SAPPORO MEDICAL UNIVERSITY

UNIVERSITY OVERVIEW 2024

Contents

Message from President Yamashita

Toshihiko Yamashita
Chairperson and President
Sapporo Medical University

In 1950, Sapporo Medical University, formerly Hokkaido Women's Medical College, became the first medical university to be opened in Japan under the new educational system established after WWII. We began with only the School of Medicine, but in 1993, we opened the School of Health Sciences, consisting of the Department of Nursing, the Department of Physical Therapy, and the Department of Occupational Therapy. Today, we are a comprehensive medical university with approximately 1,300 undergraduate and graduate students and 1,600 teachers in our two schools. In 2020, we celebrated our 70th anniversary (75 years since our founding) and we has stepped into a new stage with the completion of its new campus in 2022.

Thus far, our School of Medicine has produced about 6,100 graduates, and our School of Health Sciences about 2,500. These people have gone on to play great active roles in fields such as medicine, public health administration, and education–not only across Hokkaido, but throughout Japan and around the world.

Upholding the three basic philosophies of "educating medical personnel with a sense of humanity," "contributing to local medical services" and "promoting international activities and leading-edge research," we engage in education, research, and medical care activities such the ones I will now describe.

In terms of education, we hold our own community healthcare seminars, where students from both of our schools can jointly experience community healthcare. This prepares them to cooperate with other disciplines and contribute to community healthcare in the future. We are also introducing new educational systems such our Clinical Simulation Center and Surgical Training Center.

For the past ten years, our pass rate for the National Medical Practitioners Qualifying Examination has averaged 95%, and we take pride in the fact that our pass rates for the national nursing, physical therapy, and occupational therapist licensing examinations are close to 100% each year.

In terms of research, a spinal cord injury treatment using the bone marrow mesenchymal stem cell-based therapeutic agent developed at our university received conditional and time-limited approval from the Ministry of Health, Labour and Welfare in 2018, and became the world's first regenerative spinal cord medicine covered by national health insurance in May, 2019. Besides this, research to develop a cancer vaccine is proceeding; cancer research is a field in which our university has traditionally been a national leader.

In terms of medical care, our university hospital provides the highest level of advanced medical care in the fields of both internal medicine and surgery. Our surgical departments are producing good results with robot-assisted surgery systems and minimally invasive endoscopic surgery. At our Sports Medical Center, both our schools work together to provide medical care to top athletes and provide medical support to Japanese national team players for international competitions such as the Tokyo 2020 Olympic and Paralympic Games.

Since the pandemic began in 2020, our university hospital has been accepting many corona patients and promoting the use of ECMO therapy for the most severe cases. We are also dispatching staff to public health centers and medical facilities, and have made significant contributions to infectious disease treatment and public health administration in Hokkaido.

In the future, we will focus on building a medical treatment system capable of responding to new infectious disease outbreaks and training medical personnel.

Our fundamental ethos is an "enterprising spirit and a free and lively atmosphere," and "pursuit of the study and practice of medicine, and contributions to community healthcare." We will continue to broaden our global horizons through international exchange, strongly promote advanced basic and clinical research, and apply our results to contribute to community healthcare. Having celebrated our 70th anniversary, we look toward our 100th, and remain committed to promoting the highest level of education, medical care, and research.

Communication Mark of the University

This mark was created to symbolize the "New Sapporo Medical University" in April 2023. In order for the school to continue to develop further in the midst of a drastically changing social environment, faculty, staff and students shared the same goals and reexamined the "future image of the university and what it should aim for" in order to move forward together, and this was reflected in the design.
https://web.sapmed.ac.jp/jp/news/photo/uip2022/communicationmark.html

Fundamental Ethos

- **Enterprising spirit and a free and lively atmosphere**
- **Pursuit of the study and practice of medicine, and contributions to community healthcare**

Founding Principles

We will strive to be a medical university of the highest level.

We will educate medical personnel with strong character.

We will improve medical services for the people of Hokkaido.

We will advance international, leading-edge research activities.

Faculty Code of Conduct

1. We will make contributions to Hokkaido, Japanese society, and the international community through medical and healthcare science.
2. We will strive to achieve the highest levels of research, education and medical care.
3. We will obey laws and regulations, maintaining the highest respect for bioethics, research ethics and social ethics.
4. We will disclose information needed by our local community and society.
5. We will respect human rights, personalities and individuality, aiming to create an environment free from discrimination and harassment.
6. We will firmly respond to antisocial behavior that threatens bioethics and social ethics.
7. We will work to protect, preserve, and improve the local and global environment.

Student Code of Conduct

1. Understand Sapporo Medical University's fundamental ethos and educational policies and comply with all school regulations.
2. Strive to acquire the knowledge and abilities required in the diploma policies drafted by each school faculty, department, research department, and specialty department.
3. Respect the rights, personalities, and individualities of others as members of society, and never adopt words or actions that could lead to discrimination or harassment.
4. Faithfully maintain strict confidentiality and protect the personal information of all patients, personnel connected to clinical training, and students and teachers belonging to the University; pay careful attention to proper information management when sharing on social networks and other platforms.
5. With the understanding that the studies and research activities at this university are entrusted to the school by our society, work diligently at studies and research, while striving to contribute to both local and international society as a student through extracurriculars and other activities.

Medium-Term Goals (Fiscal Years 2019 – 2024)

The Hokkaido government, as the founder of Sapporo Medical University, has established a set of medium-term goals based around the following six fundamental objectives, with the aim of continuing to be a source of pride for the people of Hokkaido, contributing to regional healthcare and maintaining and improving health across the island, under the fundamental ethos of the University.
The University has created a medium-term plan (FY 2019-2024) as a concrete means of achieving these goals.

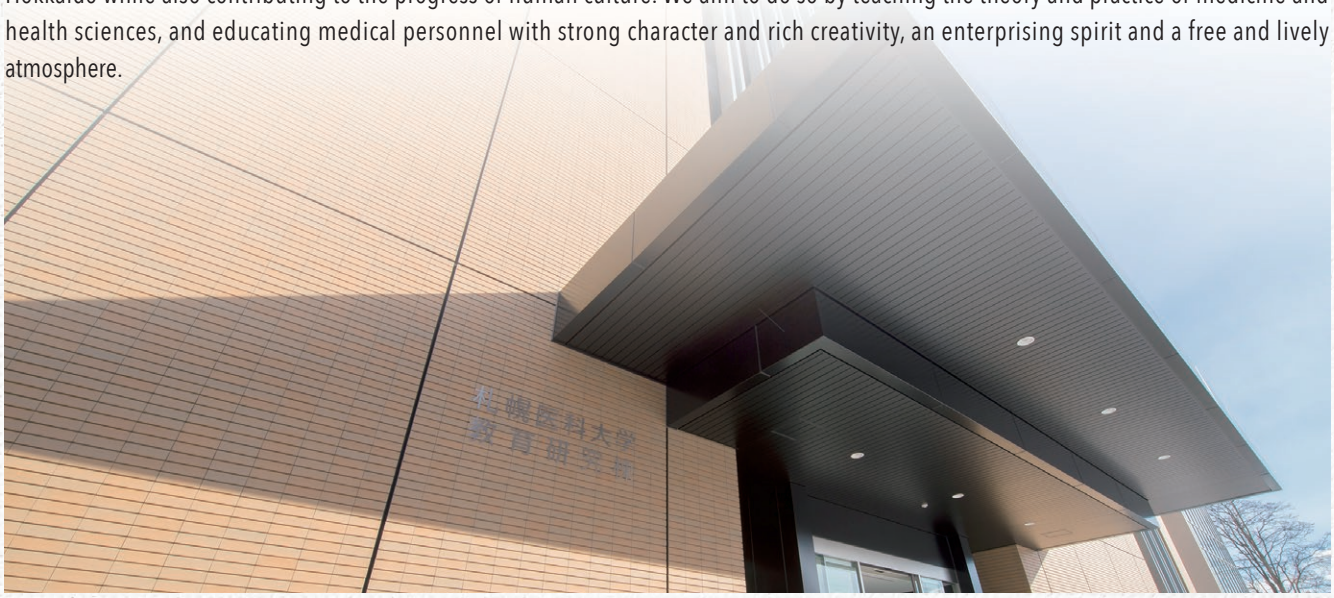
Fundamental Objectives

1. Contribute to regional healthcare by educating medical personnel with strong character and rich creativity.
2. Promote international activities and leading-edge research with an enterprising spirit as we aim to become a top medical university.
3. Fulfil our role as a core hospital in Hokkaido, providing emergency and disaster care, while engaging in the development and provision of advanced healthcare services.
4. Take an active role in guaranteeing a regional healthcare system for Hokkaido through dispatching physicians and others to local communities.
5. Provide information about the latest research and healthcare to the local community, promote cooperation among industrial, academic, and governmental organizations, and strive to share the benefits of our research with society.
6. Contribute to the advancement of international medicine and healthcare through the promotion of international exchanges.

* Details about our medium-term goals, medium-term plan, and annual plans are available at our website. (https://web.sapmed.ac.jp/)

University Aims

Sapporo Medical University aims to contribute to the development of medical services healthcare, and welfare services for the people of Hokkaido while also contributing to the progress of human culture. We aim to do so by teaching the theory and practice of medicine and health sciences, and educating medical personnel with strong character and rich creativity, an enterprising spirit and a free and lively atmosphere.



Number of Employees

Data as of March 1, 2024

		Total	School of Medicine					School of Health Sciences			Center for Medical Education	Graduate Course		University Hospital	Health Management Center	Scholarly Communication Center	Administration	Internal Audit Office
			Faculty of Medicine	Research Institute	Biomedical Research, Education and Instrumentation Center	Animal Research Center	Surgical Training Center	Department of Nursing	Department of Physical Therapy	Department of Occupational Therapy		Graduate Course in Public Health Nursing	Graduate Course in Midwifery					
Academic Staff	Professor	76	45	5				10	5	6	5							
	Associate Professor	63	34	4	1			5	2	4	12					1		
	Lecturer	83	60	2		1		11	4	2	3							
	Assistant Professor	175	153	7				7	3	1	3					1		
	Research Associate	6	1		1			3		1								
	Subtotal	403	293	18	2	1		36	14	14	23					2		
General Staff		198	3	1	7	3								60			122	2
Medical Staff		233		1	6	1								225				
Nursing Staff		826												825	1			
GRAND TOTAL		1,660	296	20	15	5		36	14	14	23			1,110	1	2	122	2

* Includes two trustees who serve as staff members (a professor in the School of Medicine and a professor in the School of Health Science).
* The number of staff members includes reemployed staff and excludes concurrent employees.

Organizational Chart

- **Chairperson (President)**
  - Board of Trustees
  - Education and Research Council
  - Administrative Council
  - Chairperson Selection Meeting
  - Internal Audit Office
- **School of Medicine**
  - **Faculty of Medicine**
    - Department of Basic Medical Sciences (2 Subjects)
    - Department of Clinical Medical Sciences (11 Subjects)
    - Department of Basic Medical Sciences (13 Courses)
    - Department of Clinical Medical Sciences (24 Courses)
  - **Institute of Cancer Research** (2 Departments)
  - **Institute of Regenerative Medicine** (2 Departments)
  - **Institute of Immunology** (2 Departments)
  - **Biomedical Research, Education and Instrumentation Center** (8 Divisions+1 Facility)
  - Animal Research Center
  - Surgical Training Center
- **School of Health Sciences**
  - **Department of Nursing** (3 Courses)
  - **Department of Physical Therapy** (2 Courses)
  - **Department of Occupational Therapy** (2 Courses)
- **Center for Medical Education**
  - Department of Admissions and High School Liaison
  - **Department of Liberal Arts and Sciences** (9 subjects)
  - Department of Educational Development
  - Department of Institutional Research
  - Department of Applied Informatics
- **Graduate School**
  - Graduate School of Medicine
  - Graduate School of Health Sciences
- **Graduate Course**
  - Graduate Course in Public Health Nursing
  - Graduate Course in Midwifery
- **University Hospital**
  - **Clinical Divisions** (29)
  - **Central Clinical Divisions** (23)

- Department of Student Affairs
- Health Management Center
- Department of International Affairs and Medical Exchanges
- Center for Local Healthcare Research and Education
- Scholarly Communication Center
- Community and Industry Collaboration Center
- Funded Departments
- Specialized Study Departments
- Administration
- Biomedical Museum

Number of Students (Quota)

Division		Yearly Admissions	Maximum Total
School of Medicine		110	660
School of Health Sciences		90	360
	Department of Nursing	50	200
	Department of Physical Therapy	20	80
	Department of Occupational Therapy	20	80
Graduate School of Medicine		60	220
Graduate School of Health Sciences		32	72
Graduate Course		30	30
	Graduate Course in Public Health Nursing	15	15
	Graduate Course in Midwifery	15	15
Total		322	1342

Faculty and Administrative Officers

Trustees

Chairperson (President)	Toshihiko Yamashita
Vice Chairperson (Management)	Kazuhiro Suzuki
Director (Education Research)	Tsuyoshi Saito
Director (Education Research)	Masaki Katayose
Director (University Hospital)	Atsushi Watanabe
Director (Finance)	Yuichi Ishida
Auditor	Hiroshi Yamazaki
	Hiroo Takeuchi

School of Medicine

Dean (concurrently) Professor	Professor	Tsuyoshi Saito
Deputy dean		Hiroshi Nakase
		Shingo Ichimiya

• Subject

[Department of Basic Medical Sciences]

Department of Innovative Medical IP Management	Professor	Masaho Ishino
Department of Medical Genetics		Akihiro Sakurai

[Department of Clinical Medical Sciences]

Department of Perinatal Medicine	Professor	Tsuyoshi Saito
Department of Pharmaceutical Health Care and Sciences		Masahide Fukudo
Department of Clinical Pathology		Akiyoshi Hashimoto
Department of Diagnostic Radiology		Masamitsu Hatakenaka
Division of Health Care Management		Akiyoshi Hashimoto
Department of Intensive Care Medicine		Eichi Narimatsu
Department of Thoracic Surgery		Nobuyoshi Kawaharada
Department of Hematology		Masayoshi Kobune
Department of Rheumatology and Clinical Immunology		Hiroki Takahashi
Department of Biostatistics and Data Management		Shiro Hinotsu
Depatrment of Sports Medicine		

• Course

[Department of Basic Medical Sciences]

Department of Anatomy (I)	Professor	Yuki Osaki
Department of Anatomy (II)		Kanna Nagaishi
Department of Physiology		Atsushi Kuno
Department of Systems Neuroscience		Atsushi Kuno
Department of Biochemistry		Motoko Takahashi
Department of Molecular Biology		Hiromu Suzuki
Department of Pathology (I)		Toshihiko Torigoe
Department of Pathology (II)		Makoto Osanai
Department of Microbiology		Shinichi Yokota
Department of Pharmacology		Atsushi Kuno
Department of Hygiene		Nobumichi Kobayashi
Department of Public Health		Hirofumi Onishi
Department of Legal Medicine		Satoshi Watanabe

[Department of Clinical Medical Sciences]

Department of Gastroenterology and Hepatology	Professor	Hiroshi Nakase
Department of Cardiovascular, Renal and Metabolic Medicine		Masato Furuhashi
Department of Respiratory Medicine and Allergology		Hirofumi Chiba
Department of Medical Oncology		Masayoshi Kobune
Department of Neurology		Shin Hisahara
Department of Surgery, Surgical Oncology and Science		Ichiro Takemasa
Department of Cardiovascular Surgery		Nobuyoshi Kawaharada
Department of Orthopaedic Surgery		Atsushi Teramoto
Department of Neurosurgery		Nobuhiro Mikuni
Department of Obstetrics and Gynecology		Tsuyoshi Saito
Department of Pediatrics		Takeshi Tsugawa
Department of Ophthalmology		Hiroshi Oguro
Department of Dermatology		Hisashi Uhara
Department of Urology		Naoya Masumori
Department of Otolaryngology - Head and Neck Surgery		Kenichi Takano
Department of Neuropsychiatry		Chiaki Kawanishi
Department of Radiology		Atsushi Teramoto
Department of Anesthesiology		Michiaki Yamakage
Department of General Practice		Yoshihisa Tsuji
Department of Infection Control and Clinical Laboratory Medicine		Satoshi Takahashi
Department of Emergency Medicine		Eichi Narimatsu
Department of Oral Surgery		Akihiro Miyazaki
Department of Rehabilitation		Satoshi Takahashi
Department of Plastic and Reconstructive Surgery		Takatoshi Yotsuyanagi

