Spring 2018

# 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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Public Relations Division
General Affairs and Planning Department
Kita 8, Nishi 5, Kita-ku, Sapporo,
Hokkaido 060-0808, JAPAN
pr@oia.hokudai.ac.jp
https://www.global.hokudai.ac.jp

Edited by the Litterae Populi Planning and Editing Team
Cover photo by Akihito Yamamoto (HARE-BARE SHA-SHINN)
Photos by Hiromi Terashima (Kotoha-sha)
Production assisted by Morikatsu Sato (Morikatsu Sato Design Office)
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# Feature: Nurturing

In 2018, Hokkaido University celebrates the 142nd anniversary of its foundation as Sapporo Agricultural College. During those many years, the university has nurtured its history and traditions, as well as its relationship with society. It also works towards fostering human resources capable of leading its initiatives.

Under the theme of "nurturing," this feature highlights initiatives at three Hokkaido University facilities.

Picture: Ono Pond

# Nurturing Insights into History

# Connecting with People

The Paleobiology Gallery is one of the most popular permanent exhibition rooms at the Hokkaido University Museum.

## Nurturing legacies — The Hokkaido University Museum

Feature: Nurturing

The mission of the Hokkaido University Museum is to preserve the vast amounts of valuable scientific specimens and academic resources it has accumulated over the course of more than 140 years and use them to help create new research horizons. In July 2016, the museum was reopened after a large-scale renovation that took one year and four months. As the museum will celebrate the 20th anniversary of its opening in 2019, it continues to enhance its strong presence.

Einstein Dome has welcomed numerous students and researchers since the early Showa era (1926 – 1989) and continues to greet a large number of visitors as the museum's symbol.

The Hokkaido University Museum is the dark-brown stately building on the left when you head north along the main street in central Sapporo Campus. The museum, opened 19 years ago, houses vast amounts of valuable scientific specimens and academic resources, including plants, insects, rocks and minerals, collected over more than a century since the university's foundation. Previously, many of these specimens had been left ignored in laboratories and corridors. It was not until the 1990s that the importance of storing and managing such specimens and resources drew nationwide recognition and spurred lively debate over the need for university museums. After urging the Ministry of Education, Science and Culture, the seven former Imperial Universities and other time-honored universities established their own museums. Hokkaido University opened its museum in the spring of 1999, following the University of Tokyo, Kyoto University and Tohoku University.

Selected as the perfect location to house the Hokkaido University Museum was the former School of Science main building, a historical structure that had been just vacated following the Faculty's relocation to a new building. When it was built back in 1929, the modern-Gothic style, three-story reinforced concrete building was a splendid sight signaling the arrival of a new era. Today, it is one of the oldest fully reinforced concrete buildings on campus. Opening its grand doors to enter the building, you will find it exudes an air of magnificence. The high, white-ceilinged dome in the center of the building, popularly known as Einstein Dome, has windows around it through which sunlight shines, and the third floor in particular creates an air of openness. The building has been used as a film set several times. This building has enabled visitors to enjoy both the exhibits and historical structure that dates back to the early Showa era.

A major role of the Museum is to organize and store the valuable scientific specimens and academic resources collected over more than 140 years and to catalogue them to prevent them from getting scattered, lost or deteriorating. However, Professor Mitsuhiro Nakagawa, the Museum Director, stresses that the mission of the museum is not just preserving past research materials and specimens, but that it is more important a mission to use them to open up new research horizons. Old specimens may provide new insights through organizing and storing specimens, as shown by the discovery of many new species among old insect specimens. As research methods and instruments advance with the times, new discoveries are made among old specimens, which indicates "the value of preserving specimens and materials from the past for the future," he says.

The Hokkaido University Museum also plays a central role in new research activities. Recent notable research includes a study that led to the discovery of a fossilized Mukawaryu dinosaur skeleton. A joint excavation survey conducted by the museum's Associate Professor Yoshitsugu Kobayashi along with the Hobetsu Museum in Mukawa Town, following indications that a fossil found by an enthusiast might actually be part of a dinosaur, led to the discovery of Japan's largest complete dinosaur skeleton.

## Museum: a center for development

There are several features that set the Hokkaido University Museum apart from other university museums. One is its unique educational programs, including the Museum Meister Course and Graduation Thesis Poster Presentations.

The Museum Meister Course, a certification program launched in AY2009, encourages students to learn and gain experience in various fields through museum activities and coursework. Taking full advantage of the characteristics of a comprehensive university, the course offers an opportunity to study across the fields of science and humanities in line with one of the university's basic philosophies of education and research — all-round education.

The course's curriculum includes lectures and practicums at the museum, in which students plan exhibitions and other projects as well as design museum merchandise. Every year, several students receive the certificate of Museum Meister, and graduates use the experience to play active roles in their respective specialisms.

The Graduation Thesis Poster Presentations are an event for seniors to make poster presentations on their graduation thesis. Explaining one's research in terms that can be understood by local residents visiting the museum is not easy, and students must prepare themselves by learning how to make posters and presentations. The event gives a valuable

The lyrics of the dormitory song "Miyakozo Yayoi" (Twilight on the Ridge of Teine) on the walls of the stairs between the first and second floors draw the attention of visitors.

opportunity for exchanges among students in different fields and also between local residents and ever-developing students.

Opened on the first floor after the renovation, the Exchange of Intellect Hall, which is next to a shop and a café, has an open space where visitors can take a break and students can study. The space is also used as a place for candid exchanges of ideas between students and visitors, where elderly citizens are often seen having discussions with students.

## Museum: bringing people together

The Hokkaido University Museum consists of the Division of Academic Resources and Specimens and the Research Division. The Division of Academic Resources and Specimens plays a key role in organizing, managing and archiving scientific specimens and academic resources, but these tasks are also interrelated with the Research Division. Thus, full-time researchers of the Research Division also engage in specimen preservation and management in addition to their respective studies. What makes the Hokkaido University Museum stand out is the Research Division's Section of Museum Education and Media Studies, where two researchers specializing in museum pedagogy, museology and media studies do research on museum activities and share their research results with society. Additionally, researchers in the Division of Academic Resources and Specimens, who specialize in fields such as the humanities and social sciences, the natural sciences, science and technology, and multidisciplinary northern biosphere research, include teaching staff from other departments of the university, and the staff also liaise and coordinate with their home departments.

In addition to these staff, volunteers also play a pivotal role in running the museum. Currently, the museum has approximately 220 registered volunteers who organize fossil and plant specimens, produce exhibit descriptions and assist with other tasks depending on their fields of interest, hobbies and available time. These volunteers, who are of all ages and backgrounds, including elementary school students and senior citizens, do backyard work essential for the museum. As such, the museum brings people together across generations via common interests and hobbies.


Museum Director Mitsuhiro Nakagawa, who researches fields such as volcanic geology and mineralogy, explains the permanent Mineralogy and Petrology exhibition.

## Attracting one of the largest numbers of visitors among university museums in Japan

The Hokkaido University Museum boasts among the largest number of visitors annually for a university museum in Japan. The free admission could be a factor behind the popularity, but the appealing permanent and special exhibitions are significant factors as evinced by the museum having many repeat visitors. One of the museum's most popular special exhibitions is its dinosaur exhibit, hugely popular with children during the summer holidays. The museum's official branch on the Hakodate Campus — the Fisheries Museum — also provides opportunities for exchanges and hosting special exhibitions. When it held a special exhibition several years ago showcasing the Oshoro Maru training ship affiliated to the School of Fisheries Sciences, children and grandchildren of former crew members and elderly people with experience of boarding the ship gathered together and enjoyed inter-generational exchanges.

