from the diary of Yoshimaro Tanaka (second-year student of the regular course), who played a central role in dormitory management in those days, about the selection process for the dormitory name and song.

Diary of Yoshimaro Tanaka

March 26: Candidate songs and names of the dormitory were presented and referred to the committee by a majority vote.

March 31: We visited Assistant Professor Shoko (Atsujiro) Nii, and asked for potential names for the dormitory, receiving the following four:

猶興 (*Yuko*) (雖無文猶興)
有隣 (*Yurin*) (徳不孤必有隣)
有恒 (*Yuko*) (有恒難哉)
恵迪 (*Keiteki*) (恵迪吉)

I tried to draft a song with seven passage for the dormitory at night. I spent several hours but didn't get very far.

April 2: The dormitory song and name selection committee meeting was held at night. Mr. Otake came a little late. After discussions, it was agreed to choose *Yuko* or *Keiteki* for the dormitory name, but when it came time to choose from the two, there were different opinions and it was not easy to decide. We at last decided to use the name "*Keiteki-ryo*" as *Yuko* is currently used as the name of a group in the national political arena.

The Ishikari River gently meanders through the area. Its distant five colors is the glory of summer in Teine. Infinite grace is there, Autumn prospers amidst wafting yellow sand. Yellow leaves fall field with a roar making elm trees look magnificent. Infinite source is covered in mist. The evening glow in where our college stands. on the expansive ranch. Snow blows across the greatness is there, where our dormitory stands.

We had more difficulties when it came to the song. It was decided to use the song I drafted in advance based on three candidate songs as the outline and make some corrections. Finding good phrases was more difficult than finding pearls. It was impossible to complete one passage even after one hour and Mr. Otake left as it was late. Mr. Takamatsu and Mr. Hayakawa left to start composing music. That left just Mr. Okubo, Mr. Toriumi and myself. We sat and stared at each other without saying anything. Time passed in vain, and even after midnight we had not yet completed the song. We adjourned the meeting to be continued tomorrow.

April 3: In the morning, I worked on the correction of the dormitory song with Mr. Okubo again after last night.

In the afternoon, I met with Mr. Okubo again to work on the correction of the dormitory song and finished it a little later.

In the evening, I worked with Mr. Takamatsu and Mr. Hayakawa on the music of the dormitory song in the music room.

April 4: The music of the dormitory song was completed thanks to the efforts of Mt. Takamatsu and others (the music we made yesterday was changed completely as many were against it).

In the afternoon, I mimeographed the dormitory song (and the sheet music) with Mr. Hayakawa and distributed it to all boarding students.

Determination of the dormitory name and song

For the dormitory name, Assistant Professor Atsujiro Nii, who was in charge of Chinese classics in the preparatory course, proposed four ideas (*Yuko*, *Yurin*, *Yuko* and *Keiteki*) from a book in classical Chinese. Of those, the selection committee of the dormitory decided to name the dormitory "*Keiteki-ryo*." It was taken from a phrase in a Chinese classic titled "*Shokyo* (Book of Documents)," meaning "If you follow the right path, you will gain good results."

Three candidates wrote lyrics for the dormitory. From those, selection committee members mainly worked on polishing up the lyrics written by Mr. Yoshimaro Takaka. Mr. Tanaka's diary shows that they had heated discussions. The music was composed in the same way, and the music once completed had to be significantly modified. The first dormitory song of *Keiteki-ryo*, which starts with the phrase *Ittai Yuruki*, is known to be written by Mr. Yoshimaro Tanaka (lyrics) and Mr. Masanobu Takamatsu (music, fourth-year student of the regular course), but Mr. Takashi Okubo (second-year student of the regular course) and Mr. Jiro Toriumi (third-year student of the regular course) were involved in the fine-tuning of the lyrics and Mr. Naose Hayakawa (first-year student of the preparatory course) helped with composing the music and Mr. Harutaka Otake, who graduated in September of the previous year and newly became an assistant professor at the college, also provided assistance.

The Sapporo Agricultural College dormitory introduced a self-governing system, was relocated to a new building and its name and first dormitory song were selected in those days. Sapporo Agricultural College itself was promoted to imperial university status as the College of Agriculture, Tohoku Imperial University. Boarding students were about to develop their dormitory culture in the new *Keiteki-ryo*. The dormitory song *Ittai Yuruki* is still sung by students in *Keiteki-ryo*, and the building is exhibited at the Historical Village of Hokkaido (Atsubetsu Ward, Sapporo).