• Institute of Cancer Research

Department of Cell Science	Professor	Takashi Kojima
Department of Medical Genome Sciences		Takashi Tokino

• Institute of Regenerative Medicine

Department of Tissue Development and Regeneration	Professor	Shingo Ichimiya
Department of Neural Regenerative Medicine		Osamu Honmo

• Institute of Immunology

Department of Human Immunology	Professor	Shingo Ichimiya
Department of Molecular Medicine	Associate Professor	Yuji Sakuma

School of Health Sciences

Dean	Professor	Masaki Katayose
Deputy dean		Keiko Masaoka
		Keigo Taniguchi

• Department of Nursing

Department manager	Professor	Miki Konno
First Division of Nursing		Masami Horiguchi
		Toru Mizuguchi
		Shiho Akihara
		Masuko Sumikawa
Second Division of Nursing		Keiko Masaoka
		Michiyo Hirano
Third Division of Nursing		Miki Konno
		Masaya Tanno
		Masumi Hasegawa
		Izumi Sawada

• Department of Physical Therapy

Department manager	Professor	Kota Watanabe
First Division of Physical Therapy		Keigo Taniguchi
		Kazuhiro Sugawara
Second Division of Physical Therapy		Masaki Katayose
		Hirofumi Matsumura
		Kota Watanabe

• Department of Occupational Therapy

Department manager	Professor	Yasuhito Sengoku
First Division of Occupational Therapy		Mariko Nakamura
		Hisaaki Ota
		Masaki Saito
Second Division of Occupational Therapy		Yasuhito Sengoku
		Nozomu Ikeda
		Takao Ishii

Center for Medical Education

Director	Professor	Ayako Sumi
Deputy Director		Masaki Sugimura

• Department of Admissions and High School Liaison

Department Chief	Professor	Makoto Osanai
Deputy Department Chief		Akihiro Sakurai
		Masaki Saito

• Department of Liberal Arts and Sciences

Department Chief	Professor	Yasushi Sasaki
[Liberal Arts Subject]		
Philosophy/Ethics	Associate Professor	Syuku Funaki
Psychology		Yoshinobu Takahashi
Law/Sociology		Toshihiko Hatate
English	Professor	Kaori Sasaki
Exercise Science		
Physics	Professor	Ayako Sumi
Chemistry		Akiko Shiratsuchi
Biology	Professor	Yasushi Sasaki
Mathematics and Information Science	Associate Professor	Toshio Oyanagi
		Kenichi Kamo

• Department of Educational Development

Department Chief	Professor	Masaki Sugimura

• Department of Integration Institutional Research

Department Chief	Professor	Yoshihisa Tsuji

• Department of Applied Informatics

Department Chief	Professor	Yasushi Sasaki

Graduate Course

Dean	Professor	Masaki Katayose
Graduate Course in Public Health Nursing		Michiyo Hirano
Graduate Course in Midwifery	Professor	Keiko Masaoka

Educational Policy

Diploma Policy

The School of Medicine confers degrees upon students who have earned the required credits and fulfill the following requirements:

1. Moral values, social responsibility and professionalism (attitude)
Students must have a str ong sense of morality and social responsibility; they must consider patient perspectives with a sense of mission as medical professionals, and be capable of making lifelong contributions to medicine and healthcare with a passion for research.

2. Contributions to community healthcare, research and international society (interest & motivation)
Students must have a wide perspective and develop the motivation to play an active role in community healthcare; they must contribute to international medical science and care with an interest in pione ering research.

3. Fundamental medical knowledge and skills, and communication ability (knowledge & skills)
Students must acquir e fundamental medical knowledge and skills; they must be capable of practicing medical care, health guidance and medical research with cooperativeness and leadership.

4. Ability to solve problems and identify issues (thought & judgment)
Students must be able to identify potential problems with the status quo and solve these problems themselves through logical thought based on scientific evidence and appropriate methods.

Curriculum Policy

In order to achieve the goals of the diploma policy, our educational curriculum is organized based on the curriculum policy outlined below:

1. Moral values, social responsibility, and professionalism (attitude)
-Cultivate the character necessary for medical professionals to keep up with advancements in the ever-diversifying fields of medical science and healthcare and continue lifelong study to respond to the changing needs of society.
-Provide education that incorporates seminars by role models and practical training in society so students learn understanding and empathy for those with different backgrounds and the disadvantaged.
-The curriculum is arranged with a focus on connections between course subjects, including liberal arts, basic medical sciences, and clinical medical sciences, in order to allow students to consider health and illness from the perspective of the humanities, and understand the complex nature of illness in society.

2. Contributions to community healthcare, research, and international society (interest & motivation)
-Organize joint training programs in order for students to understand the social circumstances and social and legal systems surrounding patients and their families, and community-based clinical training programs to educate personnel who can contribute to community healthcare.
-Provide an environment and opportunities to understand the problems that require research and increase self-motivation and passion to contribute to pioneering research.
-Deepen understanding regarding current issues in international medical care and the various ways to contribute to international society.

Research activity

3. Fundamental medical knowledge and skills, and communication ability (knowledge & skills)
-Provide opportunities to systematically acquire the knowledge and skills in specialized fields that are necessary for medical practice or health guidance, and to practice the knowledge and skills the students have learned.
-Support extracurricular activities and social activities to cultivate leadership, and promote interdisciplinary respect, empathy, and cooperation.

4. Ability to solve problems and identify issues (thought & judgment)
-Promote active study, including through problem-based learning tutorials and team-based learning, and provide education with a focus on the process and results of self-directed learning and self-assessment in the Basic Medical Science Training program and the Clinical Medical Science Training program.
-Establish an environment for self-directed learning through identifying and solving problems, with consideration for not only personal factors but also social problems as causes of illness.

Admissions Policy

Our ideal student:

Sapporo Medical University School of Medicine aims to protect the health and medical care of the people of Hokkaido, and to educate physicians who can contribute to community regional and international medical care and researchers who can contribute to the world through international and advanced research.

We seek students who have the following abilities and qualities in order to nurture physicians with a heart to respect life and a passion to save the sick.

[Knowledge and Skills]

1. Has high level of basic academic skills in various subjects studied in high school and other schools, and a strong desire to learn.
2. The ability to think and act from an international perspective, and to engage in lifelong learning with scientific inquiry and creativity.

[Ability to think, judge, express]

1. Has an interest in and understanding of a variety of phenomena.
2. Can think logically based on knowledge and information obtained by themselves.
3. The ability to express themselves orally and in writing as required for communication.

[Attitude of learning with independence and collaboration with diverse people]

1. Can work proactive and self-motivated.
2. Can strive to understand the ideas of others and are able to build good relationships in cooperation with people of diverse attributes.
3. Can act sensibly in accordance with the laws and morals that must be observed in social life.

SD and SSD Badge Awarding Ceremony

New Student Program

Lecture on Pathology

Curriculum

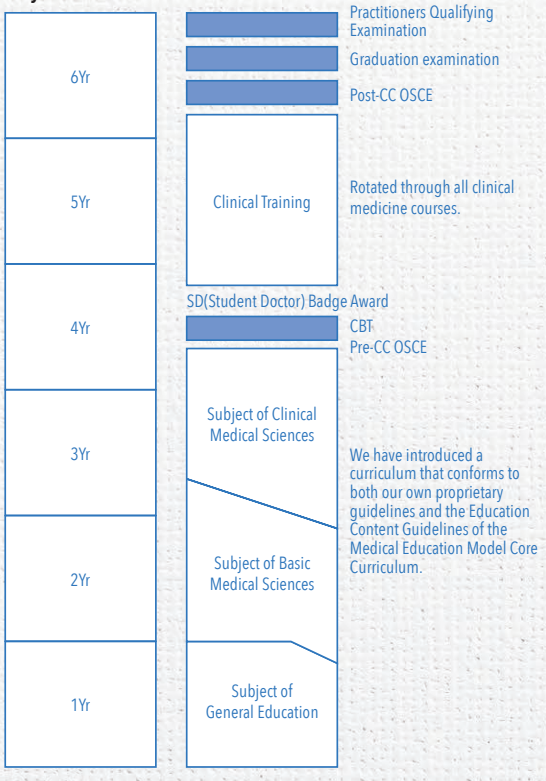
The School of Medicine focuses on training doctors with strong character who can respond to the needs of society and creating an environment for medical education which motivates students to contribute to local and international healthcare.

Medical schools nationwide will be subject to evaluation for accr editation under the Global Standards for Quality Improvement of Medical Education by 2023 and universities are required to reform their medical education programs to meet the standards. Our School of Medicine created an education program that meets th e assessment standards of the Good Practice Program promoted by the Ministry of Education, Culture,

Sports, Science and Technology for the improvement of university education, and operates its Community-based Comprehensive Clinical Training Program as part of that project.

In addition, new curriculum using outcome-based education (OBE) was introduced for new students beginning in the 2020 academic year, aiming to cultivate the basic qualities and abilities required by physicians and medical scientists, while providing more clinical training opportunities. We focus on constant improvement of medical education.

• 6year Curriculum



Career Development Support for Medical School Students

The School of Medicine has created special admission quotas, namely the Advanced Education and Training Opportunities Program for Medical Students (ATOP-M) and Special Quotas, under which students are required to participate for a set period of time after graduation in a program that contributes to community healthcare services (the Postgraduate Compulsory Program).

The school also has established the Career Development Support Committee for Medical School Students organized jointly by the School of Medicine, Center for Medical Education/Department of Admissions and High School Liaison, Clinical Training Center, Department of Student Affairs, and other units to support the career development of all medical school students.

This committee plays a central role in enriching the student support system. The committee holds briefing sessions using booklets that provide students with information about model programs for each treatment department through which students can obtain specialist qualifications or degrees while engaged in the Postgraduate Compulsory Program after graduation. It also provides career development consultation and other services.

Academic Staff Organization

Courses	
Department of Basic Medical Sciences	
Department of Anatomy (I)	Department of Pathology (II)
Department of Anatomy (II)	Department of Microbiology
Department of Physiology	Department of Pharmacology
Department of Systems Neuroscience	Department of Hygiene
Department of Biochemistry	Department of Public Health
Department of Molecular Biology	Department of Legal Medicine
Department of Pathology (I)	
Courses	
Department of Clinical Medical Sciences	
Department of Gastroenterology and Hepatology	Department of Dermatology
Department of Cardiovascular, Renal and Metabolic Medicine	Department of Urology
Department of Respiratory Medicine and Allergology	Department of Otolaryngology - Head and Neck Surgery
Department of Medical Oncology	Department of Neuropsychiatry
Department of Neurology	Department of Radiology
Department of Surgery, Surgical Oncology and Science	Department of Anesthesiology
Department of Cardiovascular Surgery	Department of General Practice
Department of Orthopaedic Surgery	Department of Infection Control and Clinical Laboratory Medicine
Department of Neurosurgery	Department of Emergency Medicine

Courses	
Department of Clinical Medical Sciences	
Department of Obstetrics and Gynecology	Department of Oral Surgery
Department of Pediatrics	Department of Rehabilitation
Department of Ophthalmology	Department of Plastic and Reconstructive Surgery
Subjects	
Department of Basic Medical Sciences	
Department of Innovative Medical IP Management	Department of Medical Genetics
Department of Clinical Medical Sciences	
Department of Perinatal Medicine	Department of Intensive Care Medicine
Department of Pharmaceutical Health Care and Sciences	Department of Thoracic Surgery
Department of Clinical Pathology	Department of Hematology
Department of Diagnostic Radiology	Department of Rheumatology and Clinical Immunology
Division of Health Care Management	Department of Biostatistics and Data Management
Department	
Institute of Cancer Research	
Department of Cell Science	Department of Medical Genome Sciences
Institute of Regenerative Medicine	
Department of Tissue Development and Regeneration	Department of Neural Regenerative Medicine
Institute of Immunology	
Department of Human Immunology	Department of Molecular Medicine

Research Institute (former Research Institute for Frontier Medicine)

The Frontier Medical Research Institute attached to the Faculty of Medicine was established in April 2011 by reorganizing and integrating the research divisions of the Cancer Institute attached to the Faculty of Medicine (established in 1955) and the Education and Research Equipment Center attached to the Faculty of Medicine (established in 1999), and was later reorganized as the Institute attached to the Faculty of Medicine in November 2023.

Aiming to contribute to regional medical care and promote good health for Hokkaido residents, the institute is oriented towar d translational research based on state-of-the-art medical research and aims to share the benefits of its research with residents of Hokkaido.

The Institute consists of three research institutes and six divisions (two divisions per institute), and 17 full-time faculty members are engaged in cutting-edge medical research.

The institute also provides educational instruction to medical school students (teaching course subjects for second- and third-year students and allocating third-year students to laboratories for the practice of basic medical research) as well as providing educational and research instruction to graduate school students and research students by teaching course subjects at the Graduate School of Medicine.

Department of Medical Genome sciences

Academic Staff Organization

Institute of Cancer Research

Department of Cell Science
This department is engaged in th e basic research that is r equired for the identification of th e pathological causes and pr eventive care of human disease, using methods involving cultured normal human cells and based on cell biology.

Department of Medical Genome Sciences
This department is engaged in molecular-level basic research based on human genome information, working toward the identification genes related to cancer and other diseases, diagnostic methods, as well as ef fective prevention and treatment.

Institute of Regenerative Medicine

Department of Tissue Development and Regeneration
This department is engaged in r esearch related to the mechanism of tissue structure development and the role of stem/progenitor cells in the liver.

Department of Neural Regenerative Medicine
This department is engaged in research using stem cells aiming to develop regenerative therapies for intractable diseases.

Institute of Immunology

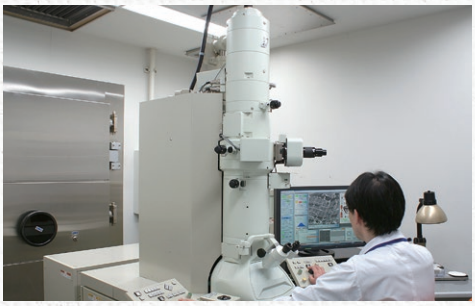
Department of Human Immunology
This department is engaged in basic research related to control mechanisms of the human immune sy stem, such as functional lymph ocytes and antibody production programs, with the aim of overcoming intractable diseases with underlying immune disorders.

Department of Molecular Medicine
This department is aims to analyze lung cancer and pulmonary fibrosis using the methods of molecular pathology and cell biology in order to uncover the molecular structures associated with their development and progression.

Biomedical Research, Education and Instrumentation Center

Due to the rapid progress of the technology in molecular biology , the techniques used for medical treatment and biological research have rapidly improved. For this reason, the Biomedical Research, Education and Instrumentation Center offers access to the latest equipment to support world class research. This equipment can be shar ed by r esearchers, and the collaboration between basic and clinical researchers is expected to result in significant contributions to the world's scientific community.

- Division of System Management
- Division of Morphological Research
- Division of Electron Microscopy
- Division of Proteomics
- Division of Gene Analysis
- Division of Cell Bank
- Division of Radioisotope Research
- Division of Digital Imaging
- Cell Processing Center


Transmission electron microscope

Animal Research Center

Animal experiments play an extremely important role in the basic research needed for highly advanced med ical treatment as well as cut ting edge research. The Animal Research Center offers state of the art facilities to conduct and support this research.

Animals	Average Daily Purchases	Average Daily Colony Size*
Rat	3,169	729
Mouse	3,137	3,809
Skid mouse/Nude mouse	224	212
Guinea pig	8	3

(FY 2022)


Inside the facility

Surgical Training Center

On December 1, 2021, Sapporo Medical University opened its new Surgical Training Center at its School of Medicine.
The Center helps various clinical departments to conduct surgical training and instruction by using bodies donated by members of the Sapporo Medical University Shiragiku-kai for the purposes of improving practical clinical abilities in medical situations, training medical personnel in the region, and refining medical technologies. The Center also aims to advance education and research in the field of clinical anatomy, aid in the acquisition of new, high-level, or invasive surgical techniques, and promote the research and development of medical equipment and the like.

Educational Goals

The School of Health Sciences aims to educate personnel to:
Respect human life and human rights, see people of all backgr ounds holistically, and treat all people with empathy.
Recognize the diversity of culture and values and look at various issues from
a social viewpoint.
Possess a high level of basic and foundational knowledge and skills in order to pr actice with a high level of exper tise according to the specific characteristics of individuals, families, and local society, who are in need of healthcare, medical treatment, and welfare support.
Think creatively and work actively to impr ove and reform the status quo, facing the various regional issues in health, medical care, and welfare, based on a sense of responsibility as specialists.
Have a deep awareness of their own role and function in health, medical and welfare services and can collaborate and cooperate with people in various positions, including those in other professions.
Continuously maintain and develop their specialized abilities while working to contribute to developments in nursing, physical therapy, and occupational therapy with a strong sense of self-learning and self-improvement.