Visually compelling full-scale reconstruction of a mammoth appears poised and ready to spring back to life.

Reconstruction of a complete Nipponosaurus dinosaur skeleton discovered by Professor Takumi Nagao of Hokkaido Imperial University (the predecessor of Hokkaido University). Nipponosaurus is the first dinosaur unearthed and named by a Japanese citizen.

It showcased to visitors a "Cutting-edge Hokkaido University." Newly opened exhibition areas show the characteristics and appeal of the university's research institutes and 12 undergraduate schools. Visitors can also observe the inside of the museum's three laboratories (Archaeology Lab, Cosmochemistry Lab, and Fossil Lab), giving an insight into behind-the-scenes activities normally conducted away from the public eye, which Director Nakagawa hopes will inspire high school students to head for Hokkaido University and help guide first-year undergraduates who have not yet determined their career plans. The area featuring the university's top-notch research shows how Hokkaido University continually rises to new challenges to meet the ever-changing demands of society. Currently, it highlights the Global Research Center for Food and Medical Innovation and the Arctic Research Center. The museum also makes efforts to offer hands-on exhibitions to allow visitors to use all five senses to enjoy the exhibits, also making them accessible for people with disabilities.

## Clear vision for the museum

Director Nakagawa's vision for the museum is encapsulated in the Campus Museum Project, which aims to bring together facilities previously separately engaged in the management and preservation of scientific specimens, academic resources and documents under the umbrella name "campus museums" to disseminate research results and information about the university. These facilities include the Hokkaido University Museum, Library, Archives, and Botanic Garden. The idea is that local residents and tourists will enjoy exhibitions and tours even more under common themes.

Director Nakagawa hopes that the Hokkaido University Museum will become the first place people will go to learn more about Hokkaido University, saying: "It would be my pleasure if people will frequent the museum to learn, socialize and unwind." The Hokkaido University Museum connects the past, present and future while nurturing relationships between people.

Reconstructed laboratory of University Professor and Emeritus Professor Akira Suzuki, a 2010 Nobel chemistry laureate, recalls to mind bygone days.

# Driving Social Change with New Personnel


Prior to the official launch of the programs in AY2019, a pilot program has been under way since February 2018 for students who indicated in a needs assessment survey that they would participate in such programs.

## Education and Research Center for Mathematical and Data Science

Feature: **Nurturing**

Hokkaido University is set to offer data science education to help realize a "super-smart society." The tailored educational programs will bring the university even closer to society to foster human resources who will meet society's needs.

Driven by today's rapid development of networking technology and the growing use of cyberspace, new values and services are being created using information and communication technology (ICT) toward the realization of a "super-smart society" that brings affluence to people. However, Japan is facing a serious shortage of workers with ICT skills as shown by an estimate that demand for ICT skills will outstrip supply by 369,000 people by 2020, and Japanese universities afford few opportunities to learn how to do practical data analysis. This means that Japan is confronted with an urgent need to foster human resources with expertise in data science who can analyze and use data. Building a university education system is pivotal in this endeavor.

To enhance education in data science in Japan, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) designated Hokkaido University and five other universities as core institutions in December 2016, and Hokkaido University established the Education and Research Center for Mathematical and Data Science on July 1, 2017.

This center, a joint-use facility with full-time faculty members, will offer a curriculum designed to help students develop the ability to use practical data in their respective specialisms regardless of whether they are in the humanities or sciences. The center's well-designed three-step programs will be offered from AY2019. The General Education Program will offer general data science courses that are open to the entire university. To develop basic skills in mathematical and data science, the existing General Education Course content will be modified as necessary, a new educational system will be introduced, and the course materials will include the latest online content. The Specialized Education Program aims to lay the solid foundations for mathematical and data science through cross-faculty collaborations, offering a total of six subject groups on Basic and Advanced Courses in the life sciences, mathematical and social science fields. The Practical Education Program, a tailor-made program for selected students, offers Practical Courses designed to develop problem-solving abilities that can meet social needs. The course instructors will coordinate with the students' supervisors as students do research and other work toward their graduation. Completion certificates will be awarded to students who successfully complete the course.

The Director of the center, Professor Miki Haseyama, says: "The center's primary mission is to foster human resources capable of taking a data-oriented approach in a wide range of fields. Due to a serious shortage of mathematical and data science experts, there is a pressing need to foster human resources who have a solid grounding and skills in those fields regardless of whether they are in the humanities or sciences. Therefore, the center's major role is to offer courses designed to give students a firm grounding in data science."

### The only core university in Japan north of the Kanto region

The six core universities selected by MEXT for the enhancement of mathematical and data science education are Hokkaido University, the University of Tokyo, Shiga University, Kyoto University, Osaka University and Kyushu University. What is Hokkaido University's strength?

Director Haseyama says that offering mathematical and data science programs that are open to all undergraduates regardless of whether they are in the humanities or sciences is unique. "We aim to create an environment encouraging all students enrolled at the university, approximately 2,500 students, to develop a firm grounding, skills and practical problem-solving abilities in mathematics and data science."

The Practical Education Program is appealing as it provides problem-solving education in line with respective research topics. The program has drawn a high interest from students, as highlighted by a needs assessment survey of all senior students in which more than the expected numbers of students indicated their desire to participate in such a program. The plan is that the program will also be made open to Master's and Doctoral students in the future. The university's strength is that it will offer programs from basic to advanced levels that are tailored to the knowledge and needs of individual students.

The six core universities across Japan have formed a consortium, meeting regularly to strengthen their ties. They are discussing the development of a standard curriculum for data science education, which will be ultimately introduced across Japan. One of the major roles of the university is to build a network of local universities and technical colleges to promote data science education across Hokkaido.

Companies and local governments are also scheduled to join the center's educational programs to allow students to learn how to solve problems using real datasets provided by companies. Such industry-academia collaboration will help students become well-grounded in data science and afford them an insight with which to create innovations down the road. According to Director Haseyama, the center also began looking into the feasibility of admitting business people to the educational programs. She says: "We are also considering admitting business people at the center. Since Hokkaido University is engaged in many research projects jointly with or commissioned by private enterprises, I believe it also has an important role to play in connecting the university with businesses in human resources development to provide solutions to social problems in addition to providing undergraduate education.

Hokkaido University is taking steady steps forward to nurture its relationship with society toward the realization of a "super-smart society."

New learning commons space located in the Education and Research Center for Mathematical and Data Science.

# Hokkaido University Office in the Heart of the Nation's Capital

Feature: Nurturing

The Hokkaido University Tokyo Office is located on the 10th floor of Sapia Tower by JR Tokyo Station's Nihonbashi Exit. The building, taking its name from the Greek "sapience" (meaning knowledge), is home to more than 10 university offices, branches and networking hubs. Relocated from the Takanawa district of Minato Ward in 2007, the Hokkaido University Tokyo Office plays a key role as the public face of the university in the Tokyo metropolitan area.

Sapia Tower (centered) is a gateway to Tokyo.

The Hokkaido University Tokyo Office is a 184-square-meter multi-purpose facility used by as many as 8,000 people per year. Equipped with small and large conference rooms and an open space/lounge, it provides a home base for Hokkaido University faculty, staff members and students in Tokyo free of charge.