Hokkaido University HISTORY 1899-1907

February	1899	Relocation of Sapporo Agricultural College to the Kita 8-jo campus decided.
June	1899	Groundbreaking ceremony for the construction of the new college building on the Kita 8-jo campus.
September	1899	The self-governing system of the dormitory commences.
July	1903	Agricultural College relocated to the Kita 8-jo campus and the old dormitory closed.
November	1903	The new dormitory constructed.
April	1905	The opening ceremony of the new dormitory.
April	1906	The first anniversary ceremony of the opening of the dormitory (Beginning of the dormitory festival).
January	1907	Invitation to name the dormitory and write the dormitory song begins.
April	1907	The dormitory named "*Keiteki-ryo*" and the first dormitory song *Ittai Yuruki* presented.
September	1907	Sapporo Agricultural College promoted to imperial university status as the College of Agriculture, Tohoku Imperial University.

Hokkaido University Archives

This facility collects, classifies and preserves historical documents and records of Hokkaido University. It also conducts investigations and research on its history.

Topics

Establishment of the Hokkaido University Entrepreneurship Development Fund

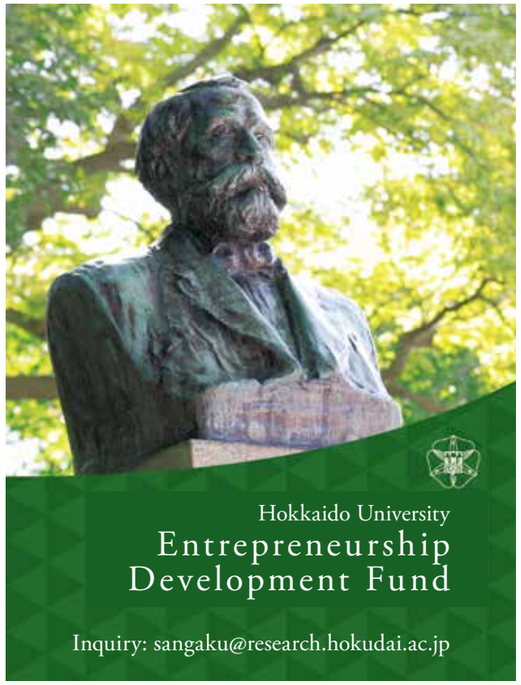
On December 2, 2019, the Institute for the Promotion of Business-Regional Collaboration established the Hokkaido University Entrepreneurship Development Fund as part of the Hokkaido University Frontier Fund to further improve entrepreneur education. The seven founders include Junichi Kaneko (Deputy Director of the Institute for the Promotion of Business-Regional Collaboration) and Chairman Tsutomu Tsuchida of Seraph, Inc. (Tokyo), who graduated from Hokkaido University and is active in fostering and supporting young entrepreneurs.

Hokkaido University is taking part as a collaborative institute in a program (responsible institute: Tohoku University) adopted for the Exploration and Development of Global Entrepreneurship for NEXT Generation (EDGE-NEXT) by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in AY 2017. During the implementation of the program, the university became the first in Japan to introduce DEMOLA, which is a Finnish platform to solve corporate challenges. In addition, a team of students from the university made the remarkable accomplishment of winning the international preliminary round of the Hult Prize (2019), the world's largest entrepreneurship contest, becoming the first Japanese university to do so. The fund was established to continue fostering talents with entrepreneurship skills in the future.

The fund will be used for improvement of entrepreneur education and support of venture businesses from Hokkaido University.

We look forward to your support and cooperation.

01



At the press conference for acquisition of EAEVE accreditation held at the Ministry of Education, Culture, Sports, Science and Technology on December 13, 2019. From left, Acting President Kasahara of Hokkaido University, President Okuda of Obihiro University of Agriculture and Veterinary Medicine, President Oka of Yamaguchi University and President Sano of Kagoshima University.

02

School of Veterinary Medicine, Hokkaido University and School of Cooperative Veterinary Medicine, Obihiro University of Agriculture and Veterinary Medicine acquired the accreditation from the European Association of Establishments for Veterinary Education (EAEVE)

On December 11, 2019, School of Veterinary Medicine, Hokkaido University and School of Cooperative Veterinary Medicine, Obihiro University successfully acquired the EAEVE accreditation for the joint veterinary medicine program between the two schools.

The EAEVE evaluation system ensures the quality and EU's standard of veterinary educational establishments. Veterinary establishments consider this accreditation as an authorized evaluation by the third party organization.