Educational Policy

Diploma Policy

The educational goal of the School of Health Sciences is to educate nur ses, public health nurses, physical therapists and occupational therapists who can support the health and lives of people, as well as pr ofessionals who contribute to improvements in development and practice of these respective academic fields.
The basic skills required to achieve this goal are defined as the School's diploma policy, and specific skills required for each field are designated by each department.
The School of Health Sciences confers bachelor's degrees upon students who have earned the required credits and are equipped with the skills required by the diploma policies of the School and the relevant department.

1. Basic abilities to realize the University's fundamental ethos Students must acquire the following:

1) The breadth of education needed to under stand natural and social phenomena from various angles.
2) The abilit y to focus on a variety of social issues fr om a broad perspective and identify their essence.
3) The ability to accept a variety of cultures and values, and to behave with respect for human rights, personality, and individuality.
4) The abilit y to interact with others in a variety of social set tings and appropriately express one's ideas and thoughts.
5) The ability to develop health, medical care, and welfare services in our society and to subjectively participate in events.

2. Abilities contributing to the development of professions and professional fields in health, medical care and welfare services Students must acquire the following:

1) The systematic knowledge and skills required in the professional field of a nurse, physical therapist, or occupational therapist.
2) The ability to identify issues in a specialized field and develop solutions through creativity and scientific thinking.
3) The abilit y to collaborate and cooperate with a variet y of people involved in health, medical care, and welfare services.
4) Awareness of the roles and responsibilities of an expert, and the ability to practice with a strong sense of ethics.
5) The ability to engage in self-learning as well as the will for lifelong study for healthcare work and the development of various academic fields.

Curriculum Policy

In order to foster professionals who have acquired the abilities set forth in the diploma policy, the School of Health Sciences has systematically organized a general curriculum that provides an overview of humans, nature, and society, as well as a specialized curriculum that provides the foundation for professional work in specialized fields. The curriculum consists of a combination of lectures, exercises, experiments, and on-site and clinical practice.
In the School's curriculum policy, the basic terms related to the three common subjects needed to fulfill the faculty diploma policy are defined, and each department specifies the curriculum policy for the specialized curricula.

1. Curriculum Details

The general curriculum comprises liberal arts subjects to help cultivate students with rich creativity and strong ethics, categorized as natural science, psychology and behavior, society and culture, lifestyles and information, and foreign languages. These subjects are generally taken in the first two years of study. In addition, first-year students learn the study skills, etc. that they will need for independent learning activities while at the University.

The specialized curriculum comprises subjects to support nursing, physical therapy, and occupational therapy fields, subjects related to Hokkaido's regional characteristics and local medical care called "Specialization Basics," specialized subjects where students acquire knowledge and skills in each academic field gradually and systematically, and integrated learning that requires integration of existing knowledge and skills. The knowledge, skills and attitude required for each specialization are learned practically through on-site training and clinical training where students work with people in their related professions. In integrated learning, students form mixed teams from each of the three departments in the School of Health Sciences to take one course on the Theory of Health and Medical Care per year, in which they learn the basic attitude required for their respective fields, and how to collaborate and cooperate with other professionals.

The third and fourth years consist of subjects related to research and students follow a full research process with a faculty instructor. Students will also learn basic knowledge and skills related to disaster medicine. Career education and career support aimed at supporting lifelong continuous employability are provided in both curricular and extra-curricular settings, but the matters that serve as the foundation for forming a career are learned in mixed subjects in the third year.

2. Educational Methods

The School of Health Sciences curriculum was designed for a gradual deepening of specialized fields with annual progress in each department, and specialization basics and courses in specialized subjects are provided early in order to increase motivation for the student's future career as a specialist. In addition, we adopt small-group active learning that takes advantage of the characteristics of small-scale faculties and departments, work to develop a learning process of proper quality and quantity, including pre-preparation and post-development, and cultivate a willingness to learn autonomously and continuously.

3. Assessment of Learning Achievement

We will perform assessments of the progress of the learning achievements indicated in our Diploma Policy at the curriculum level, the subject level, and the learning attainment level; specific details are defined in our Assessment Policy.

We perform assessments of individual student grades using methods appropriate for the curriculum of each subject, including tests, reports, presentations, and more, according to the assessment targets and weighting defined in each subject's syllabus.

Practical training session for Basic Nursing I

Physical therapy evaluation diagnostics

Admissions Policy

Our ideal student:

The School of Health Sciences provides education based on our diploma policy and curriculum policy, in order to cultivate the fundamentals and basic practical skills required by nurses, physical therapists and occupational therapists, and the research capabilities necessary to contribute to the development of various academic fields based on the spirits and ideas of Sapporo Medical University. To accomplish this, we seek students with the following abilities and qualities.

[Knowledge and Skills]

1. Has a great breadth and depth of knowledge and skills learned through high school education.

[Ability to think, judge, express, etc.]

2. Can think logically about a variety of social topics based on knowledge and information and effectively express him- or herself.
3. Can consider society from various perspectives with intellectual curiosity and see the world with a flexible mindset.

[Attitude of learning with independence and collaboration with diverse people]

4. Can act in a sensible manner according to good conscience and the norms of society.
5. Values personal interaction and always treats others with warmth and respect.
6. Can work tenaciously for self-growth.

Curriculum

Based on our Education Policy, our curriculum is organized to provide consistent education across four years. In the first year, we provide general education in order to build the liberal arts background needed for personal development, as well as foundational subjects for specialized education. In the second year and following, we provide the full depth and breadth of specialized education.

• Curriculum

	1Yr	2Yr	3Yr	4Yr
Joint Curriculum of Three Departments	General Education Courses			
	Specialty Basic Subjects			
	Integrated Studies			
	Integrated Studies			
Department of Nursing	Specialty Basic Subjects			
	Fundamentals of Nursing			
		Specialized Subjects		
			Integration of Nursing	
	On-site Practice			

	1Yr	2Yr	3Yr	4Yr
Department of Physical Therapy	Specialty Basic Subjects			
	Specialty Basic Subjects			
	Specialized Subjects			
		Specialized Subjects		
	Clinical Training			
Department of Occupational Therapy	Specialty Basic Subjects			
	Specialty Basic Subjects			
	Specialized Subjects			
		Specialized Subjects		
	Clinical Training			

Department of Nursing

• Detailed instructions in a small group setting

The maximum capacity at the Department of Nursing is 50 students per year, and there are approximately 30 full-time teachers. Few faculties in Japan offer this level of small group education.
The small number of students per teacher allows for specific, tailored instruction to be provided to individual students based on their unique personalities and abilities.
Detailed instruction is also given to students on the spot during practical clinical training programs, which are considered particularly important in the nursing department, supporting students to build a foundation for improving their practical skills.

Department of Nursing

Department of Physical Therapy

• Unique curriculum to cultivate strong clinical skills

The specialized fields at the Department of Physical Therapy are divided into movement disorders, central nervous system disorders, internal disorders, developmental disorders, and community physical therapy. Classroom lectures to acquire knowledge are provided individually for each field, while seminars and practical training to acquire techniques and skills are provided comprehensively. This unique curriculum supports the development of strong practical skills in students.
The department also has coordinators to arrange groups of course subjects with high degrees of commonality. The continuity of knowledge and skills learned in different subjects is considered to provide a highly efficient learning environment.

Department of Physical Therapy

Department of Occupational Therapy

• Fostering a high degree of specialization and practical education

Occupational therapy provides care to a diverse range of patients, including the physically or mentally disabled, those with higher brain dysfunction, children and adults with developmental disorders, and the elderly.
Therefore, occupational therapists can be recognized as a specific category of medical professionals who require broad knowledge of social sciences and humanities as well as medicine.
For this reason, the Department of Occupational Therapy is pushing ahead with the enhancement of general education and specialized education through collaboration with our surrounding society to focus on character building for medical professionals.

Department of Occupational Therapy

Academic Staff Organization

Courses		
Department of Nursing	Department of Physical Therapy	Department of Occupational Therapy
First Division of Nursing	First Division of Physical Therapy	First Division of Occupational Therapy
Second Division of Nursing		
Third Division of Nursing	Second Division of Physical Therapy	Second Division of Occupational Therapy

Purpose

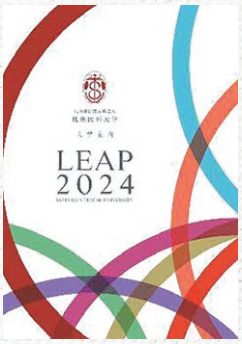
The Center educates medical personnel with advanced medical skills, strong medical ethics, high levels of education, and strong characters through organized coordination between liberal arts and specialized education (in the fields of medicine and healthcare).
By developing programs with a focus on consistent education including liberal arts, foundations for specialties and clinical training, both before and after graduation, the Center plays a leading role as a think tank for medical and healthcare education at the University and trains medical personnel who can contribute to community medical care in Hokkaido.

Organization

The Center consists of five departments, and its faculty members work closely with both the School of Medicine and the School of Health Sciences. Admissions, cooperation between the University and high school, liberal arts education, and educational development, among others, all play indirect yet important roles in achieving the University's mission.

Department of Admissions and High School Liaison

The department of admission and high school liaison is responsible for the conduction, verification, and assessment of the student enrollment processes.
Our department implements and evaluates the selection of students for admission to the university, in order to realize the "pursuit of medicine and medical care" and "contribution to community healthcare" stated in the university's founding spirit.
We also visit high schools in Hokkaido to promote mutual understanding and cooperation between high schools and universities. In order to promote the attractiveness of the university, we create the university guide "LEAP," produce videos introducing the faculties, and publicize the university at open campuses and other venues.



University guide "LEAP2024"


Open campus

Especially, the school of medicine has set special quotas for the admission examination, for example, which is called "advanced education and training opportunities program for medical students (ATOP-M)". Students who have been accepted in these quotas are required to participate in a medical practitioner fostering program after graduation. In particular, we offer special "postgraduate carrier development program" in ATOP-M quota. Consequently, they are expected to play leading and central roles in medical science and healthcare services in Hokkaido.

Department of Liberal Arts and Sciences

The Department of Liberal Arts and Sciences provides liberal arts education, as well as foundational and specialized education to help students develop and advance the knowledge, attitude, skills, and intellectual curiosity necessary for effective healthcare professionals and researchers. The Department also seeks to contribute to the development of various fields of study through academic research.

Department of Liberal Arts and Science (9 subjects)		
Philosophy/Ethics	English	Chemistry
Psychology	Exercise Science	Biology
Law/Sociology	Physics	Mathematics and Information Science

Department of Education Development

- **This department sets out to foster medical personnel by a consistent program after graduation. For that purpose,**
  1. We have developed an integrated program between basic and clinical subjects considering smooth connection from undergraduate toward postgraduate clinical training.
  2. We have planned the joint curriculum between the School of Medicine and School of Health Sciences in liberal arts and professional education, respectively.
- **For the faculties' strengthening educational activities, this department is also engaged in the research and practice of the followings.**
  1. Faculty development (FD) and staff development (SD)
  2. Educational grants from the Ministry of Education, Culture, Sports, Science and Technology.
  3. Educational assessment and evaluation, etc.

Department of Institutional Research

The purpose of this department is to collect and analyze information on education and to contribute to the improvement of the educational level of our university.
Specifically, it collects, manages, and analyzes data related to student performance, curricula, and other educational activities, and reports this information.
It also gathers and analyzes data on student careers after graduation, and reports this information. It provides materials for determining whether the school mission is reflected among students and graduates, and supports internal quality assurance at the University.

Department of Applied Informatics

Department of Applied Informatics provides education based on medical information and artificial intelligence, and carries out advanced research in medicine and health science utilizing medical informatics and ICT (Information and Communication Technology)-based methods. This department is also involved in institutional support for accelerating digital transformation.

Community Health Care Education - Joint Program of the School of Medicine and the School of Health Sciences

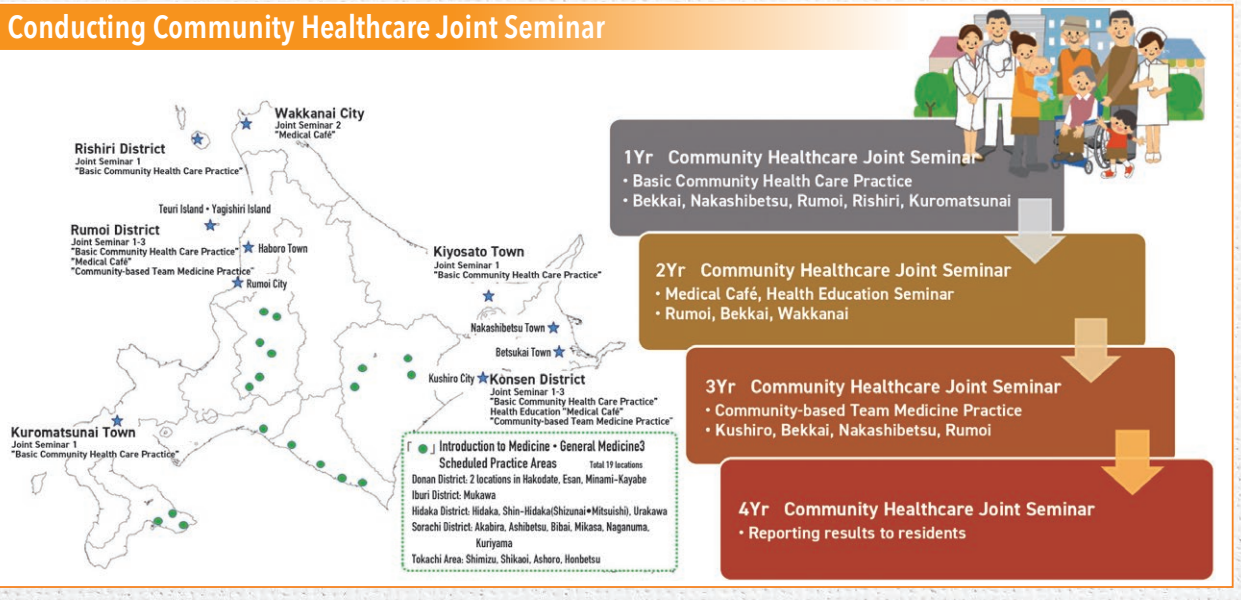
• Community Healthcare Joint Seminar (for 1st to 4th year School of Medicine & School of Health Sciences students)

Hokkaido prefecture, facing the mal-distribution of medical professionals and the medical depopulation, Sapporo Medical University has community health care education program upon entrance to encourage students to contribute to the community health care, which leads to solve the social issues.
As a part of this initiative, we have created our original program called “the Community Healthcare Joint Seminar”, which aims to develop students' ability to collaborate with a diverse range of occupations (not only medical personnel but government and the industrial sector).
This subject helps the students' understanding and their obtaining ability for interprofessional working through their experiences, which are needed in community healthcare. In this program, students from both the Schools form joint teams, stay in the local areas and learn from on-the-job-training. This program is a 3.5-year continuous program that starts with first-year students, deepen and extend step by step, which will help students' building their sense of mission toward local healthcare.

Residential Community Internship
(Community-based Training)

Residential Community Internship
(Health Promotion Seminar)

Conducting Community Healthcare Joint Seminar



Educational Policy

Diploma Policy

The Graduate School of Medicine confers degrees upon students who have earned the required credits, passed the thesis/dissertation defense, and fulfill the following requirements:

Doctoral Program
Students must have:

1. The skills and knowledge to plan and implement highly creative medical research.
2. A sense of ethics appropriate for medical researchers.
3. The leadership qualities to lead advanced medical research.
4. The ability to present research findings to the world.

Master's Program
Students must have:

1. Specialized knowledge and basic skills related to medical science.
2. A sense of ethics appropriate for medical research.
3. The ability to understand research methodology and thought processes, and to report research findings accurately.

Curriculum Policy

In order to achieve the goals of the Diploma Policy, the Graduate School of Medicine organizes and implements a curriculum based on the curriculum policy outlined below:

Doctoral Program

1. Develop the specialized knowledge and skills required to perform medical research and cultivate of a sense of ethics.
2. Develop problem-solving skills and leadership qualities related to medical science and medical care.
3. Help students to acquire communication skills to present research findings internationally.
4. Provide common courses and major/minor research courses to accomplish the curriculum policies above (1 to 3).