The conference rooms are used mainly for gatherings and meetings of Hokkaido University faculty and staff members, but also serve a variety of other purposes for the university: information sessions for students in Tokyo who aspire to pursue graduate studies; entrance examinations for graduate schools; lecture meetings hosted by the Hokkaido University Tokyo Alumni Association; and seminars featuring alumni who are at the forefront of business. The rooms are also used by faculty and staff members to prepare for their visits to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and for work after such visits.

The open space offers almost the same working environment to faculty and staff members as on the Sapporo Campus. It is also used by numerous job-seeking Hokkaido University students, up to 1,000 in peak months, to take a rest, to share information with other job-seeking students after arriving in Tokyo the day before job interviews, or to use the computer terminals to collect information about potential employers and fill out application forms. Many of those students learn about the Tokyo Office by word of mouth from their seniors or other seminar/club members. The Director of the Tokyo Office and Specially Appointed Professor, Hiroyuki Tanaka, believes the office gives students a sense of security since there are also other students from Hokkaido University there.

## Information gathering and strategic PR work

Besides providing multi-function spaces as it has traditionally done, the Tokyo Office has recently enhanced its staff activities. Director Tanaka frequents the government office district several times a week to attend MEXT and other council meetings, information sessions and symposiums in order to grasp and reflect the latest government moves and policies in the university's strategies in a timely manner.

The open space in the office is often filled to its capacity during Japan's peak job-hunting season.

In April 2016, Mr. Hiroki Nakamura was appointed to the newly established, full-time position of Senior Director of the Tokyo Office. Over the two years since the appointment, he has promoted university activities to approximately 200 companies annually to raise its profile in Tokyo.

Promoting Hokkaido University's activities and achievements may attract donations or other forms of support, while introducing faculty members engaged in research areas of interest to companies may provide a foothold for industry engagement. In fact, Mr. Nakamura often takes corporate researchers to the Sapporo Campus to introduce them to researchers there.

"The first step is to let people know that Hokkaido Univeristy has staff in Tokyo's Marunouchi district. The presence of so many companies in Tokyo means that many alumni members also work here. As I still have many contacts to make, I intend to wear my shoe soles thin by visiting one company after another. As the key roles of universities are to foster human resources and engage in research, I hope our work at the Tokyo Office will breathe new vigor into Hokkaido University through the promotion of industrial engagement," says Mr. Nakamura with an uptick of enthusiasm. Hokkaido University's public face in Tokyo works across multiple functions.

The Tokyo Office staff work day and night for the smooth running of the office and are the university's public face in Tokyo.

## Offering an opportunity to explore new horizons

There are still many faculty and staff members who are unaware of this free, conveniently located office with direct access to Tokyo Station. Some first-time users appear amazed to know about the office. As well as serving members of the university community, the Tokyo Office also responds to inquiries from outside, answering telephone questions and attending to visitors who just drop by to ask about entrance examinations, for example. Director Tanaka says they try to respond with sincerity in all cases, including when they don't have answers to inquiries. "We serve as a window to Hokkaido University in Tokyo, so we try not to just ask inquirers to check our university website even if we cannot answer their questions," says Director Tanaka.

"The Tokyo Office mainly assists the university's faculty, staff members, students and other users. The fact of the matter is that we can only give them physical spaces and help them contact people outside of the university. Therefore, it is our hope that the seeds of inspiration this office provides will sprout and bear fruit."

The Tokyo Office more than makes up for Hokkaido University's handicap of being located in Hokkaido, the northernmost island of Japan. As the office sees people coming and going every day, relations between Hokkaido University and society continue to grow.

Guest

# Tsunehiko Iwai

Director, Shiseido Company, Limited

Boasting the largest sales among Japanese and Asian cosmetics manufacturers, Shiseido currently operates in about 120 countries and regions around the world. Since its foundation in Tokyo's Ginza district as Japan's first Western-style pharmacy in 1872, Shiseido has built its own traditions while passing down the founder's desire to discover and create new values. In line with its commitment to making people around the world happy through beauty, Shiseido is committed to making further strides as a "global beauty company from Japan" to continuously grow together with its customers for the next 100 years and beyond.

Dr. Toyoharu Nawa, who will soon celebrate the 1st anniversary of his inauguration as the President of Hokkaido University, asked Mr. Tsunehiko Iwai, Director of Shiseido and a Hokkaido University alumnus, about the philosophy and ethos of the company and his expectations for Hokkaido University among other topics.

Like Hokkaido University alumnus Inazo Nitobe, the "bridge across the Pacific,"

## Always Work for the Good of Japan and for the Good of the World

## Immersed in sports in his school days

**Dr. Nawa:** Without further ado, let me ask where you are from.

**Mr. Iwai:** I was born in Tokyo and raised in the Tama region. I was engrossed in baseball from when I was a second grader to a third-year high school student. When I was in my third year at Tokyo Metropolitan Tachikawa High School, our team made it all the way to the best eight in the Tokyo Metropolitan High School Baseball Tournament both in the spring and in the summer. We were the first metropolitan high school team to make it to the best eight for nine years, and I set a strikeout record.

**Dr. Nawa:** Were you a pitcher?

**Mr. Iwai:** Yes, I was.

**Dr. Nawa:** Did you also join the baseball club at Hokkaido University?

**Mr. Iwai:** No, I hurt my shoulder when I served as a batting-practice pitcher for my juniors while cramming for another entrance examination of the university. The manager of the baseball club at Hokkaido University, who found I had played baseball at high school, asked me to join them immediately after I entered the university, but I turned down the offer.

**Dr. Nawa:** What made you choose to study at Hokkaido University?

**Mr. Iwai:** I had decided to come to Hokkaido because I wanted to live on my own and didn't like hot weather.

**Dr. Nawa:** I see. What kind of activities did you do at university?

**Mr. Iwai:** As I loved sports, I was immersed in skiing for six years in my undergraduate and graduate years. I got a quasi-trainer certification for skiing when I was in my first year in graduate school. I belonged to the Department of Agricultural Chemistry in the Faculty of Agriculture, working in the lab in the morning, skiing in the afternoon and going back to work in the lab until midnight. I often drove to Mt. Teine and Mt. Moiwa to ski with a car I bought only for 15,000 yen.

**Dr. Nawa:** You did lab work after skiing? That sounds tough.

**Mr. Iwai:** It was fun. I had more stamina than necessary.

**Dr. Nawa:** That was typical of Hokkaido University students in the old days, wasn't it? What made you decide to join Shiseido?

**Mr. Iwai:** The Department of Agricultural Chemistry had many labs, including those of nutritional biochemistry, biochemistry, applied mycology, agricultural chemicals and microbiology, and I majored in nutritional biochemistry with a focus on differences in starch structure. My research interest was on chemicals, but I was keen to work for a manufacturer of everyday products. That's why I took an entrance examination for Shiseido. I believe my decision was influenced to no small extent by my mother.

**Dr. Nawa:** May I ask why?

**Mr. Iwai:** My mother, who passed away last year at the age of 96, had long used Shiseido cosmetics, always saying they were good and that all manufacturers should make products the way Shiseido has done. I became interested in sincere manufacturing because of the words of my mother, whose motto was "Make excuses." Most parents would say, "Make no excuses," but my mother always told me to make excuses and explain why I did what I did because there should be reasons for actions taken after careful consideration.

**Dr. Nawa:** That's great. Did many graduates from the Faculty of Agriculture find work at cosmetic companies in those days?