Hokkaido University and Obihiro University of Agriculture and Veterinary Medicine have jointly run the School of Cooperative Veterinary Medicine since AY 2012. Hokkaido University has advanced teaching environment in the fields of companion animals, infectious diseases and life sciences, while Obihiro University of Agriculture and Veterinary Medicine does in the areas of industrial animals and food hygiene. The joint education system provides larger scale education programs which only single school can never achieve. This comprehensive educational system is attracting attention from universities both in Japan and Europe.

Further cooperation is expected for delivering advanced veterinary education at the international standard. The valuable experience we had this time through the EAEVE site visitation would surely contribute to globalized veterinary education of Japan.

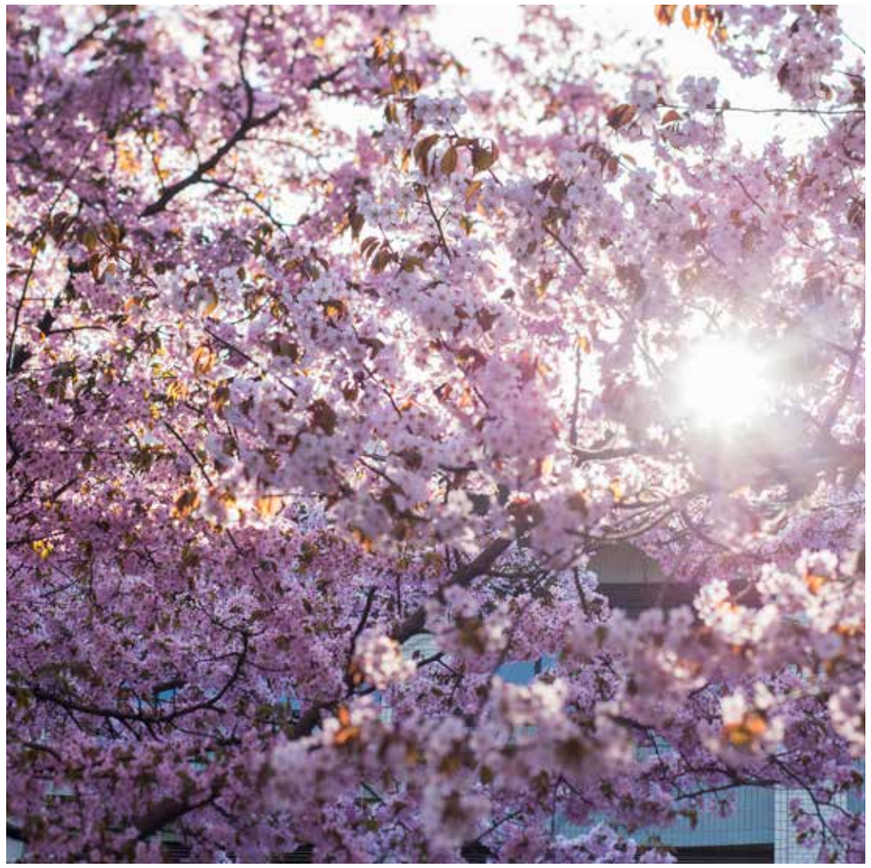
This accreditation is one of the achievements of a collaborative project of four national universities (Hokkaido University, Obihiro University of Agriculture and Veterinary Medicine, Yamaguchi University and Kagoshima University). The Joint Graduate School of Veterinary Medicine of Yamaguchi University and Kagoshima University have also acquired EAEVE accreditation on the same day.

The group photo of the final screening for the EAEVE accreditation conducted by eight veterinarians from European countries. (center in the second row: Executive Vice President Hasegawa, fourth from the right in the second row: Professor Horiuchi, Dean of the School of Veterinary Medicine.)

EAEVE site visitors inspecting the skills lab.

Coming of Spring

Photographer: Akihito Yamamoto



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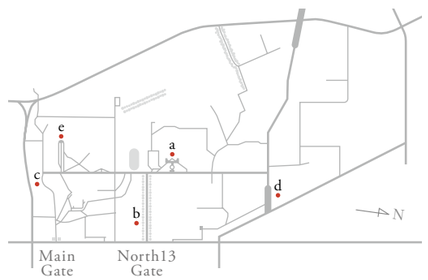
In March when the snow begins to thaw and the arrival of spring feels like it is just around the corner, many students will make their way into society once again this year.

This issue's feature story covered international internships and the efforts of many graduates to train their juniors were once again recognized. Graduates who have just taken a new step will play active roles in society by at times receiving support from their seniors as members of the Hokkaido University community.

In Spring, a new pages open with new students on the nature-rich campus.



a. Graduate School of Engineering
b. Faculty of Pharmaceutical Sciences
c. HU Co-op
d. Community Hall Enyu Gakusha
e. Graduate School of Agriculture

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