Master's Program

1. Help students to acquire general knowledge related to medical science.
2. Develop basic knowledge and skills required for medical research and cultivate a sense of ethics.
3. Provide general and specialized educational courses and special research subjects to accomplish the curriculum policies above (1 and 2).

Admissions Policy

Our ideal student : < Doctoral Program >
The Graduate School of Medicine, Doctoral Program seeks individuals who possess the following qualities to become future medical researchers.

[Knowledge and Skills]
1. Has intellectual curiosity, a spirit of scientific inquiry, and a desire to acquire advanced knowledge and skills.

[Ability to think, judge, express]
2. Has rich in creativity and has a desire to apply and develop their skills.

[Attitude of learning with independence and collaboration with diverse people]
3. Has high ethical standards and a will to play an active role in the field of medicine.
4. Has an international perspective and a willingness to address social and scientific issues.

Our ideal student : < Master's Program >
The Graduate School of Medicine, Master's Program seeks individuals who possess the following qualities as future leaders of professions that require a high degree of medical expertise.

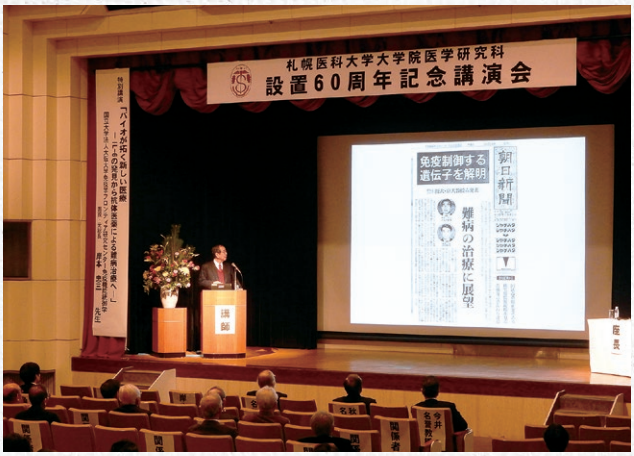
[Knowledge and Skills]
1. Has intellectual curiosity, a spirit of scientific inquiry, and a desire to acquire advanced knowledge and skills.

[Ability to think, judge, express]
2. Has a desire to systematically and intensively learn specialized knowledge in medical science.

[Attitude of learning with independence and collaboration with diverse people]
3. To share various values related to medical science and aspire to contribute to research, education and practice.

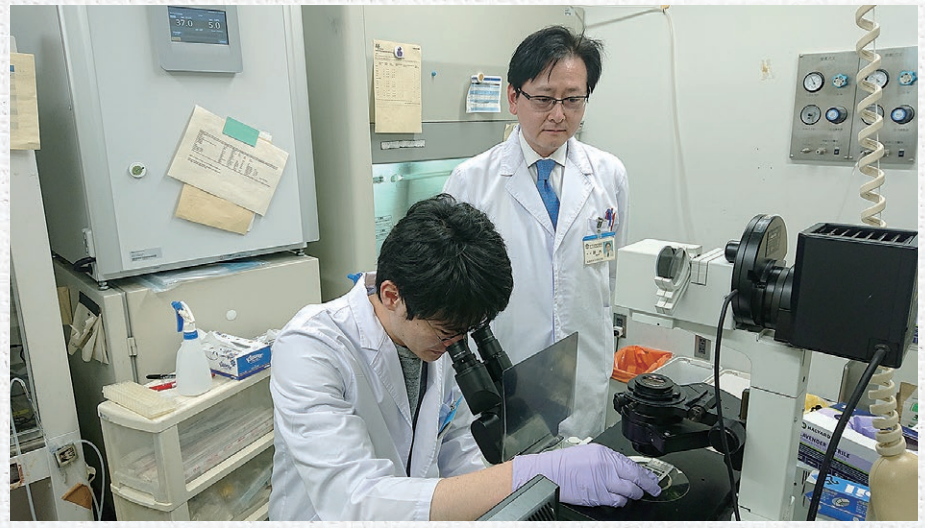
Education at the Graduate School of Medicine

The Graduate School of Medicine was established in 1956 to provide students with the research capabilities necessary to conduct independent research activities as researchers or engage in other highly professional tasks, as well as necessary foundational education.
Since its establishment, degrees have been awarded to approximately 3,200 students who are now working actively in their respective fields.
In April 2001, the fields of specialization were broadened in order to keep pace with advances in medical science and healthcare practice. The previous system had five specialties (physiology, pathology, social medicine, internal medicine, and surgery) and 39 subjects with an enrollment capacity of 31 students. The reorganized system offers three specialties consisting of comprehensive research areas in which basic and advanced research results are used in clinical disciplines (community health and comprehensive medicine, molecular and organ regulation, and signal transduction medicine). These three specialties are further subdivided into 11 sub-specialties (58 subjects) with an enrollment capacity of 50 students.
In the 2008 academic year, five new clinical oncology subjects were added to the Program of Molecular and Organ Regulation and the School began offering two courses of research: the Medical Science Research Course and the Clinical Medicine Research Course. The Cancer Research Course has also been provided since the 2018 academic year.
The Medical Science Research Course aims to develop future researchers and educators and is not limited to medical school graduates, but accepts applicants from various academic disciplines who wish to pursue careers in medical research. The Clinical Medicine Research Course accepts physicians beginning in their second year of internship after graduation, training them to work in the community providing advanced specialized clinical care.
The Cancer Research Course trains leading medical professionals specializing in cancer who can meet new needs in the field of cancer medicine.



Graduate School of Medicine 60th Anniversary Lecture

All courses support students in acquiring scientific, objective, and ethical ways of thinking while cultivating wide-ranging fundamental knowledge through research.
The Graduate School of Medicine also provides a wide variety of lectures, including seminars by invited external researchers, for students to learn about cutting-edge medical research as well as many e-learning lectures for students living in remote locations.
Moreover, the Medical Science Course (master's program), which opened in April 2008, accepts students with different academic backgrounds, regardless of their field of undergraduate study, and fosters professionals with broad-ranging medical knowledge and insights and researchers with deep medical knowledge. These students may go on to the doctoral program.


Research Work

Education and Research Field 2024

Master's Course

Medical Science Major

Division	Course Subjects
General Education	Bioinformatics I, II
	Bioinformatics and Morphology I, II
	Social Medicine
	Pathobiology I, II
	Medical Ethics
	Medical Psychology
Specialized Education	Clinical Medicine I-IV
	Radiology
	Health and Behavioral Sciences
	Systems Neuroscience
	Cancer Genome Genetics
	Basic Human Genetics
	Clinical Genetics
	Genetic Counseling Exercise
Special Research	Molecular Cell Biology
	Biomolecular Morphology
	Medical Genome Sciences
	Molecular Medicine
	Applied Molecular Biology
	Developmental and Regenerative Medicine
	Immunology Medicine
	Tumor Immunology
	Tumor Pathology
	Clinical Immunology
	Clinical Pathology
	Gastrointestinal Ulcerology
	Circulatory Renal Pathology
	Respiratory Control Medicine
	Cardiovascular Functional Therapeutics
	Visual Function Control Medicine
	Sensory Function Medicine
	Dermal Oncology
	Surgical Oncology and Gastrointestinal Surgical Therapeutics
	Functional Stomatology and Oral Surgery
	Environmental Health and Preventive Medicine
	Public Health
	Biostatistics and Data Management
	Legal Medicine
	Pathophysiology of Mental Function
	General Practice
	Molecular Cell Function
	Molecular Medical Chemistry
	Molecular and Cellular Pathology
	Time Infectious
	Rehabilitation Medicine
	Orthopaedics
	Central Nervous System and Neurosurgery
	Pathophysiology of Neuromuscular Diseases
	Pharmaceutical Health Care and Sciences
	Neuro-molecular pharmacology
	Biofunctional Regulatory Medicine
	Critical Care Medicine
	Radiation Oncology,Radiology ,and Physics
	Renal, Urinary Tract and Reproductive Medicine
	Functional Stomatology and Oral Surgery
	Cellular Physiology and Signal Transduction
	Functional Morphology and Anatomy
	Intellectual Property in Medicine
	Neural Regenerative Medicine
	Infection Control Medicine
	Clinical Genetics
	Genetic Counseling Practice

Doctoral Programs

Program of Community Health and Comprehensive Medicine

Division	Course Subjects
Division of Community and Comprehensive Medicine	General Practice
	Biostatistics and Data Management
	Environmental Health and Preventive Medicine
	Public Health
	Health and Behavioral Sciences
Division of Human Comprehensive Medicine	Rehabilitation Medicine
	Legal Medicine
	Pharmaceutical Health Care and Sciences
	Time Infectious
	Intellectual Property in Medicine
	Clinical Genetics
Division of Development and Differentiation/ Anti-Aging Medicine	Gastrointestinal Oncology
	Respiratory Medicine
	Thoracic Surgery
	Developmental and Regenerative Medicine
	Neural Regenerative Medicine
	Developmental Pediatrics
	Cardiovascular and Renal Pathophysiology
	Cardiovascular Cell Metabolism and Pathology
Division of Biological Defense Medicine	Infection Control Medicine
	Anesthesiology
	Critical Care Medicine
	Biofunctional Regulatory Medicine

Program of Molecular and Organ Regulation Medicine

Division	Course Subjects
Division of Clinical Oncology	Cancer Pharmacotherapeutics
	Applied Hematology and Oncology
	Radiation Oncology,Radiology ,and Physics
	Palliative Medicine
	Surgical Oncology and Gastrointestinal Surgery
Division of Genetic Medicine	Medical Genome Sciences
	Molecular Medicine
	Molecular Cell Biology
Division of Molecular Oncology	Tumor Pathology
	Dermal Oncology
	Tumor Immunology
Division of Organ Function and therapeutics	Diagnostic Pathology
	Cardiovascular Function Therapy
	Orthopaedics
	Renal, Urinary Tract and Reproductive Medicine
	Functional Stomatology and Oral Surgery
	Body Surface and Morphological Restorative Medicine
	Gynecology and Endocrinology
	Clinical Immunology

Program of Signal Transduction Medicine

Division	Course Subjects
Division of Neural Sciences	Neurophysiology
	Neuro-molecular pharmacology
	Pathophysiology of Neuromuscular Diseases
	Psychiatry
	Central Nervous System and Neurosurgery
	Ophthalmology and Visual Sciences
	Head and Neck Oncology
Division of Biological Function and Regulation	Cellular Physiology and Signal Transduction
	Molecular Medical Chemistry
	Applied Molecular Biology
	Molecular Analysis
	Clinical Pathology
	Immunology Medicine
	Molecular Cell Function
Division of Biological Structure and Signal Transduction	Molecular and Cellular Pathology
	Biomolecular Morphology
	Functional Morphology and Anatomy
	Molecular Pathology and Informatics
	Molecular Cell Science

Lecture by an external researcher

Graduate School of Medicine Open Lecture

Educational Policy

Diploma Policy

• Nursing Program

[Doctoral Program – First Term]

The Nursing Program confers master's degrees in nursing upon students who have been enrolled for two or more years, earned the required number of credits, passed the master's thesis or research essay defense and final examination, and are deemed to have acquired the following abilities:

1. Knowledge and skills in their specialized field and basic knowledge in related fields.
2. Basic knowledge required of researchers, such as research concepts, methods, and ethics.
3. The ability to select research subjects in nursing and structure research methods under appropriate guidance.
4. The ability to implement research using basic research methods.
5. The ability to criticize, think logically, and express oneself required of researchers and advanced nurse practitioners.
6. The ability to follow and act according to the ethics required for researchers and advanced nurse practitioners.

[Doctoral Program – Second Term]

The Nursing Program confers doctoral degrees upon students who have been enrolled for three or more years, earned the required number of credits, passed the doctoral thesis and final examination, and are deemed to have acquired the following abilities:

1. Expert knowledge in their specialized fields and interdisciplinary knowledge of related fields.
2. The ability to propose and plan research from an original perspective and to conduct the research according to a strict code of ethics.
3. The ability to create new knowledge in structuring nursing theory and improving nursing skills.
4. The ability to present research findings domestically and internationally and contribute to the development of education, research, and practice in the field of nursing.

• Physical Therapy and Occupational Therapy Program

[Doctoral Program – First Term]

The Physical Therapy and Occupational Therapy Program confers master's degrees upon students who have been enrolled for two or more years, earned the required number of credits, passed the master's thesis or research essay defense and final examination, and are deemed to have acquired the following abilities:

1. Knowledge of their specialized field and basic knowledge in fields related to physical and occupational therapy.
2. Basic knowledge required of researchers, such as research concepts, methods, and ethics.
3. The ability to select research subjects in physical and occupational therapy and related fields and structure research methods under appropriate guidance.
4. The ability to implement research using basic research methods.
5. The ability to criticize, think logically, and express oneself required of researchers.
6. The ability to follow and act according to the ethics required of researchers.

[Doctoral Program – Second Term]

The Physical Therapy and Occupational Therapy Program confers doctoral degrees upon students who have been enrolled for three or more years, earned the required number of credits, passed the doctoral thesis and final examination, and are deemed to have acquired the following abilities:

1. Expert knowledge in their specialized fields and interdisciplinary knowledge of related fields.
2. The ability to propose and plan research from an original perspective and to conduct the research according to a strict code of ethics.
3. The ability to create new knowledge in structuring theory in the fields of physical and occupational therapy, and improving skills in those fields.
4. The ability to present research findings domestically and internationally and contribute to the development of education, research, and practice in the fields of physical and occupational therapy.

Curriculum Policy

• Nursing Program

To educate personnel with the abilities listed in the diploma policy, the Nursing Program organizes and implements a curriculum based on the policy outlined below:

[Doctoral Program – First Term]

1. The curriculum consists of a combination of coursework focused on lectures and exercises, and research work in which students implement the research process under guidance.
   1) Coursework
      (1) Select subjects for the acquisition of expertise and skills in the specialized field.
      (2) Select subjects for the acquisition of a wide range of knowledge in fields related to nursing.
      (3) Select subjects for the acquisition of basic knowledge required of researchers such as research methods and research ethics.
      (4) Cultivate the ability to criticize, think logically, and express oneself through literature review, presentations, discussions, and other processes.
      (5) In the Certified Nurse Specialist Course, allow students to acquire knowledge and skills related to practice, education, ethics coordination and other work required of advanced practice nurses.
      (6) In the Certified Nurse Specialist Course, cultivate excellent practical skills through clinical training in the specialized field.
   2) Research work
      (1) In special nursing research and other projects, allow students to select research subjects related to the specialized field and prepare research plans under guidance.
      (2) Develop basic research ability through the process of implementing research after review of the research plan and ethical review, as well as thesis preparation, defense, and other processes.
2. Develop basic educational capabilities by providing undergraduate students with opportunities to participate as teaching assistants in lectures, exercises, and practice.
3. Cultivate skills for interdisciplinary work through joint study in common subjects with students in other fields.

[Doctoral Program – Second Term]

1. Improve students' research skills through coursework related to improving nursing skills and theory construction, and research work in which they conduct their own research under an instructor's guidance.
2. Improve students' independent research skills while allowing them to learn research methods and design by establishing opportunities to engage in academic research both on campus and in extracurricular settings.
3. Deepen interactions with researchers in other specialized fields through presentations of research papers at conferences both in Japan and internationally.

• Physical Therapy and Occupational Therapy Program

To educate personnel with the abilities listed in the diploma policy, the Physical Therapy and Occupational Therapy Program organizes and implements a curriculum based on the policy outlined below:

[Doctoral Program – First Term]

1. The curriculum consists of a combination of coursework focused on lectures and exercises, and research work in which students implement the research process under guidance.
   1) Coursework
      (1) Select subjects for the acquisition of expertise and skills in the specialized field.
      (2) Select subjects for the acquisition of a wide range of knowledge in fields related to physical therapy and occupational therapy.
      (3) Select subjects for the acquisition of basic knowledge required of researchers such as research methods and research ethics.
      (4) Cultivate the ability to criticize, think logically, and express oneself through literature review, presentations, discussions, and other processes.
   2) Research work
      (1) In special physical therapy and occupational therapy research and other projects, allow students to select research subjects related to the specialized field and prepare research plans under guidance.
      (2) Develop basic educational capabilities through the process of implementing research after review of the research plan and ethical review, as well as thesis preparation, defense, and other processes.
2. Develop basic educational capabilities by providing undergraduate students with opportunities to participate as teaching assistants in lectures, exercises, and practice.
3. Cultivate skills for interdisciplinary work through joint study in common subjects with students in other fields.