**Mr. Iwai:** Only graduates from the Department of Agricultural Chemistry did. In addition to graduates from the Research Group of Nutritional Biochemistry, to which I belonged, a graduate from the Research Group of Biochemistry found a job at a cosmetic company.

**Dr. Nawa:** Agricultural chemistry covers a wide range of areas.

**Mr. Iwai:** It's an interesting discipline. I may sound rude to you as you're a graduate from the School of Engineering, but I believe the Faculty of Agriculture is what has made Hokkaido University great.

**Dr. Nawa:** Oh, don't hesitate to say that because every graduate should feel proud of their old school.

## Making innovations in the world of manufacturing

**Mr. Iwai:** Upon entering Shiseido in 1979, I was assigned to a laboratory for the study of shampoos and hair conditioners. In the first half of the 1980s, there was innovation in the shampoo market. Old shampoos made your hair feel hard and bristly, but the invention of shampoos containing cationic polymers boosted the conditioning performance of shampoos dramatically, to the extent that the value of hair conditioners was questioned. This prompted us to fundamentally review formulations for hair conditioners, leading to the development of our novel hair conditioner "Protea," which I feel most proud of among all products I was involved in commercializing.

**Dr. Nawa:** What was the idea behind the review?

**Mr. Iwai:** The old type of hair conditioner, which we used by diluting it with water, was made thick by combining cationic surfactants with semi-solid oils that have the properties of oils and an activator. We began to focus on the development of a gel formed by a cationic surfactant and a higher alcohol because gels formed by adding a higher alcohol to give viscosity show stronger binding to the hair. The timing of the review also coincided with the turning point from the dilution-type hair conditioner to the direct-application type.

**Dr. Nawa:** Today, shampoos and hair conditioners perform very well. I use only shampoo, but now I know why I feel like I also used hair conditioner after shampooing.

**Mr. Iwai:** Various discoveries have been made in the field of surface and colloid chemistry, and there are no limits to the application of theories in the cosmetics market. Of course, there are many things still unknown about human skin, and how it feels after the application of cosmetics is also important, which pertains to brain science. All these studies are important for the development of cosmetics. I also remember that during the 10 years in which I was at the laboratory, I also worked on alternatives to chlorofluorocarbons (CFCs) following the discovery about CFCs' depletion of the ozone layer in the upper atmosphere. Thereafter, I shuttled between the Head Office and the laboratory. I requested that I be assigned overseas or to a factory, but that never materialized.

**Dr. Nawa:** Your request wasn't fulfilled?

**Mr. Iwai:** Today, the company has 46,000 employees, so it's increasingly difficult to transfer employees as requested, although now that I'm in a position to make personnel decisions I hope we can accommodate their requests as much as possible. I tell my subordinates to keep asking if they have any requests because they will be kept in records and may materialize someday.

## Shiseido's founding spirit being kept alive and well, and Mr. Imai's thoughts on Hokkaido University

**Dr. Nawa:** What does Shiseido aspire with its corporate message, "This moment. This life. Beautifully"?

**Mr. Iwai:** Shiseido's mission is, "We cultivate relationships with people. We appreciate genuine, meaningful values. We inspire a life of beauty and culture." It encapsulates our commitment to inspiring a life of beauty and a moment of contentment and to responding sincerely to the desire among people to live beautifully. This mission is symbolized by our corporate message, "This moment. This life. Beautifully," which aspires to provide a moment of contentment, safety and security with our products. The message is also a reminder of the fleeting nature of life and the importance of making the most of every moment.

**Dr. Nawa:** It's great to have a corporate message with phrases rather than long sentences, with messages also hidden between the lines. Such a corporate

message stands the test of time and adds depth with time.

**Mr. Iwai:** We also have a set of "values" that we all should keep in mind when we aim to realize our mission and conduct business: "In Heritage, Excellence. In Diversity, Strength. In Innovation, Growth."

**Dr. Nawa:** Another great set of phrases. Having such corporate mottos is a strength of the company because they are reflected in the products the company manufactures.

**Mr. Iwai:** The point is that heritage, diversity and innovation are our three important values. They also embrace the diversity you have told students to value.

**Dr. Nawa:** Shiseido was founded in 1872, several years before the establishment of Sapporo Agricultural College (the predecessor of Hokkaido University). Does Shiseido have a culture or ethos that has been preserved during its long history?

**Mr. Iwai:** Our founder, Arinobu Fukuhara, had been a chief pharmacist in a navy hospital. He studied Western pharmacy and founded Japan's first Western-style pharmacy. In addition to dispensing medicine, Shiseido also manufactured medicine, including Kakkegan launched in 1883 for beriberi, possibly Japan's first vitamin tablet. Fukuhara also opened the first soda fountain in Japan in a corner of Shiseido Pharmacy, using a soda-making machine he found during a tour of inspection he made in the United States. That was how the Shiseido Parlour restaurant opened. His spirit of turning his attention to the world and rising to one new challenge after another has been passed down to the present generation.

**Dr. Nawa:** Where did the name Shiseido come from?

**Mr. Iwai:** It came from a passage in the *Book of Changes*, a Chinese classic. It goes: "Praise the virtues of the Earth, which nurtures new life and brings forth significant values." Our symbolic camellia logo was designed by the company's first president Shinzo Fukuhara. Like the company's English logo, the camellia design has since had a few minor adjustments based on our belief in the ability to adapt ourselves to changes in social values and trends.

**Dr. Nawa:** I can see that the founding spirit is still alive and well more than 140 years after the foundation of the company.

**Mr. Iwai:** Commitment to safety and security is also essential. Quality issues such as data falsifications, which have been occurring frequently these days, will undermine the public's trust in a company. We should take pride in and never compromise on product quality, and this is the least we should do as a manufacturer.

**Dr. Nawa:** The idea is that you must work to ensure safety and security. If not, you'll find your reputation in tatters overnight. I believe such an idea has become widespread in private businesses, but we should tell students and the public that manufacturing products involve responsibility and morals. Before ending this interview, I'd like to ask your thoughts on Hokkaido University.

**Mr. Iwai:** I want Hokkaido University students to pin their hopes on the university as the place where they can turn their dreams into reality. Since they've got a chance to study in Hokkaido, where the vast land helps make people open-minded, I want them to take on challenges with a spirit of independence and a desire for self-improvement without fearing risks. They cannot do such things once they start working in society. I want them to take full advantage of the wonderful environment there to devote themselves to their research and hobbies. I also want them to have candor and always work for the good of Japan and for the good of the world, like Hokkaido University alumnus Inazo Nitobe, a self-proclaimed "bridge across the Pacific."

**Dr. Nawa:** I agree. Working for oneself has its limits due to a lack of motivation. It is thus important to work for the country and for the world.

**Mr. Iwai:** As someone who was an interviewer for the last round of job interviews, I think companies look for students with less-than-stellar grades who are "willing to take on challenges to create a sensation" rather than students with impeccable grades who have devoted themselves solely to study.

**Dr. Nawa:** People with tenacity are an asset to companies particularly when the companies face difficulties. Today's interview has made me realize once again that the mission of Hokkaido University is fostering a frontier spirit in students. To fulfill that mission, we will work to make our university even more appealing.

**Mr. Iwai:** I'm confident that Hokkaido University will create many innovations under your leadership.

**Dr. Nawa:** Thank you for giving us your valuable time today.

Today's interview has made me realize once again that the mission of Hokkaido University is fostering a frontier spirit in students.