[Doctoral Program – Second Term]

1. Improve students' research skills through coursework related to developing physical therapy and occupational therapy care skills and theory construction, and research work in which they conduct their own research under an instructor's guidance.
2. Improve students' independent research skills while allowing them to learn research methods and design by establishing opportunities to engage in academic research as research assistants.
3. Deepen interactions with researchers in other specialized fields through presentations of research papers at conferences both in Japan and internationally.

Admissions Policy

Our ideal student

The Graduate School of Health Sciences aims to nurture practitioners and researchers with advanced professional knowledge, practical skills, and research abilities that will contribute to the development of nursing, physical therapy, and occupational therapy and to the improvement of the quality of health, medical care, and welfare. To this end, we seek the following personnel.

<Doctoral Program – First Term>

[Knowledge and Skills]

1. Has professional knowledge and skills in nursing, physical therapy, or occupational therapy, as well as critical and logical thinking skills.

[Ability to think, judge, express]

2. Has a deep interest in issues related to health, medical care and welfare services and a desire to develop and solve problems in those fields as a personal goal.

[Attitude of learning with independence and collaboration with diverse people]

3. Hopes to acquire outstanding practical skills in their specialized field to respond to diverse, complicated human needs.
4. Has a strong character and sense of ethics, and wishes to contribute to heath, medical care, and welfare in the local community.
5. Wishes to contribute to the improvement and development of health, medical care, and welfare by reporting research results.

<Doctoral Program – Second Term>

[Knowledge and Skills]

1. Has professional knowledge related to nursing, physical therapy, or occupational therapy, as well as critical and logical thinking skills and scientific curiosity, and the desire to create new knowledge.

[Ability to think, judge, express]

2. Has a deep interest in issues related to health, medical care and welfare services and a desire to develop and solve problems in those fields as a personal goal.

[Attitude of learning with independence and collaboration with diverse people]

3. Has a strong character and sense of ethics, and wishes to contribute to heath from an international perspective.
4. Wishes to contribute to the development of health, medical care, welfare, and science by reporting research results widely both in Japan and abroad.

Education at the Graduate School of Health Sciences

The Graduate School of Health Sciences comprises the Nursing Program and the Physical Therapy and Occupational Therapy Program, and each has a master's program and a doctoral program.

The master's program was established in April 1998 to provide students with profound knowledge from a broad perspective and cultivate research capabilities for their specialties and the skills necessary for occupations that require high expertise.

The Nursing Program trains high-quality practitioners through the Master's Thesis Course, which helps students to improve their research capability in their specialized field, and the Certified Nurse Specialist (CNS) Course, which was established in 2006.

The purpose of the doctoral program is to foster research capabilities necessary for the students to conduct independent research activities in their major fields or engage in other specialized professional work, and to acquire knowledge that forms the basis of such capabilities. The Graduate Course in Physical Therapy and Occupational Therapy and the Graduate Course in Nursing were established in April 2000 and April 2006, respectively.

The Graduate School of Health Sciences has research and instruction systems aimed at providing programs which meet diversified needs and supporting the development of related academic fields and their activities, and that additionally foster independent and self-directed healthcare professionals who can fulfill the trust placed in them by local communities.

The school also offers an entrance exam system, class schedule and extended coursework period designed to allow professionals to balance work and study.

After completing the graduate program, students are expected not only to become leaders in their specialized field but also specialists who can play an active role in Hokkaido and the international community.

Education and Research Field 2024

Doctoral Program - First Term		
		Educational Research Subfield
Nursing Program	Master Thesis Course	Fundamental Nursing
		Infection Control Nursing
		Women's Health Nursing
		Child Health Nursing
		Adult Health Nursing
		Geriatric Health Nursing
		Psychiatric Nursing
		Community Health Nursing
		Clinical Internal Medicine
		Clinical Surgery
	Professional Nurse Course	Child Health Nursing
		Critical Care Nursing
		Psychiatric Nursing

Doctoral Program - First Term	
	Educational Research Subfield
Physical Therapy Program	Physical Therapy of Neurological & Developmental Disorder
	Biomechanics/Orthopaedic Sports Medicine
	Sports Physical Therapy
	Muscle Physiology
	Biofunctional & Imaging Evaluation in Physical Therapy
	Physical Anthropology
Occupational Therapy Program	Sensory Integrative Dysfunction
	Central Nervous System Dysfunction
	Human Activities & Therapeutic Process
	Clinical psychiatry and Brain functions
	Occupational Therapy for Psychiatrics and Mental Health
	Therapeutic research in neurocognitive disorder and stroke
	Occupational Science

Doctoral Program - Second Term	
	Educational Research Subfield
Nursing Program	Fundamental Nursing
	Infection Control Nursing
	Women's Health Nursing
	Child Health Nursing
	Adult Health Nursing
	Geriatric Health Nursing
	Psychiatric Nursing
	Community Health Nursing
	Clinical Internal Medicine
	Clinical Surgery

Doctoral Program - Second Term	
	Educational Research Subfield
Physical Therapy Program	Physical Therapy of Neurological & Developmental Disorder
	Biomechanics/Orthopaedic Sports Medicine
	Sports Physical Therapy
	Muscle Physiology
	Biofunctional & Imaging Evaluation in Physical Therapy
	Physical Anthropology
Occupational Therapy Program	Sensory Integrative Dysfunction
	Central Nervous System Dysfunction
	Human Activities & Therapeutic Process
	Clinical psychiatry and Brain functions
	Occupational Therapy for Psychiatrics and Mental Health
	Therapeutic research in neurocognitive disorder and stroke

Educational Policy

Admissions Policy

The Graduate Course at Sapporo Medical University aim to train public health nurses and midwives who are creative and have strong character, and also have advanced knowledge and excellent skills allowing them to contribute to health, medical care, and welfare in Hokkaido. To accomplish this, we seek students with the following abilities and qualities.

- **Our Ideal Student**
  1. Has a deep interest in health, medical care, and welfare in Hokkaido and wants to contribute to the community as a public health nurse or midwife.
  2. Has acquired a high level of knowledge and skills in the field of public health nursing or midwifery.
  3. Has the practical skills necessary to solve issues arising in nursing.
  4. Respects diverse values and has high ethical standards and acts accordingly.
  5. Recognizes the role and the responsibility of the nursing profession and seeks a career as a professional in the field.
- **Student Selection Aims**

  We conduct an academic examination consisting of objective and written tests relating to the field of nursing in general to confirm that students have the knowledge required to study public health nursing or midwifery. We also evaluate students' motivation and awareness with regard to public health nursing or midwifery, as well as their suitability as future public health nurses or midwives.

Graduate Course in Public Health Nursing

Educational Goals

The Graduate Course in Public Health Nursing has the following educational goals in order to cultivate a foundation for public health nurses who can build a local care system and meet the various needs of local society.

1. Educate personnel with a high level of knowledge and skills that serve as the foundation for practical skills needed to support the health and well-being of local residents.
2. Educate personnel with the ability to understand social changes and grasp the health issues that exist in the community with a broad perspective.
3. Educate personnel who can develop and systemize social resources and draft policies to solve health problems in the society.
4. Educate personnel who can collaborate and cooperate with local residents, related facilities and professionals in other fields, and act systematically in partnership with them.
5. Educate personnel who respect human life and human rights and are able to act according to the ethics required of professionals using social equity as a foundation.
6. Educate personnel who are committed to continuous self-improvement in order to improve the quality of public health nursing and who have an attitude to maintain and develop themselves as well as pursue the study of public health nursing.

Diploma Policy

The Graduate Course in Public Health Nursing issues certificates of completion to students who have acquired the expertise and practical skills required of a public health nurse working in local health and welfare, and earned the required number of credits. These students are also qualified to sit for the National Public Health Nursing Examination.

Students must have:

1. The knowledge and skills in public health nursing and related fields needed to identify local health problems, propose a plan of action, and systematically solve issues.
2. The basic ability to face the local community and develop community-based practices for the purpose of creating rich social capital.
3. The ability to develop and systemize social resources and draft policies to solve health problems in the local community.
4. The ability to build trusting relationships with local residents, related facilities, and a variety of professionals in other fields and collaborate and cooperate with them.
5. Awareness of the roles and responsibilities of a public health nurse, and the ability to practice with a strong sense of ethics.
6. The motivation and self-learning ability for lifelong study needed to enhance and develop the maintenance and promotion of local public health, the well-being of local society, and public health nursing.

Curriculum Policy

To educate personnel with the abilities listed in the certificate of completion policy, the Graduate Course in Public Health Nursing organizes and implements curriculum as outlined below:

1. The curriculum is comprised of the specialized field, related fields, and on-site training.
   1) In the specialized field, students learn the objectives and targets of public health nursing, the roles of a public health nurse, and the obligations and ethics as a professional in their specialized field.
   In addition, students learn the knowledge and skills required to assess the individuals, families, regions, and communities which are the subject of public health nursing, and to solve health problems faced by the local society.
   2) In related fields, students gain knowledge to support the specialized fields of epidemiology, health statistics, health welfare administration, and more. They also learn the communication skills to respond to diversity of society and the environment, which are closely related to public health, as well as learning about career design as future public health nurses.
   3) In on-site training, students integrate the knowledge and skills learned in the classroom with experiences in government, schools, industry, and communities, in order to improve their practical ability in public health nursing.
2. Develop a learning process of proper quality and quantity that includes preparation and post-development in order to further build the knowledge and skills required for the study and practice of public health nursing.
3. Develop a curriculum with a learning environment that allows each individual student to acquire a high standard of knowledge and skills by actively incorporating active learning in small groups and providing learning support to suit individual situations.
4. Establish opportunities for students to imagine their future careers and begin to form professional identities, such as through exchange with currently active public health nurses working in government, schools, and industry, as well as local internships, in order to help them to form concrete career plans as future public health nurses.

Educational Characteristicsion

In order to achieve these educational goals, the curriculum comprises a group of subjects covering a wide array of knowledge and skills that will form the foundation for abilities required of public health nurses to support individuals and groups with complex health problems and cooperate with regions and organizations to form policies.
Unique characteristics of this program include distinctive subjects such as disaster public health guidance and career design seminars, as well as long-term on-site training in a variety of facilities, which allows students to acquire strong practical skills.
While there is a wide variety of topics that future public health nurses need to learn, this program has a balanced schedule with flexibility for practical learning and deep thought.
Classes are mainly taught by the University's instructors who specialize in public health and local nursing, with support from instructors in related fields and teachers who are active in the public health field in Hokkaido.

Course Subjects *( ) indicates the number of credits

Speciality Coures	Related Coures	On-site Practice
Pulinciple of Public Health Nursing 1 (1)	Epidemiology (2)	Clinical Practicum in Publuic Health Nursing 1 (2)
Pulinciple of Public Health Nursing 2 (1)	Health Statistics (2)	Clinical Practicum in Publuic Health Nursing 2 (2)
Public Health Nursing Administration (2)	Health Care and Welfare Administration 1 (2)	Clinical Practicum in Publich Health Nursing Administration (1)
Activity Development Theory of Public Health Nursing 1 (1)	Health Care and Welfare Administration 2 (2)	Clinical Practicum in Occupational Health (1)
Activity Development Theory of Public Health Nursing 2 (1)	International Culture and Communication (1)	Clinical Practicum in School Health (1)
Public Health Nursing Research (2)	Career Design Seminar (1)	Clinical Practicum in Community Comprehensive Care (1)
Environmental Heallth (1)		
Family Nursing (1)		
Home Care Nursing (1)		
Health Education 1 (1)		
Health Education 2 (1)		
Parent and Child Health Guidance (1)		
Adult Health Guidance (1)		
Elderly Health Guidance (1)		
Community Mental Health (1)		
School Health Guidance (1)		
Occupational Health Guidance (1)		
Disaster Health Guidance (1)		

30 Subjects
Total of 38 Credits
(all required)

Study Period: 1 year
(max. 15 students)
Obtainable Qualifications:
- Eligibility for the National Public Health Nursing Examination
- Eligibility for the First-Class Health Supervisor Examination after passing the National Public Health Nursing Examination

Graduate Course in Midwifery

Educational Goals

The Graduate Course in Midwifery has set the following educational goals to realize its education philosophy and to cultivate the basic knowledge and skills necessary for midwives to meet society's needs.

1. Educate professionals who have the knowledge and skills necessary to support mothers during pregnancy, delivery, and postpartum, in addition to assisting families with child rearing and supporting the health of women throughout their lifetime.
2. Educate professionals with the ability to take a multidimensional and multifaceted approach to women's health issues with a wide perspective.
3. Educate professionals with the ability to respect diversity of women and families and establish a relationship of mutual trust with them while providing support.
4. Educate professionals with the ability to take the initiative to fulfill the responsibilities and commitments required of a midwife in practical activities using professional knowledge and skills while collaborating with professional in other fields.
5. Educate professionals who act logically, and with respect for human dignity and life in accordance with the ethical principles required of midwives.
6. Educate professionals to have the determination to make a continuing effort towards personal development, to maintain and improve their midwifery skills, and to explore the field of midwifery, with the aim of providing high-quality services.

Diploma Policy

The Graduate Course in Midwifery issues certificates of completion to students who have acquired the expertise and practical skills required of a midwife working in local maternity and child health and perinatal care, and earned the required number of credits. These students are also qualified to sit for the National Midwifery Examination.
Students must have:

1. The skills and knowledge of midwifery and related fields needed to assess normal development and quickly identify abnormalities during pregnancy, delivery, and postpartum, and the ability to apply these skills in practice.
2. The foundational ability needed to correctly provide midwifery care tailored to fit the needs of women, children, and families as they go through the process of normal development during pregnancy, delivery, and postpartum.
3. The ability to accurately identify the development process of women and children who are at increased risk during pregnancy, delivery, and postpartum, and to provide midwifery care as necessary.
4. The ability to build and develop a relationship of trust with women in need of midwifery care and their families, especially during pregnancy, delivery and postpartum.
5. The ability to enhance the solidarity of midwives as a team for the fulfillment and development of midwifery practices and to cooperate and collaborate with other healthcare and medical professionals as part of a healthcare team.
6. The ability to address various issues surrounding maternal and child health and perinatal care in communities and take action to fulfill and improve such care.
7. The ability to enhance professionalism as a midwife and further pursue the study of midwifery.

Curriculum Policy

The Graduate Course in Midwifery organizes and implements a curriculum as outlined below in order to educate professionals as described in the certificate of completion policy.

1. The curriculum consists of basic midwifery, practical midwifery and fields related to midwifery.
   1) The basic midwifery field helps students to learn about the role of midwives as supporters of sexual and reproductive health and about the responsibilities and ethics of midwives as professionals, in addition to learning about the goals and objects of midwifery and developing knowledge of perinatal care and fetology & neonatology, as the basis of midwifery practice.
   2) The practical midwifery field helps students to learn about the assessment of women from pregnancy through the postpartum period, as well as newborn babies of different health levels. Students learn the basics of midwifery care to improve physical preparedness and resilience leading up to childbirth, and get to see how midwifery care is managed at various facilities. In training, students can integrate knowledge and skills through midwifery activities and improve their practical ability.
   3) The fields related to midwifery help students to learn about support for women raising children and their families and the role of midwives in solving maternal and child health issues in local communities. In addition, students can deepen their insight into midwifery practice based on the latest knowledge and develop the ability to offer effective care.
2. Develop a learning process of proper quality and quantity that includes preparation and post-development in order to further build the knowledge and skills required for the study and practice of midwifery.
3. Active learning in small-group settings is used more frequently, and tailored guidance is provided to better support learning by students in order to deliver the curriculum in an educational environment which encourages individual students to acquire high levels of knowledge and skills.
4. Students are given opportunities to imagine their future careers and begin to form professional identities, through exchange with currently midwives working in perinatal medical centers, hospitals, birthing centers, and local communities, in order to help them to form concrete careers plan as future midwives.

Education Characteristics

To achieve these educational goals, the curriculum consists of subjects in areas that form the foundation of midwifery, practical areas that are directly related to midwifery care, and related areas that enhance the quality of midwives.
In particular, campus exercises incorporate roleplaying with an emphasis on interaction with people, where students get to experience realistic situations in order to improve their care skills as a midwife.
Classes are mainly taught by the University's instructors who specialize in midwifery and obstetrics & gynecology, with support from instructors in related fields and teachers who are active in the maternal and child health and perinatal care field in Hokkaido.