– Toyoharu Nawa

I want Hokkaido University students to pin their hopes on the university as the place where they can turn their dreams into reality.

– Tsunehiko Iwai

## Toyoharu Nawa

President, Hokkaido University

Born in 1954 and from Hokkaido, Toyoharu Nawa received his Bachelor's degree at Hokkaido University's School of Engineering and his Master's degree at the university's Graduate School of Engineering. He is a Doctor of Engineering (Tokyo Institute of Technology). He joined the Central Laboratory of Chichibu Cement Co., Ltd. (Taiheiyo Cement Corp.) in 1980 and then worked for the Central Cement Concrete Laboratory of Chichibu Onoda Cement Corp., before being hired as an Assistant Professor by Hokkaido University's Graduate School of Engineering in 1997. He became a Professor in the Graduate School in 2004, before holding the posts of the Dean of the Faculty of Engineering, Dean of the Graduate School of Engineering and Dean of the School of Engineering at Hokkaido University. He has been in his current position since April 2017.

## Tsunehiko Iwai

Director, Shiseido Company, Limited

Born in 1953 and from Tokyo, Tsunehiko Iwai received his Bachelor's degree at Hokkaido University's Faculty of Agriculture and his Master's degree at the university's Graduate School of Agriculture. In 1979, he joined the Shiseido Group and held positions including the General Manager of the Product Commercialization Planning Department, the Chief Officer of the Fine Chemical Division and the General Manager of the Technical Department. He became a Corporate Officer in 2008 and a Director in 2014, before being appointed the Representative Director and Executive Vice President in 2016. He has been the Director since January 2018.

# Refining Taxonomy

## An Encounter with Psocids Leading to the Ig Nobel Prize


Kazunori Yoshizawa

Associate Professor, Research Faculty of Agriculture


A Doctor of Science, Kazunori Yoshizawa specializes in insect taxonomy, morphology and systematics. After receiving a Ph.D. from Kyushu University's Graduate School of Social and Cultural Studies, he served as a Postdoctoral Fellow at the Japan Society for the Promotion of Science (JSPS) before assuming the post of Research Associate at Hokkaido University's Graduate School of Agriculture in 2000. He has been an Associate Professor since 2009. He is an up-and-coming researcher as shown by the awards he has received, such as the Entomological Society of Japan Award in 2013 and the Ig Nobel Prize in 2017.

Psocid specimens measure less than 10 millimeters long, mostly one or two millimeters.


The Ig Nobel Prize certificate Dr. Yoshizawa received. He was unable to attend the Ig Nobel Prize Ceremony held at Harvard University due to a previous commitment to participate in surveying. Public awareness of the prizes, established in 1991, has been growing in Japan.

### Systematic studies on psocids

Not many people would have heard of psocids. This minute insect in the order Psocoptera is unfamiliar even to entomologists as a subject of research. Kazunori Yoshizawa, Associate Professor at the Research Faculty of Agriculture, is engaged in systematic studies on psocids.

Having been fascinated by insects since his childhood, Dr. Yoshizawa entered Kyushu University to study insects at the laboratory of a professor who wrote an illustrated insect book he bought while in high school. Immediately after entering the university, he visited the laboratory and then chose psocids as the subject of his research on the professor's recommendation. Dr. Yoshizawa says he began studying psocids because of what he calls a chance encounter with the research subject rather than his interest in or inquisitiveness about psocids.

This is how he began taxonomic studies on psocids, making his first step forward towards becoming a researcher. He has discovered and named many psocid species to date, and while continuing those studies he is also engaged in systematic studies on psocids through work on their phylogeny and biogeography. Additionally, he also explores the morphology of psocids and various other insects. "My next main research theme following psocids is the comparison of insect wing base structures to explore their phylogenetic significance. With little or no opportunity to attract public attention, none of my research appears ostentatious," says Dr. Yoshizawa with a smile.

### Winning the Ig Nobel in biology

Dr. Yoshizawa continued his low-profile research on psocids, only to find himself thrust into the limelight when a four-member research team including him received the Ig Nobel in biology in the autumn of 2017.

The Ig Nobel Prizes honor achievements that first make people laugh, and then make them think. Dr. Yoshizawa was the second Ig Nobel Prize winner at Hokkaido University following Professor Toshiyuki Nakagaki at the Research Institute for Electronic Science, who received the prize twice for his research on slime molds (in 2008 and 2010, in the latter of which he belonged to Future University Hakodate).

Dr. Yoshizawa's research team was awarded the prize for their discovery of a female penis and a male vagina in a cave insect. The cave insect here is the *Neotrogla*, a genus of Psocoptera, found in Brazilian caves. Males of most species that reproduce by internal fertilization, including humans, have a penis and females a vagina as copulatory organs. Dr. Yoshizawa's team found that females of the genus *Neotrogla* have a penis-like organ with which they penetrate the male vagina. While the female intromittent organ has a highly elaborate structure, the males have a simple genital chamber. Males transfer nutritious seminal capsules to the females during sex, and Dr. Yoshizawa and other researchers surmise that the genital evolution in the females was driven by reversed sexual selection with females competing for the seminal gifts.

Asked how he felt about receiving the Ig Nobel Prize, Dr. Yoshizawa said, "My impression and the appeal of the Ig Nobel Prizes are that they honor research that is not just enjoyable but also involves a slight sense of cynicism, such as the employment of unusual approaches. However, our research for which the prize was awarded is an orthodox taxonomical/morphological study, and it's only that the subject of the research — the *Neotrogla* — was hilarious. In this sense, our research was arguably different from the studies for which the prizes have been awarded to date."

"There are many species where sexual selection has reversed with the males having become pickier about who they mate with, but it is only in the *Neotrogla* that reversed sexual selection has caused the evolution of masculine characteristics to the extent that the females even have a penis. This makes me believe that the evolution was made possible because something had happened in addition to the reversed sexual selection, and I am particularly interested in what the something was. Our discovery had a huge impact, so we will continue our research to elucidate the many unknowns about the insect," says Dr. Yoshizawa with a gleam in his eye.

## Relaxation

### A beer aficionado

Dr. Yoshizawa loves beer. He looks forward to buying beers at local breweries when he travels in Japan and elsewhere for academic conferences or other assignments. The book shelves in the laboratory are lined with bottles of his favorite beers.

Alumni Interview

# Eager to Enhance "Quality of Life" through Sports


## Shuichi Tsuji

Sports Doctor, Eminecross Co., Ltd.

| School of Medicine Graduate |

Shuichi Tsuji provides mental training to maximize individual and organizational performance based on his expertise in applied sport psychology. During the interview, he talked about his life at Hokkaido University and how he began mental training, which is now widely supported by athletes, business people, musicians and many others.

### What made you decide to become a sports doctor?

One day, when I was receiving training in internal medicine at Keio University after graduating from Hokkaido University, I found myself grumbling about how busy I was and felt truly disgusted with myself. At the same time, my wife who saw me exhausted asked me "is it worth it to get promotion?" It turned out to be an opportunity for me to look back on myself. Sometime thereafter, I was totally inspired by the nonfiction film called "Patch Adams." It's about a true story of a doctor whose mission is to improve the "quality of life" of his patients instead of just curing their diseases. It made me think that there is such thing as "quality" in our lives which few of us really care about it. Then, I heard that Professor Hajime Yamazaki of Keio University Hospital was going to launch the Sports Medicine Research Center, so I went to see him and was truly impressed by him as he stressed the importance of lifestyle management and the needs for internal medicine conditioning support in sports medicine. I thought I might be able to get involved with the Quality of Life (QOL) of people ahead of doctors and become a Patch Adams in sports medicine. This is how I chose the career as a sports doctor.