Course Subjects *( ) indicates the number of credits

Basic Coures	Practical Coures	Related Coures
Introduction to Midwifery (1)	Midwifery Diagnosis and Care1 (2)	Parent and Child Health Guidance (1)
Perinatal Medicine 1 (1)	Midwifery Diagnosis and Care2 (3)	Interprofessional Collaboration in Child-rearing Support (1)
Perinatal Medicine 2 (1)	Midwifery Diagnosis and Care3 (2)	Midwifery Research (1)
Fetology/Neotology (1)	Comprehensive Health Care in Perinatal Period (1)	
Reproductive Health (1)	High-risk Care in Perinatal Period (2)	
	Health Education (1)	
	Midwifewry Management (2)	
	Midwifery Practicum 1 (8)	
	Midwifery Practicum 2 (2)	
	Midiwfery Practicum 3 (1)	

18 Subjects
Total of 32 Credits
(all required)

Study Period: 1 year (max. 15 students)
Obtainable Qualifications:

- **Eligibility for the National Midwifery Exam**
- **Eligibility for the Birth Control Instructor (Reproductive Health Supporter) Examination**
- **Neonatal Cardiopulmonary Resuscitation (NCPR) Specialist Course (A Course) Completion Certificate**

Founding Principles

Sapporo Medical University Hospital aims to provide safe and high-quality medical services that will earn the trust and satisfaction of patients. We aim to contribute to healthcare in Hokkaido, and we engage in advanced medical research and development and work to educate highly skilled medical professionals with strong character.

Hospital Overview

Sapporo Medical University Hospital 30 clinical divisions and 922 inpatient beds. It provides advanced, state-of-the-art medical care, including emergency medicine, cancer treatment and regenerative medicine, and also plays a vital role as a medical institution that assists the development of local medical services and accepts patients from remote areas in Hokkaido in cases of disasters.
In 1996, the hospital was certified as an advanced treatment hospital capable of providing advanced medical treatment, developing medical technologies, and offering training and internships. In 2002, Hokkaido's first advanced emergency medical care center was established within the hospital to accept critical emergency patients and provide advanced specialized medical treatment. The hospital also functions as an AIDS treatment core hospital (Hokkaido HIV Block Hospital), a core disaster medical hospital, the Hokkaido Rehabilitation Support Center, a regional cancer center, and a center for liver disease treatment coordination.
Medical treatments based on the University's independent basic research, such as novel cancer vaccine therapy and nerve regenerative medical techniques for cerebral infractions and spinal cord injuries, are attracting the attention of medical experts in Japan and abroad. The hospital uses cutting-edge medical care technology which includes the introduction of state-of-the-art medical facilities such as a hybrid operating room, which has the da Vinci Surgical System and cardiovascular/cerebrovascular x-ray equipment, and the establishment of the Genetic Counselling Clinic for genetic diagnosis.
As a university hospital, it also plays a central role in clinical education and research, providing society with outstanding medical professionals by educating a wide range of personnel, organizing seminars for specialists, and other efforts.

Clinical Divisions

Division of Gastroenterology and Hepatology	Division of Pediatrics
Division of Rheumatology	Division of Ophthalmology
Division of Cardiovascular, Renal and Metabolic Medicine	Division of Dermatology
Division of Respiratory Medicine and Allergology	Division of Plastic and Reconstructive Surgery
Division of Medical Oncology	Division of Urology
Division of Hematology	Division of Otolaryngology
Division of Neurology	Division of Neuropsychiatry
Division of Surgery, Surgical Oncology and Science	Division of Radiology Oncology
Division of Cardiovascular Surgery	Division of Diagnostic Radiology
Division of Thoracic Surgery	Division of Anesthesiology
Division of Orthopaedic Surgery	Division of General Medicine
Division of Neurosurgery	Division of Oral Surgery
Division of Neural Regenerative Medicine	Division of Rehabilitation
Division of Gynecology	Division of Medical Genetics and Genomics
Division of Perinatal Medicine	Division of Infectious Disease Internal Medicine

Central Clinical Divisions

Division of Hospital Administration	Medical Liaison Welfare Center
Division of Health Care Administration and Management	Nutritional Support Center
Division of Hospital Pharmacy	Center for Graduate Medical Education
Division of Laboratory Diagnosis	Center for Nursing Career Support
Division of Surgical Pathology	Division of Medical Information
Division of Radiology and Nuclear Medicine	Clinical Research Support Center
Division of Operating Facilities	Clinical Trial Center
Division of Linen and Appliance Supply	Cerebral Function Center
Division of Rehabilitation	Digestive Organ Center
Advanced Critical Care and Emergency Center	Diagnostic Imaging Center
Division of Intensive Care Medicine	
Division of Medical Safety and Risk Management	
Division of Infection Control	
Clinical Engineering Office	
Division of Nursing	

Lobby

Cancer Genome Medicine

Abnormalities in the functioning genes can lead to diseases and cancer is a typical example of such a disease. Cancer genome medicine aims to clarify the characteristics of cancer by sequencing a large number of genes (comprehensive genomic profiling), mainly using cancer tissues, and to search for more effective drugs. Sapporo Medical University Hospital has been designated as a base hospital for cancer genome medicine and perporms anout 200 tests a year.

Our hospital allso holds weekly case conferences with partner hospitals in Hokkaido.

If the test results show that there is a drug that can be effective, we will consider using that drug based on insurance approval and clinical trials. The results of the tests may also reveal that the patient has a hereditary tumor. Such information can be useful not only for patients but also for their blood relatives. In addition to providing accurate information about hereditary tumors, the Division of Clinical Genetics provides genetic counseling to answer the questions of patients and their families and to address their concerns.

Latest technology: da Vinci robotic-assisted surgery

The da Vinci surgical system enables more delicate and accurate surgery, thanks to its high-resolution, high-magnification 3-D images that allow the depth of the operative field to be clearly viewed, its numerous joints that can freely articulate in different directions and its tremor-filtration technology.

The robotic-assisted surgical system enables minimally invasive surgical procedures (reducing patient burden by reducing pain and bleeding) with the advantages of shorter recovery times and minimization of scaring.

The da Vinci surgical system is used at our hospital in the Departments of Urology, Digestive, General, Mammary and Endocrine Surgery, Thoracic Surgery, Otolaryngology, and Gynecology. After the FY 2018 revision of medical treatment fees covered by the national health insurance program, surgeries for the treatment of prostate cancer, lung cancer, kidney cancer, as well as total gastrectomy, rectectomy, and endometrial cancer are now covered by insurance.

The numbers of surgical procedures performed successfully with the use of the robotic-assisted surgical system are shown below:

Department	2020	2021	2022
Urology	79	79	61
Surgery, Surgical Oncology and Science	95	84	162
Thoracic Surgery	58	68	60
Otolaayngology	–	–	20
Gynecology	51	73	69
Totals	283	304	354

Neural Regenerative Medicine for Spinal Cord Injury

Sapporo Medical University Hospital began providing treatments using neural regenerative medicine for patients with spinal cord injuries on May 13, 2019.

Led by Department of Neural Regenerative Medicine Professor Honmou and Professor Yamashita of Orthopaedic Surgery, the program has gained attention both in Japan and abroad for its practical application of extensive clinical research results gathered over many years.

- Treatment Process

(1) Transfer to our hospital
Patients with acute spinal cord injury (immediately after injury) are eligible.

(2) Screening tests
Patients are tested to confirm that their conditions meet the requirements for treatment. Depending on the test results, certain patients may be excluded from the treatment.

(3) Bone marrow and blood sampling
Stemirac is a regenerative medical treatment product which is produced by cultivating mesenchymal stem cells taken from the patient's bone marrow. Peripheral blood are collected in order to use the patient's own blood serum for the culture.

(4) Mesenchymal stem cell cultivation
The mesenchymal stem cells from Step 3 are cultivated over two to three weeks at Nipro to 10,000 times the number collected (about 100 million cells). The cells are then tested for safety and quality before the product is finalized.

(5) Injection of regenerative medical product (Stemirac injection)
The product is administered intravenously to the patient in a peripheral vein over a period of 60 minutes.

(6) Rehabilitation
Befor and after the regenerative treatment, the patient undergoes initial rehabilitation at our hospital.
The patient is then transferred to a partner hospital for a full rehabilitation regimen.

Hybrid operating room

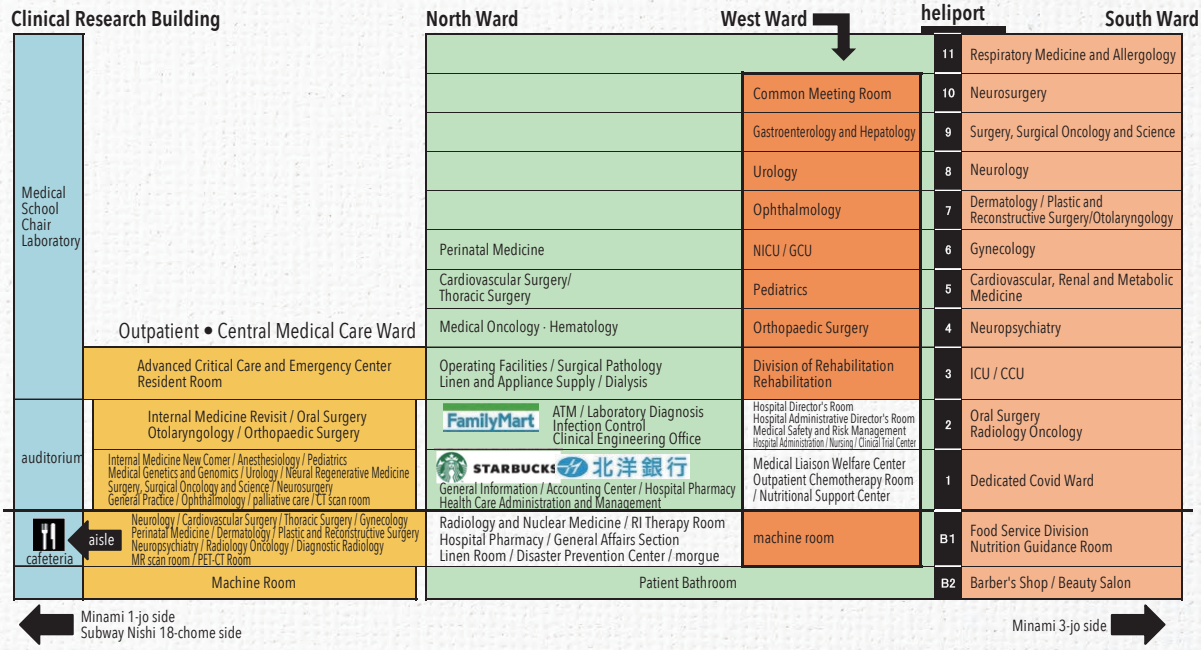
da Vinci Surgical System

Robotic-assisted surgery for prostate cancer

Heliport

Hospital Floor Guide

Data as of April 1, 2024



Center for Nursing Career Support

The Center for Nursing Career Support opened in April 2014, aiming to improve the quality of nursing practice and education by promoting cooperation and personal exchanges between the Nursing Division at University Hospital and the Department of Nursing of the School of Health Sciences and Graduate Course. The Center aims to play a central role in contributing to healthcare in local areas by supporting the career development of nursing staff and students, mutual cooperation in educating students in the Department of Nursing and facilitating the research of students there, and the training of new and midlevel nurses working in local hospitals.

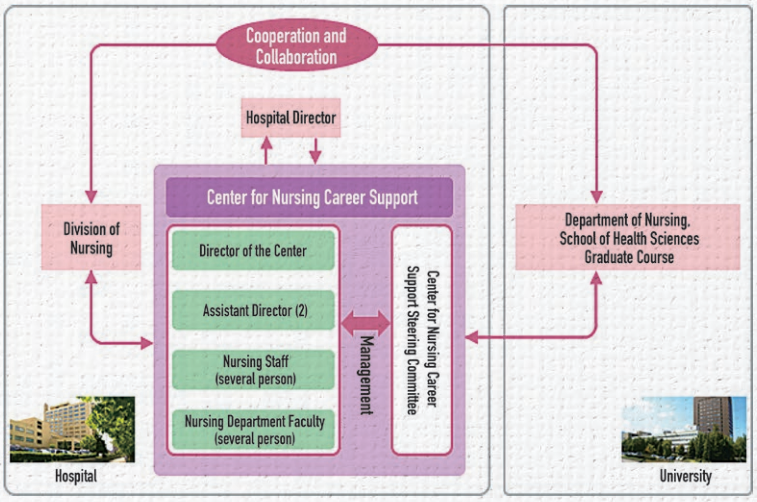
• Overview of the Center for Nursing Career Support

Activities of the Center

The Center provides an educational environment system to enhance the practical nursing skills of nursing staff at affiliated hospitals and nursing students at the Faculty of Health Sciences, and supports the career development of new and mid-career nursing staff and nursing staff in childcare, as well as educational activities for nursing students.

(Activities)

- For new nurses
- Contributions to local healthcare
- For mid-career nurses
- Practical Training Council
- Clinical Nurse Educator
- For students
- Career planning
- For nurses on childcare leave



Hospital Renovation

Currently, at Sapporo Medical University, renovations including extension work are being carried out at our hospital to improve its healthcare environment and enhance its medical functions in an effort to provide safe, reliable, and high-quality medical services.
Our West Ward opened in July 2018, and is equipped with upgraded four-bed and private rooms for patients, as well as an outpatient chemotherapy room, a clinical trial center, and a rehabilitation facility that have been relocated and upgraded.
Renovation of the existing facilities continued beginning in January 2019 to provide a more supportive environment for patients by constructing four-bed patient rooms and enhancing the medical functions of the Advanced Critical Care and Emergency Center, the Division of Operating Facilities, the Division of Intensive Care Medicine, and other divisions. Renovation is scheduled to be completed during 2024.

Outpatient Chemotherapy Room

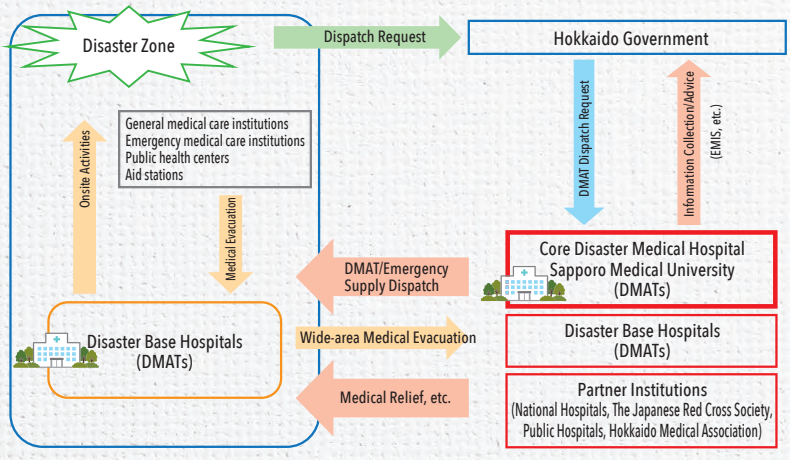
Clinical Trial Center

Core Disaster Medical Hospital

Since our hospital was designated as Hokkaido's only Core Disaster Medical Hospital in 1997, we have functioned as a hub for coordination with the other disaster base hospitals (33 facilities) providing vital medical support in disaster situations for critical patients, including advanced emergency medical care for critical patients, wide-area medical evacuation and the dispatch of medical relief teams.
As an emergency medical care facility, our hospital maintains a system to prepare for large-scale disasters (situations with many sick and injured). Periodic training is conducted using wide-area disaster/emergency medical information systems to dispatch medical teams (the Disaster Medical Assistant Team (DMAT) and the Japan Disaster Relief Team) to stricken areas and accept patients at times of disaster.
Our hospital dispatched a DMAT and medical relief teams to large-scale disasters in and outside of Hokkaido, including the Great East Japan Earthquake (March 2011), the Kumamoto Earthquake (April 2016), the Hokkaido Eastern Iburi Earthquake (September 2018), and the Noto Peninsula Earthquake (January 2024).

Disaster Medicine Cooperation System

• Medical Functions in Disasters (Emergencies) - Core Disaster Medical Hospital (Sapporo Medical University Hospital) - Local Disaster Base Hospitals (33 in each secondary health care zone) - DMAT Designated Health Care Institutions (34 in Hokkaido)	(Functions of Disaster Base Hospitals) Wide-area evacuation and acceptance/conveyance, etc., of patients Loaning of emergency supplies Dispatch of DMATs, etc.
• Wide-area Medical Evacuation - Firefighting/Disaster Prevention Helicopter (Hokkaido Air Rescue Team, Sapporo Fire Bureau, Japan Self-Defense Force, Japan Coast Guard, and Hokkaido Prefectural Police) - Air ambulance (central, northern, eastern and southern Hokkaido)	



[Team dispatched in response to the Noto Peninsula Earthquake]

In addition to emergency medical care training, Sapporo Medical University has been providing emergency medical care education since the 2017 academic year. This includes education on initial treatment at times of disaster and mental support for victims, through both lectures and practical training.