*Suramu Danku Shori-gaku* (Slam Dunk Psychology to Victory), Mr. Tsuji's first book published in 2000, is based on the series published in a basketball magazine. A word of encouragement from Takehiko Inoue, the writer and illustrator of the Slam Dunk comic series, led to Mr. Tsuji's independence and literally transformed his life.

Booklets of the Sports & Culture Forum, interview sessions where Mr. Tsuji serves as the facilitator and intellectuals who are active in various fields share tips and ideas for leading a happy, fulfilling life. The booklet in the middle shows Mr. Akira Takata, the founder of Japanet Takata Co., Ltd.

### What kind of activities have you engaged in since?

While studying sports medicine in general as well as lifestyle management and conditioning support, I reached a conclusion that what ultimately matters is mental toughness. This brought me to the Association for Applied Sport Psychology (AASP) in the United States, the home of many sports medicine specialists, where I saw sports psychologists offering mental training to musicians and providing the National Basketball Association's teamwork training to business people from Wall Street. I found what I had truly loved to do.

I hit on an idea to provide mental training in an easy-to-understand way using the popular Slam Dunk comic series. The office of its author Mr. Takehiko Inoue readily agreed to my request to use the comics, and the new version of the comics were serially published in Basketball Magazine (later published as a book titled *Suramu Danku Shori-gaku*, Slam Dunk Psychology to Victory). Later, Mr. Inoue kindly expressed his enthusiastic support for what I had aspired to do when I met him in person. This encouraged me to decide to work independently.

### Your life has been influenced by people you've met, hasn't it?

I am also deeply indebted to Mr. Akira Takata, the founder of the Japanet Takata home-shopping company. In fact, I cannot talk about my life story without mentioning his name because it was him who asked me to teach mental training at his company immediately after I became independent, when I was still a nobody. That opportunity opened horizons to me to deal with businesses, not just athletes.

### Could you elaborate on your work with businesses?

The idea is not to just prevent employees from becoming ill. Every employee is an asset to a company and the management of their mental wellbeing is essential for a company to succeed as a team, as well as for individual employees to stay fit and make positive behavior changes. Poor mental health management adversely affects business performance and personal relations. Improving mental wellbeing and keeping a positive mind will help prevent cancer, arteriosclerosis and depression, and reduce the risks of infectious diseases. Data shows that people who think negatively are at higher risk for infection than those with positive mindsets.

### You have also established a nonprofit organization called Eminecross Sports World, haven't you?

I believe sport is a culture. It's a cultural activity that brings people joy, excitement, friendship and growth as they play for victory. What I have established is like a "Disneyland of sports" where you can experience the 4 critical factors above while playing various sports.

### Could you share with us your memories from your college days?

I think the greatest thing about going to Hokkaido University was that I learned to feel seasonal changes, which had never come to my mind when I was in Tokyo. Seasonal colors and scents have developed my five senses.

In my college days, I was preoccupied with winning basketball games. I remember playing for the university team against other universities and also getting soundly beaten by the University of Tsukuba in the All Japan Intercollegiate Basketball Championship.

### What is your plan going forward?

My strong will is to make Japan Gokigen (flow mindset) and to make people recognize sports as our cultural activities. I would like to contribute to the introducing of the original sprit or of Japan through the Tokyo Olympics in 2020. I hope more people will view sport as a culture and become positive-minded.

### Finally, do you have a message for current and former younger students of Hokkaido University?

I hope they will live their lives with passion and nurture their strengths in the splendid natural environment of Hokkaido, rather than comparing themselves with others.

PROFILE

Born in 1961 and from Tokyo, Shuichi Tsuji received a Bachelor's degree from Hokkaido University's School of Medicine. After graduation, he received training in internal medicine at Keio University and then worked at the Sports Medical Research Center, Keio University, before establishing Eminecross Co., Ltd. in 1999 to help improve the QOL of people. The Tsuji-method mental training based on his own theory has gained support in a wide range of fields, not just with athletes. V-Varen Nagasaki football club, where Mr. Tsuji has served as a mental toughness trainer since 2017, was promoted to the J1 League (the top division of the Japan Professional Football League) this season. Lectures and seminars which show his enthusiasm are also popular.

# Bridges between Hokkaido University and the Rest of the World

This issue features contributions from Mr. Toru Chino and Dr. Rashid Sumaila, who are active as Hokkaido University Ambassadors in North America.

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## Mr. Toru Chino

(Director, Denali Chino Nature Center in Alaska, appointed as a Hokkaido University Ambassador in September 2016)

Despite my initial lack of knowledge about the details of the Hokkaido University Ambassador and Partner System, I accepted the post of Hokkaido University Ambassador in North America out of a hope that I would help the university expand its global network for the peace and wellbeing of the world. I began by promoting Hokkaido University to the universities, research institutes and government agencies in the United States with which I already had connections.

Looking back on my years at Hokkaido University, the first overseas trip I took when I was in the School of Liberal Arts was a 30-day tour to Europe organized by the Hokkaido University Co-op, and it left a profound and indelible impression on me. So much so that it was then that I decided to work on the world stage in the future. While I was enrolled in the School of Fisheries Sciences, besides playing rugby and skiing with the university's Skiing Race Club, I was engrossed in research on natural and artificial antioxidants using fish oils. The research theme was great for me as I love making things and had to begin with making research devices. I never forget those nights I slept in the lab, and cannot express enough how grateful I am to my supervisor, the late Professor Toru Takagi.

Hokkaido and Alaska are both located at northern extremes: Hokkaido at the northern end of Japan and Alaska in the north of the North American continent. Befitting its status as an international center for Arctic research, Alaska abounds in natural resources worthy of global attention as research themes, such as flora and fauna (e.g., research on polar bears), climate, geology and geological formations (e.g., research on dinosaurs), and human society (e.g., research on the lives and language of the Inuit). All these studies can contribute to the achievement of global sustainability.

I worked worldwide as an environmental engineer and launched a business in the Silicon Valley before moving to Denali in Alaska, where I have run the Denali Chino Nature Center since 2006. The aim of the center is to foster human resources who can contribute to global peace and wellbeing by drawing on experiences they will gain through various activities in the natural splendor of the Denali State Park. The center also serves as a site for fieldwork to develop natural energy technologies that will enable self-sufficient lifestyles also in Japan. In August 2017, the center hosted a group of 12 Hokkaido University students and faculty members with the cooperation of the University of Alaska. It also hosts students from other Japanese universities as part of their study-abroad programs.

I believe the university needs a North American Office to expand its global reach, and will continuously work with the university to open the office in AY2019 as currently planned.

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1. Hokkaido University students and faculty members at the Denali Chino Nature Center. Mr. Chino is third from the left in the back row.
2. Denali Chino Nature Center.
3. Northern lights can be seen over the center throughout the year.
4. The setting sun as seen from an open-air bath in the front yard with Denali (formally Mount McKinley) in the background.