Department of Student Affairs

The Department of Student Affairs investigates issues related to campus life in general in order to provide students with a comfortable academic environment. The Department holds a monthly Student Committee meeting, which consists of teachers from the Department of Student Affairs, Academic Affairs Committee chairs of the School of Medicine and the School of Health Sciences and school doctors, to discuss topics on financial support for students, such as applications for tuition exemption and adoption of a scholarship system unique to the university, and to review student support methods and systems.
It also provides guidance and advice to student associations and clubs to prevent accidents and problems caused by alcohol consumption, etc. Teachers from the Department also plan and hold lectures for each faculty, department, and class year, and operate other initiatives to nurture ethics necessary for students aiming to be medical professionals.
Student Support Meetings began to be held in 2014 for members of the Student Committee and teachers in charge of student affairs to hear opinions and requests from student representatives and discuss them together with students, in order to improve the learning environment. By doing this, the Department aims to improve its student support systems.

Health Management Center

The Health Management Center specializes in health management for Sapporo Medical University students and teaching staff. The Center encourages students and staff to maintain and improve their health both mentally and physically, while physicians, public health nurses, registered nurses, and certified psychologists provide consultations and other necessary health management services.
The Center has an infirmary and a health counseling office. The infirmary provides first aid for injuries and illnesses, and implements infection prevention measures, as well as offering consultations as needed for students and staff with worries and concerns about their health.
At the student health counseling office, a full-time clinical psychologist is available for those in need of assistance regarding various concerns or problems that may arise as part of university life.


Health counseling office


Infirmary

Department of International Affairs and Medical Exchanges

Sapporo Medical University's international exchanges are promoted mainly by the Committee for International Affairs and Medical Exchanges and the Department of International Affairs and Medical Exchanges.
The Committee for International Affairs and Medical Exchanges, which serves as an advisory body to the President, discusses basic matters related to international exchanges at the University.
The Department of International Affairs and Medical Exchanges is positioned as an administrative body to perform clerical work related to international exchanges.


Interaction with JICA trainees


English Language Study at the University of Alberta


Mr. Shimada and Mr. Takahashi, a fourthyear medical student at Sapporo Medical University, participated in the Korea University International Medical Student Research Presentation.

International Exchanges

International Medical School Exchanges

Sapporo Medical University actively promotes international academic and student exchange programs, and has exchange agreements with universities in Finland, Canada, China, the United States, South Korea, and Russia. These activities are founded in the following International Exchange Policy.

Sapporo Medical University International Exchange Policy

1. Education
   Educate personnel with a global perspective and a sense of international community, who can contribute to the development of healthcare, medical science, and health sciences in Japan and across the world.
2. Globalization of Research and Healthcare
   Promote medical science, health sciences, and advanced medical care that will be well-regarded internationally, through exchanges and collaboration with international universities and research institutions.
3. International Contributions
   Contribute to the improvement of healthcare, medical science, and health sciences across the world through exchanges with medical institutions and institutions of medical education overseas, making use of the advanced healthcare skills and knowledge at Sapporo Medical University.

Year of exchange with partner universities

1977 ------	University of Helsinki, University of Turku, University of Oulu, University of Tampere, University of Eastern Finland
1983 ------	University of Alberta
1984 ------	China Medical University
1994 ------	University of Massachusetts Medical School
2008 ------	Jiamusi University
2011 ------	The Catholic University of Korea
2019 ------	Korea University
2020 ------	University of California San Francisco

International Contribution

To improve standards of health and welfare for people worldwide, we actively dispatch researchers to developing countries and other parts of the world, and welcome trainees from overseas, among other activities.
We dispatch teaching staff to areas affected by large-scale disasters as requested by connected organizations. As a part of the "Training Program for Japanese Descendants" commissioned by the Japan International Cooperation Agency (JICA), we accept trainees of Japanese descent from Central and South America, as well as other initiatives.

Scholarly Communication Center

University Library

The library is located on the 2nd to the 4th floors of the Basic Medical Research building. It is open for people belonging to the University 24 hours a day, every day, except during the New Year's Holidays, offering support for academic study and research at all times of day.

The library features spaces for group discussion and learning, special seats for focused study, as well as rooms that can be reserved for seminars or research.

We have desktop and laptop computers available for use, as well as a Wi-Fi environment that allows library guests to use their own devices.

We also strive to provide online materials that can support everyone belonging to the University, even from off campus. These include Japanese and international journals, e-books, and reference works.

Based on the University's fundamental ethos, we work actively to provide information through services providing copies of documents, etc. for medical professionals living in Hokkaido, including our graduates, as a part of our contribution to local healthcare.

Library entrance

Carrel desks

Department of ICT

The Department grew out of the former Information Center of Computer Communication, which had been established in April 1999. It aims to promote effective utilization of information technologies that support education and research activities, and contribute to regional medical care in Hokkaido. Under this mission, the Department is engaged in the following activities:

(1) Supporting the development and operation of information systems;
(2) Implementing information security measures and awareness-raising activities in the University;
(3) Supporting research activities through providing academic literature evaluation tools, data analysis software, and more;
(4) Supporting educational activities through providing an academic environment with computer suites available for coursework and self-study, freely accessible networks, and much more; and,
(5) Supporting physicians working in regional medical care, by providing remotely accessible medical information databases, video conference systems, and more.

The department continues to gather information concerning the continuously evolving field of ICT, and continuously exploring the newest forms of ICT needed by the University.

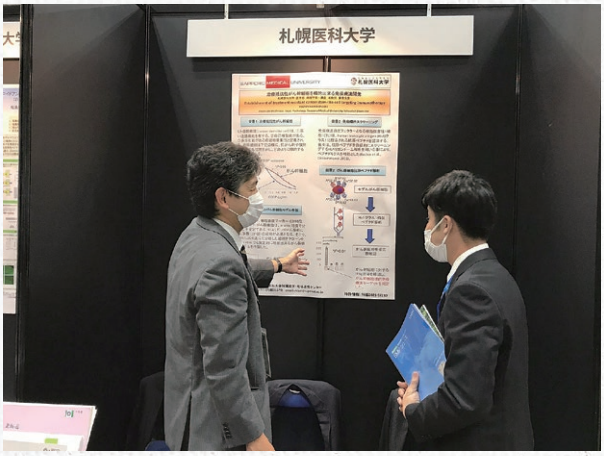
Computer Suite (Basic Medical Research Building 5F)

Computer Suite (School of Health Sciences Research Building 1F)

Community and Industry Collaboration Center

Research Department

The Research Department aims to support the aquisition of external funds as the point of contact for the various activities at the University aimed at contributing to society.
The department supports University researchers in acquiring research funds, as well as collaborating with other universities, institutions, and communities to promote education, research, and academia-industry collaborations.



Exhibition and Presentation of Sapporo Medical University's research

Development Department

The Development Department manages the research findings of the University by utilizing patents or other appropriate measures. The department also provides consultation regarding research strategies to commercialize patented technologies. It also mediates collaboration between the University and companies and supports the formation of agreements (joint research agreements, funded research agreements, confidentiality agreements, material transfer agreements, etc.) necessary for such collaboration and aquisition of reserch and development funds, etc.

[Intellectual Property Education]

Educational courses on intellectual property are provided to graduate students, medical researchers, and healthcare practitioners. These courses are designed to meet the diverse needs and interests of attendees and cover a wide range of topics including successful cooperation between businesses and universities, the relationship between drug development and research as well as intellectual property.

Patent Applications

2020

Basic Application	6
International Applications	8
Foreign Applications	36
Examination Requests (Japan)	10
Registrations	34

2021

Basic Application	6
International Applications	7
Foreign Applications	27
Examination Requests (Japan)	9
Registrations	29

2022

Basic Applications	2
International Applications	4
Foreign Applications	13
Examination Requests (Japan)	11
Registrations	42

Funded Departments

Funded departments are established to promote and enhance academic research activities at the University using funds provided by companies and other organizations, with the aim of promoting academia-industry collaboration and supporting scholarship. As of April 2024, there are five funded departments.

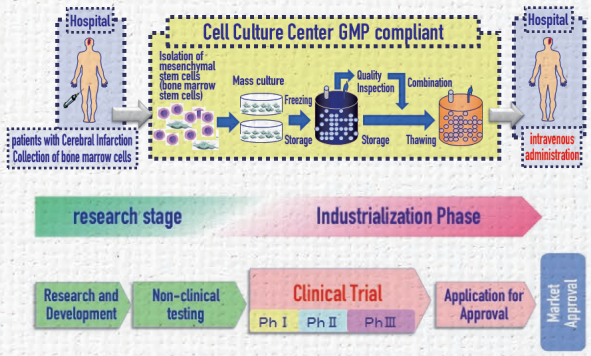
Ain Holdings & Nitori Co. Endowed Department of Palliative and Supportive Medicine

This department was established in April 2013, with funding from Ain Pharmaciez Inc. (renamed AIN HOLDINGS INC. in November 2013) and NITORI Co., Ltd.
To facilitate the development and wider acceptance of team medical care for palliative treatment through interdisciplinary cooperation, training is provided to palliative care medical staff, while we work to raise awareness among patients, their families and the public. The Palliative Care and Cancer Consultation Salon, which had been operated by this department until March 2013, is being further developed to provide better service. In addition, cooperation with the Cancer Treatment Consultation Center established at the University Hospital's Cancer Research Institute is being enhanced and organized information sharing is being promoted in an effort to provide relief for the pain and suffering of cancer patients and their families.

Seminar open to the public

Advanced Regenerative Therapeutics Department

The Advanced Regenerative Therapeutics Department was established in February 2014, with funding from Nipro Corporation.
This department works towards practical application of the outcomes of regenerative medicine clinical trials using autologous bone marrow cells to treat cerebral infarction, spinal cord injury, amyotrophic lateral sclerosis, stroke, head injury, dementia, and more.
To achieve this goal, we have implemented a range of technical development projects, including the development of production facilities and materials and the establishment of quality verification methods.



Department of Emergency Medical Services, Life Flight and Disaster Medicine

This department was established in April 2016. The department's goals for research, etc. are as follows:
- Research emergency medical services in Hokkaido, while developing programs for educating Emergency Life-saving Technicians and other emergency staff, and contributing to the advancement of emergency medical services care.
- Perform research for the establishment of a life flight system appropriate for Hokkaido, where medical resources are very unevenly distributed across a wide area, while also researching emergency helicopter operations, systems for cooperation with life flight-related organizations and the introduction and operation of fixed wing aircraft prioritized for medical use.
- Contribute to the establishment of a healthcare system that can work effectively in emergencies, by researching disaster medical care in Hokkaido, and developing programs for educating disaster medical care workers.

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- Contribute to the establishment of a healthcare system that can work effectively in emergencies, by researching disaster medical care in Hokkaido, and developing programs for educating disaster medical care workers.

Inflammatory Bowel Disease Telemedicine Course

The number of Japanese patients with inflammatory bowel disease (IBD) is estimated at approximately 290,000. Patients with IBD often develop at a young age and require long-term treatment during their lives. There are a few IBD experts in Hokkaido; therefore, patients should travel long distances to visit specialized facilities and receive medical care for themselves. We focused on telemedicine and established this endowed course so that patients with IBD could receive appropriate treatment anywhere on the vast island of Hokkaido. This course aims to promote the education of physicians and medical staff involved in treating and managing IBD, play a leading role in training them, and equalize IBD treatment in Hokkaido. We expect to reduce the burden on patients who have to travel long distances to see doctors at specialized medical facilities and to enhance the education of young doctors working in rural areas in IBD treatment.

Our efforts won a prize in the 2022 Winter Digi-den Koshien sponsored by the Cabinet Secretariat for "Establishment of a Telemedicine System Aimed at Uniform Medical Care for Inflammatory Bowel Disease Patients in Hokkaido," and we received an award at the Prime Minister's official residence on March 9, 2023. The project was also featured in the Hokkaido Cultural Broadcasting Co.,Ltd TV Program on September 24, 2023, drawing attention to the project's activities.

Specialized Study Departments

Specialized Study Departments at Sapporo Medical University are operated through competitive funding or funding from outside sources other than donations. They are established with the goal of developing and vitalizing our academic research activities, and as of April 2024, there are currently two Specialized Study Departments in operation.

Department of Minami-Hiyama Rural Medicine

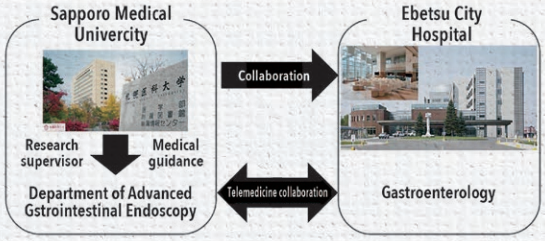
Starting in April, 2021, the Department is engaging in surveys and research related to local healthcare education using the Minami Hiyama area as a resource, the uneven distribution of physicians, cooperation among hospitals and clinics, and the establishment of a telemedicine system. Initiatives include:

(1) Research on methods for teaching medical knowledge, skills, and attitudes to the medical students and physicians who support local healthcare;
(2) Curriculum Map VII. Research on setting educational outcomes based on the five competencies needed for local healthcare, and on teaching methods;
(3) Educators from the Department also work at the Center for Local Healthcare Research and Education, performing research on specialization and collaboration among medical institutions performed through the Minami Hiyama Medical Network; and,
(4) Organizing and using medical information from the Minami Hiyama Medical Network and verifying the conditions required for physicians to work in healthcare and research on remote islands and in isolated areas on a continuing basis.


Sunset on the Sea of Japan from near Hokkaido Esashi Hospital


Hokkaido Esashi Hospital

Department of Advanced Gastrointestinal Endoscopy



The Department of Advanced Gastrointestinal Endoscopy was established in April 2023. Ebetsu City (Ebetsu City Hospital) and the Department of Gastroenterology, Sapporo Medical University are collaborating to implement an endoscopic digital telemedicine concept, train endoscopists, and develop new treatment methods for digestive diseases. Specific research activities are as follows.

(1) Establishment of an endoscopic clinic al (educational) system utilizing telemedicine and surve ys and research on the construction of a wide-area medical collaboration system, using the current status of regional medical care in the Ebetsu and Minami-Sorachi areas (urban suburbs and surrounding areas) as a research resource.
(2) Molecular biological analysis of samples obtained by endoscopic biopsy and endoscopic treatment, and promotion and development of advanced treatment of gastrointestinal disease, including minimally invasive endoscopic treatment.

In the future, in order to enable early detection and early treatment of gastrointestinal cancer patients in Hokkaido, wherever they may be, these far We will proceed with the construction and implementation of an endoscopic system using the Distant Therapy.

Clinical Research Activities, Modern medical care

Regenerative medicine for cerebral infarctions and spinal cord injuries (investigator-initiated trials)

Since 1990, Sapporo Medical University has repeatedly conducted transplantation experiments on animal models of cerebral infarction and spinal cord injuries, using stem cells derived from various donors. The University specifically focuses on mesenchymal stem cells as effective donor cells, and has reported many basic research results that show the high therapeutic effectiveness of intravenous administration of these cells.

Based on favorable results in basic research, clinical research has been conducted since 1997 on the intravenous administration of autologous mesenchymal stem cells cultured using autoserum for cerebral infarction patients, and the therapeutic efficacy and safety of this treatment have been verified.

Investigator-initiated trials are being conducted using autologous mesenchymal stem cells as a new investigational therapy with the aim of realizing their practical application as a pharmaceutical product (a regenerative medicine product) for general medical treatment under the Pharmaceutical and Medical Device Act (PMD Act).

Preclinical tests (GLP, and non-GLP) are being conducted in consultation with the Pharmaceuticals and Medical Devices Agency (PMDA) to ensure the quality and safety of the new treatment, which is manufactured to GMP standards at the Cell Processing Center (CPC) of Sapporo Medical University.

The treatment is composed of "autologous mesenchymal stem cells (STR01) (dosage form code: injection C1)", and the manufacturing method is "culture (the culturing of mesenchymal stem cells in bone marrow collected from a patient using autoserum)".

For cerebral infarction, the clinical trial notification was submitted in February 2013 and investigator-initiated trials (Phase 3) are under way.