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## Dr. Rashid Sumaila

(Professor, University of British Columbia in Canada, appointed as a Hokkaido University Ambassador in November 2016)

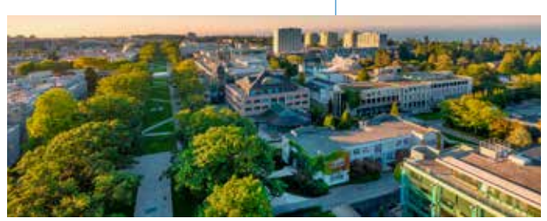
It was a pleasant surprise. I felt honored by the offer to be a Hokkaido University Ambassador because I've visited Hokkaido University several times in the past to attend the international symposium on sustainability science, and for jointly hosting the Nitobe College short-term overseas education program (NCOEP) at the University of British Columbia with fellow Hokkaido University teachers since 2014.

I love coming to Japan and Hokkaido, in particular, during one of my first visits, Professor Masahide Kaeriyama, decided to drive with me from Hakodate to Sapporo by road. I still remember this beautiful drive with stops at hatcheries and laboratories that are doing amazing research. For me, it was really great to get the chance to drive such a distance as it allowed me to have a better feel of the country.

I have been receiving a group of 2nd and 3rd year Hokkaido University students and faculty for the NCOEP at the University of British Columbia for 3 years now. I've therefore come to know the quality of Hokkaido University's programs and therefore felt proud to be associated with the university. I really enjoy this and would like to continue because I believe it is a great opportunity for young Japanese students who want to have a globally-oriented career to get a great start at an early stage.

Sapporo, with an average temperature of -4°C in January is actually colder than Vancouver in winter, with an average temperature of +4°C — may be a surprise to many! The food is different even though Vancouver has an amazing collection of sushi restaurants. Finally, both Sapporo and Vancouver are great modern cities.

I think the Hokkaido University Ambassador and Partner program is a clever way of expanding the reach and visibility of the university worldwide. I expect the launching of the Institute for International Collaboration to enhance Hokkaido University's effort to engage with its communities both domestic and international. You have a fine university and the current path you are charting looks good for the future academic standing of Hokkaido University as a top world university.



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1. Nitobe College student participating in the Global Sustainability Course. Professor Sumaila in the middle of the back row.
2. University of British Columbia Vancouver Campus located at the cape in the west end of the city.
3. Bird's eye view of the University of British Columbia Vancouver Campus.
4. The Martha Piper Fountain (2012 complete) located in the center of Martha Piper Plaza, which is named in honor of Dr. Piper, UBCs 11th President (1997–2006).

Hokkaido University Archives

# 140 years of challenge

SCENE-8

## 1891-1913

## Birth of Seminars


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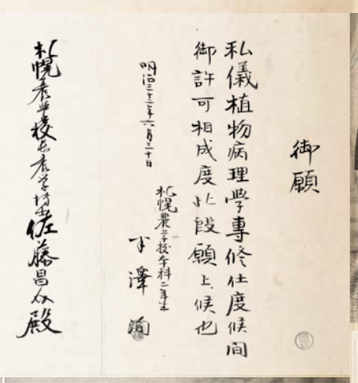
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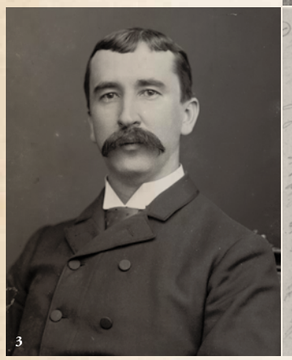
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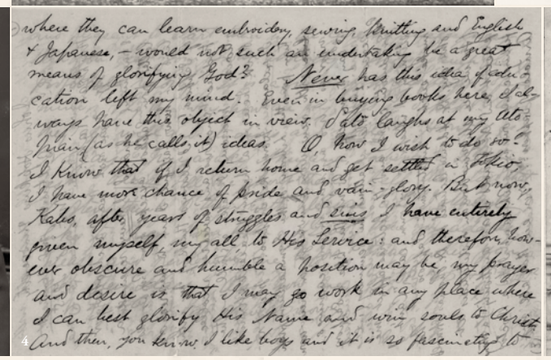
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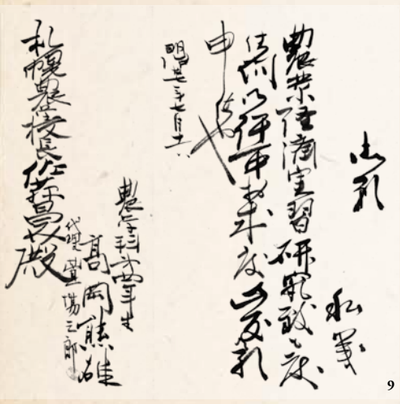
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1. Agriculture faculty members and students. Prof. Takajiro Minami is 2nd from the right in the back row. (1901, Hokkaido University Archives)
2. Vegetable pathology Application for Registration submitted by Jun Hanzawa, 19th graduating class. (1899, Hokkaido University Archives)
3. Prof. H. B. Adams. (U.S. Library of Congress)
4. Inazo Nitobe's letter to Kingo Miyabe. (dated November 13, 1895, Hokkaido University Archives)
5. Inazo Nitobe while at Johns Hopkins University. (1885, University Library)
6. Vegetable pathology faculty members and students. Prof. Kingo Miyabe sits on the far left in the front row. (1895, Botanic Garden)
7. Stock farming students in the Stock Farming Laboratory. (1906, Hokkaido University Archives)
8. Members of the 2nd graduating class of SAC. (1879, Botanic Garden)
From the left in the front row: Inazo Ota (Nitobe) and Kanzo Uchimura. Kingo Miyabe is 2nd from the right in the back row.
9. Agricultural economics Application for Registration submitted by Kumao Takaoka, 13th graduating class. (1894, Hokkaido University Archives)
10. Agricultural economics faculty members and students. President Shosuke Sato sits on the far left in the front row. Prof. Kumao Takaoka sits in the middle-left, Prof. Inazo Nitobe middle-right. (1895, Hokkaido University Archives)

### Academic Career of Inazo Nitobe

A member of the second graduating class of Sapporo Agricultural College (SAC), Inazo Nitobe was an inquisitive student often engrossed in reading. He is known to have read all the English-language literature books, biographies and religious publications in the college library. After graduating in 1881, he worked as an official of the Hokkaido Development Commission's Agriculture and Commerce Department, but his passion for knowledge made him quit the job and enter the University of Tokyo in 1883. However, dissatisfied with classes at the University of Tokyo, he wrote to Kingo Miyabe, also a member of the second graduating class of SAC, on April 20, 1884, that he was sick and tired of college education, adding that he found he could not learn to his heart's content there due to the lack of good teachers even though there were plenty of books. Six months later, Nitobe moved to the United States.

### Professor Adams' "Seminary"

Nitobe entered Johns Hopkins University in Baltimore and wrote how satisfied he was with the classes there in his letter to Miyabe dated November 13, 1885. In particular, a "seminary" had a huge impact on him.

> "Whenever I am impressed by a (graduate) seminary class, I murmur, 'How can I develop a course like this in Sapporo?'"

The seminary Nitobe attended was one offered by history professor Dr. Herbert Baxter Adams. The seminary, popularly known as the seminar (and "Enshu" or "Zemi" in Japanese), refers to a course of study for a small group of students involved in advanced study who meet regularly for discussions under the guidance of a professor. It is a popular form of academic instruction in today's Japan, but in those days it was common for a professor to lecture a large group of students. Professor Adams' seminary in history was attended by approximately 20 students, including a Ph.D. recipient from the Humboldt University of Berlin and a priest with graying hair. Coupled with its German positivist approach to history, the seminary attracted attention in the United States as a new model for higher education. For Nitobe, who was not satisfied with Japanese college education, the seminary represented his encounter with a great mentor and a great school. After the United States, Nitobe studied in Germany before assuming a professorship at SAC in 1891.

### Practical and Fieldwork Course System

At SAC, Assistant President Shosuke Sato, a graduate from the inaugural class, and other officials had just begun to change the faculty from one centered around foreign advisors hired by the Japanese government who had taught major courses to one centered around alumni with specialisms. Nitobe, who himself specialized in agricultural policy and agricultural history, joined the faculty, and took charge of the fundamental revision of the curriculum.

In 1893, SAC introduced a Practical and Fieldwork Course System. Previously, students attended lectures in a common four-year curriculum and received guidance from faculty members in their respective areas of study only for their graduation thesis. Under the new system, students attended lectures on a common curriculum only in the first two years and, from the year, studied a specialized area they selected from five specialisms, which consisted of three Practical Courses (on Agricultural Economics, Agricultural Chemistry and Vegetable Pathology) and two Fieldwork Courses (on Agriculture and Stock Farming). In 1897, Agricultural Zoology was added to the Practical Courses, increasing the number of specialisms to a total of six.

### Birth of Seminars

The introduction of the Practical and Fieldwork Course System made it possible to offer seminaries, which inspired Nitobe at Johns Hopkins University. Nitobe and Shosuke Sato took charge of a seminar in agricultural economics. Kumao Takaoka, a student in the seminar and a member of the 13th graduating class who later became the 3rd president of Hokkaido University, recalled those days as follows:

> "When Sapporo Agricultural College introduced the course on Agricultural Economics, they used a research method known as 'Enshu.' At that time, 'Enshu,' which was translated from the German term 'seminar,' was used for the first time in academia in Japan. Today, it's a widely used and popular term, but at first it was often mistaken for a military exercise…. Seminar topics initially included applied economics, Japanese agricultural history, agricultural statistics and the rice field allocation system….In the fourth year, I was the only student on the course. I was truly fortunate that I could devote myself to my study under the kind and attentive guidance of Shosuke Sato and Inazo Nitobe."

The Practical and Fieldwork Course System and seminars of SAC laid the foundations for the departments and courses of Hokkaido University.

Hokkaido University HISTORY 1891-1913

| | | |
|---|---|---|
| 1891 | February | Inazo Nitobe returns to Japan from the U.S. and Germany. |
| | March | Inazo Nitobe becomes a Professor at SAC. |
| | August | Shosuke Sato becomes Assistant President. |
| | October | SAC curriculum is fundamentally revised. |
| 1893 | July | SAC introduces the Practical and Fieldwork Course System. |
| | September | The courses on agricultural economics, agricultural chemistry, vegetable pathology, agriculture and stock farming are launched. |
| | November | A. A. Brigham, the last foreign advisor invited by the Japanese government, leaves SAC. |
| 1894 | April | Shosuke Sato becomes President. |
| 1897 | July | Course on agricultural zoology is established. |
| 1907 | September | SAC becomes the Agricultural College of Tohoku Imperial University. Courses on agriculture and agricultural chemistry are established. |
| 1910 | September | Courses on stock farming and forestry are established. |
| 1913 | September | The courses are reorganized into Courses on Agriculture No. 1, No. 2 and No. 3; Course on Agricultural Chemistry; Course on Forestry; and Courses on Stock Farming No. 1 and No. 2. Departments are established for each course. |

**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.

01

Diploma presentation from His Majesty King Rama X of Thailand.

# Professor Hiroshi Kida Honored as Person of Cultural Merit

Dr. Hiroshi Kida, University Professor and Emeritus Professor, was designated a Person of Cultural Merit by the Japanese government in 2017.

The Person of Cultural Merit award is the second highest cultural honor in Japan following the Order of Culture, and is awarded to individuals who have made particularly notable achievements for the development of culture. Dr. Kida elucidated mechanisms of the emergence of pandemic influenza virus strains and has long devoted himself to international joint studies to control avian influenza and other infectious diseases. He has made remarkable academic contributions to various disciplines, including veterinary medicine and virology, and played a central role in advancing livestock hygiene, public health and preventive medicine among other fields. This has earned him a high reputation domestically and internationally as an advocate of an epidemiological research model for zoonosis.

The Hokkaido University Research Center for Zoonosis Control, which he established and served as the first Director of, was designated as a WHO Collaborating Centre for Zoonoses Control in November 2011. As the Head of the WHO Collaborating Centre, Dr. Kida is leading global efforts for zoonosis control and is expected to make contributions to education and research as a leader of various research projects.

In recognition of his significant contributions in various fields, he has received numerous awards, including the Order of the Sacred Treasure, Gold and Silver Star in 2017. Also in December 2017, he was awarded an honorary doctoral degree in public health from Thammasat University in Thailand and received his diploma directly from His Majesty King Rama X.

Dr. Hiroshi Kida, University Professor and Emeritus Professor.

02

# Commercialization of the Hokkaido University Gagome Brand Based on Industry-Academia Collaboration

Hokkaido University decided to commercialize the kelp "Gagome Konbu" grown using the seaweed cultivation technology developed by the Faculty of Fisheries Sciences under the brand name "Hokkaido University Gagome," and started selling soap, beauty essence and facial packs containing the "Gagome Konbu" as the first batch of the official Hokkaido University products.

This technology is characterized by a short cultivation period, which is one-third of the period generally required to cultivate "Gagome Konbu." Furthermore, the "Gagome Konbu" produced by this technology contains more than double the amount of fucoidan, which has moisturizing and immunity boosting effects, contained in general "Gagome Konbu."

To promote product development using the university's research results, the Seaweed Utilization Research Society (headed by Hajime Yasui, Dean of the Faculty of Fisheries Sciences) will produce and control the quality of Hokkaido University Gagome, and Hokkaido Marine Innovation Inc., a certified venture company spun off from Hokkaido University, will oversee the operations of the Research Society and ensure the stable supply of seaweed materials while promoting the benefits of seaweed.

Hokkaido University will continue to engage with industry to use research results to serve the public good.

Concerned parties at a press conference for the release of Hokkaido University Gagome products.


Hokkaido University soap commercialized under the Hokkaido University Gagome brand. The products in the photo are for test marketing. The soap is sold at Hokkaido University's Elm Forest Shop and the Nebaneba Honpo shop in Hakodate City.

# A Breath of Spring

Photographer: Akihito Yamamoto

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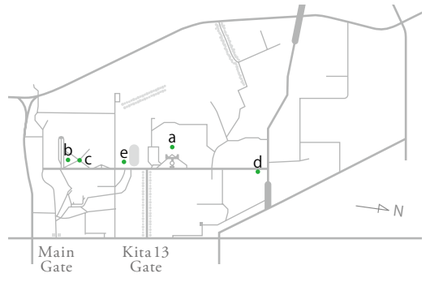
The long winter is finally gone, and frigid winds are gradually being replaced by warm sunlight.

With the thaw brought by the first breath of spring, students full of hope go out into society. And in April, the campus welcomes new students and sees them take a step forward towards their dreams and hopes as their university life begins.

Seeing students come and go, the campus nestled in a rich natural environment will soon be awash with verdant greens.




a . School of Engineering
b . Former Entomology and Sericulture Hall
c . Elm Grove
d . Near North 18 Gate
e . Ono Pond

HOKKAIDO
UNIVERSITY

https://www.global.hokudai.ac.jp/