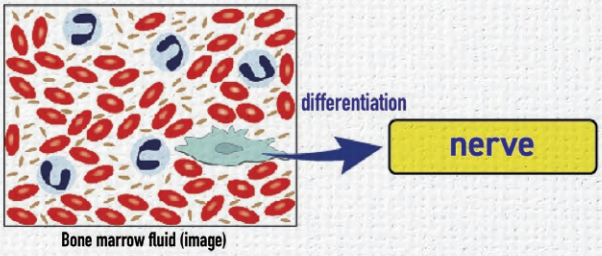
For the treatment of spinal cord injury, we conducted an investigator-initiated clinical trial from November 2013 to February 2017.

Based on the favorable results of this clinical trial, STR01 was authorized under the SAKIGAKE Designation System for fast-track review by the Ministry of Health, Labour and Welfare in February 2016. Nipro Corporation, which jointly developed STR01, submitted the pharmaceutical application to the Ministry of Health, Labour and Welfare in June 2018. After the six-month review period, the Ministry of Health, Labour and Welfare gave conditional, time-limited approval for STR01 on December 28, 2018.

What are mesenchymal stem cells?

Mesenchymal stem cells (MSCs) account for 0.1% of bone marrow cells and can differentiate into visceral, vascular, bone/cartilage, fat, muscle, and nerve cells.

According to verification using cell surface markers, the cells have markers, CD34 (−), CD45 (−), CD73 (+) and CD105 (+).They are flat, fusiform cells approximately 10μm in diameter, and adhere to plastic in vitro.



Treatment using autologous mesenchymal stem cells

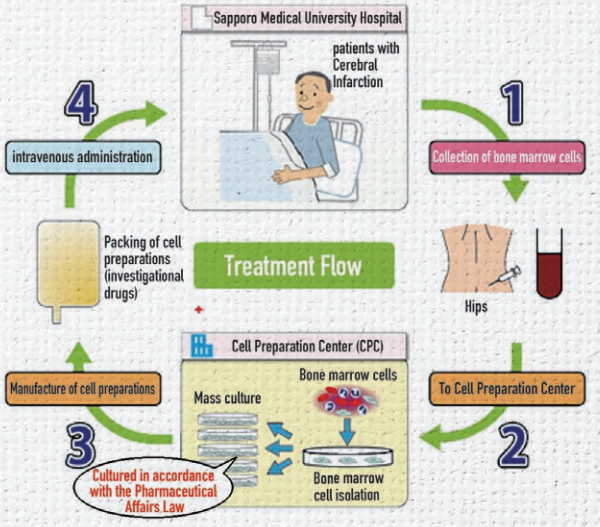
[Treatment Process]

(1) Bone marrow is collected from the ilium of a cerebral infarction patient under local anesthesia.

(2) Target cells are separated and cultured at CPC to amplify the cell population by a factor of 10,000 in approximately 2 weeks

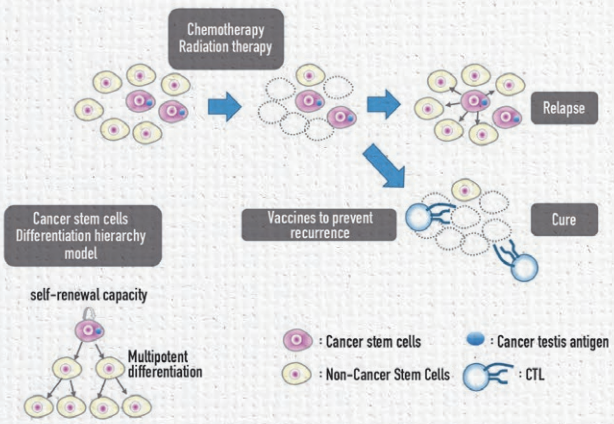
(3) The cell preparation is produced by sealing approximately 100 million cells in a 40-ml bag.

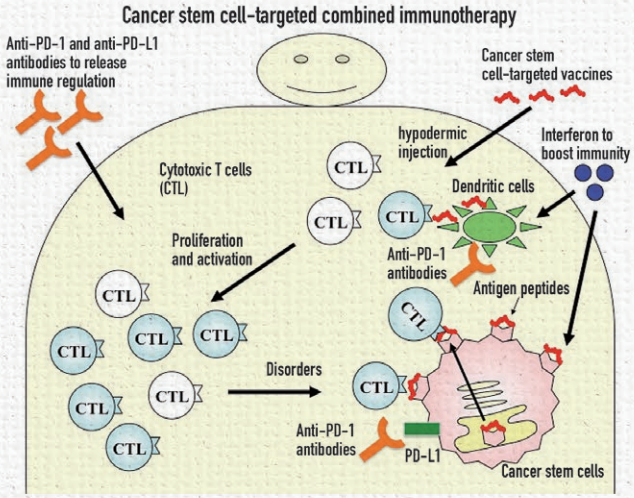
(4) One dose of the preparation is administered intravenously (over 30 to 60 minutes).



Immunotherapy Targeting Cancer Stem Cells

One in three Japanese people die of cancer. The three major standard cancer treatments are currently: (1) Surgery, (2) Chemotherapy and (3) Radiotherapy. Immunotherapy is now being established as the fourth standard cancer treatment.
However, immunotherapy has achieved limited success. It is effective in only about 20% of advanced cancers, and a major limitation is its insufficient effect on many types of cancer.
Also, while the original function of the immune system is to prevent disease, no cancer-preventive effect is expected from the current immunotherapy.
To combat this problem, we are continuing to work to advance research and development of immunotherapy by targeting cancer stem cells.
Comparing cancer to a beehive, the cells known as cancer stem cells have recently come to be seen as having a role similar to queen bees, in that a small subpopulation of cancer cells that has higher tumorigenic capacity, longer survival potential and treatment resistance. These cells are thus thought to be central to cancer recurrence and metastasis.
Our recent studies revealed immunopathological properties of these "queen bee" cells, and now we are preparing clinical trials of novel immunotherapy targeting cancer stem cells in collaboration with clinical departments, aiming to treat cancer and prevent recurrence and metastasis.





Biomedical Museum

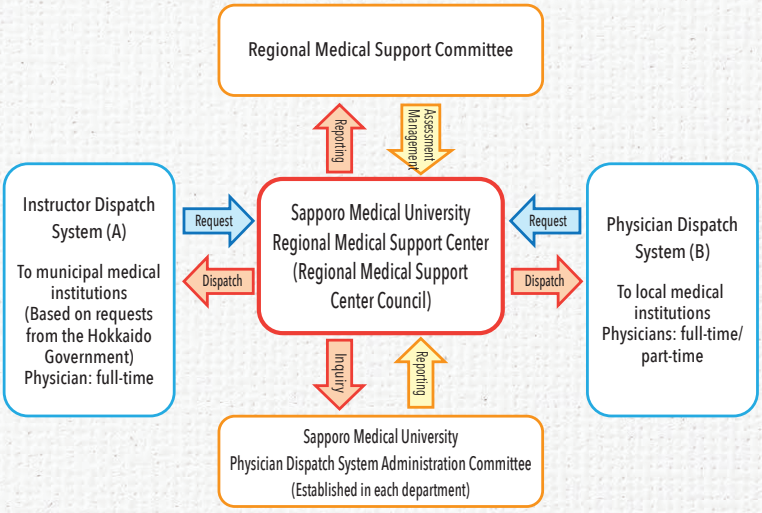
Established in April 1972, the Biomedical Museum is operated by a director and two full-time staff members. It comprehensively collects, stores, creates, and systematically displays medical and biological specimens and relevant documents, and thereby contributes to the enhancement of the University's education and research.
The museum houses a total of over 45,000 specimens, including human specimens in the fields of anatomy, pathology, forensic medicine, and others, as well as a wide range of macro/micro slides. The University takes pride in the fact that the museum is considered one of the nation's top-level facilities.
In response to the recent increases in the number of institutions offering medical education, the Biomedical Museum provides study tours for these students.

Biomedical Museum Entrance

Social Contributions

Dispatching Physicians

Sapporo Medical University promotes cooperation with the Hokkaido Government and related medical institutions and dispatches physicians to prefectural hospitals and other local public medical institutions, in order to play an active role in creating a system for providing local medical services in Hokkaido.
In addition, the University unified its physician dispatch system in 2009 by establishing the Regional Medical Support Center under the Sapporo Medical University Regional Medical Support Committee, in order to respond promptly and smoothly to requests for doctors to provide emergency medical services and requests from local medical institutions for doctors who can provide medical support.



(A) Instructor Dispatch System (Request from the Hokkaido Government)

A system in which the University dispatches instructors to serve as full-time doctors in areas that lack doctors. Under this system, instructors are assigned to medical institutions, selected by the Regional Medicine Support Center Council based on requests from the Hokkaido Government or municipalities, for a maximum period of four years in principle.

(B) Physician Dispatch System (Medical Service Support)

After considering feasibility, physicians are dispatched based on requests from regional medical institutions.

Local Contributions by the School of Health Sciences

Sapporo Medical University was established to respond to the needs of the people of Hokkaido, and is a driving force for regional healthcare in Hokkaido.
In line with our fundamental ethos, "contributions to community healthcare," the School of Health Sciences strives to meet Hokkaido's needs through various forms of social cooperation and regional contribution, and to improve healthcare, medical care, and welfare services. We work to educate personnel capable of supporting health and medical services in Hokkaido by encouraging graduates to take jobs in Hokkaido, and we train medical and healthcare professionals who can contribute to the community.

The School of Health Sciences promotes social cooperation and regional contribution based on the following principles.

The University contributes to the improvement of the local healthcare environment and people's wellness standards by returning the academic and scientific achievements of the School of Health Sciences to the local community through social cooperation and collaboration, as well as interaction with residents.

- We endeavor to promote the health of people living in Hokkaido by cooperating and collaborating with local communities to return the results of our research to them.
- We provide lifelong learning opportunities related to health through public lectures and by dispatching speakers to local communities.
- We strive to further improve the practical skills of medical professionals in Hokkaido, such as nurses, physiotherapists and occupational therapists, and support graduates who are involved in regional medicine.
- We support both faculty and students in their efforts to collaborate with and contribute to their local communities, actively disseminating information regarding their efforts.

Main Activities

Support for Lifelong Learning
- Public lectures
- Lectures at high schools
- University tours for junior/senior high school students

Support for Health Promotion
- Various activities related to health promotion

Support for Training Specialists
- Contributing to communities by training Hokkaido's nurses
- Recurrent education for rehabilitation personnel by the PT/OT Departments

Support for Graduates
- Training sessions, seminars and social events

Comprehensive Partnership Agreements with Private Companies

Sapporo Medical University has been conducting comprehensive collaborative projects with partner companies since 2006 to contribute to mutual development through industry-university cooperation and to improve regional health, medical and welfare services in Hokkaido.
We currently have agreements with 11 companies and intend to undertake various new activities with these partners to further improve education, research, and clinical services and to contribute to regional medical care in Hokkaido.

Comprehensive Partner	Tie-up Date	Main Activities
The Hokkaido Shimbun Press	August 2006	• Healthy Life Seminar, held once each in Asahikawa, Otaru, and Obihiro, and three times in Sapporo, in 2019 • COVID-19 Countermeasures for Hokkaido newspaper feature, published from time to time since 2020
Hokuyo Bank	June 2008	• The Power of Medicine–From the Front Line at SMU: Medical Seminar for Hokkaido Residents, held in 2023 • Consultations for people wishing to bequeath to Sapporo Medical University, provided since 2021
HABA Laboratories Inc.	November 2012	• Makeup service for University Hospital inpatients, provided 2012–2017
HORI	May 2013	• Jelly donations for University Hospital inpatients • Where Good Flavors Lead food education talk event with Keiko Takeshita, held in Sapporo in 2019 • Christmas Tree Lighting & Donation Ceremony, held in Sapporo in 2019 • Hori Confectionery–Plus Chocolat, released in Jan 2021 Hori Confectionery–Perilla & Haskap Jelly, sold Apr 2015–Mar 2022 Hori Confectionery–Perilla & Haskap Gummy, jointly developed and released in Dec 2017
Daichimirai Shinkin Bank	June 2013	• Shibetsu Medical Cafe, opened in Shibetsu Town in 2023 • Daichi Mirai Moving School of Medicine Seminar, held in 2023
Rumoi Shinkin Bank	June 2013	• Medical Cafe, held online in Rumoi in 2021
Tokachi Mainichi Newspaper	May 2014	• Medical Seminar, held in 2023 • From the Laboratories of Sapporo Medical University, regularly published in print and online
Wakkanai Shinkin Bank	July 2014	• Medical Cafe, held online in Rishiri Town in 2021
Hokkaido Chuo Bus Co., ltd.	August 2014	• Health Management Seminar, held in Sapporo in 2023
Hokkaido Coca-Cola Bottling Co.,Ltd.	October 2018	• Mind and Body: Refreshment Academy, held in Sapporo in 2023
Hokkaido Television Broadcasting Co.,Ltd.	February 2020	• Sapporo Medical University 70th anniversary introductory program, published on HTB's Biz.com website in 2018 • From Hokkaido to the World Program, broadcast on HTB in 2022

[Projects with Main Partners]

• Hokuyo Bank

In 2023, the "The Power of Medicine From the Front Line at SMU: Medical Seminar for Hokkaido Residents " was held in person fo r the first time in four years, with Professor Masato Furuhashi of the Department of Cardiovascular, Renal and Metabolic Medicine giving a lecture on "It's Not Too Late to Start Now! Prevention of A ging of Blood Vessels (Arteriosclerosis) and Lifestyle" was the theme of his lecture.

• Tokachi Mainichi Newspaper

Kachimai SMU medical seminars were held in September 2023 on "Women's D iseases Beginning at Menopause" and in October on "Dementia and Hearing". In addition, the education section of the Tokachi Mainichi Newspaper regularly introduces articles highlighting our faculty members to help junior and senior high school students make career choices.

• HORI

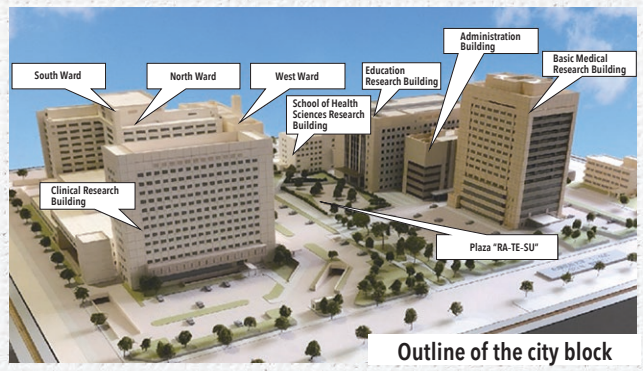
Sapporo Medical University and Hori Confectionary Co., Ltd. jointly developed "Hori Confectionary – Plus Chocolat," and the product went on sale in January 2021. This is the third product developed jointly with Hori, coming after "Hori Confectionary – Perilla & Haskap Jelly" (released in April 2015, to be discontinued in March 2022), and "Hori Confectionary – Perilla & Haskap Gummy" (released in December 2017).

Sapporo Medical University's campus is now complete

Sapporo Medical University has established new facilities to provide a quality educational environment that can keep up with changing times – a place where students can pursue their interests. We are working to improve our research and other facilities, and secure open spaces where students can come together.

University side photo

Hospital side photo



Outline of the city block

The facilities at Sapporo Medical University have been under renovation since 2013. A new gymnasium and rehabilitation training facility were completed in November 2014 and the extension of the School of Health Sciences Research Building was completed in March 2017. The first phase of construction for the Education Research Building, with new conference rooms and labs, was completed in December 2017. The renovation of the existing School of Health Sciences Research Building was completed in March 2019, improving its practice and training rooms.

The second phase of construction for the Education Research Building was completed in March 2021, along with the Administration Building, which houses the University Administration Office and Animal Research Center. In 2021, the demolition of our previous facilities was completed, and in 2022, a new campus plaza, "RA-TE-SU" was constructed to enhance the university campus as a green and relaxing space.

Completed Facilities

• Gymnasium, Rehabilitation Training Facility, Childcare Center (completed November 2014)

This complex houses a gymnasium with an athletic field, a training gym, a martial arts gym, and a Japanese archery court, as well as a rehabilitation training facility for physical therapy and occupational therapy education and research activities as well as a childcare center for the children of faculty and others.

Gymnasium

Rehabilitation training facility

• Extension of the School of Health Sciences Research Building (completed March 2017), Renovation of Existing Structure (completed March 2019)

The former School of Health Sciences Building was extended and reborn as the School of Health Sciences Research Building.
The staff rooms and research labs were relocated to the extension. The existing part of the building is also under renovation, with expansions of training and exercise rooms as well as the construction of a new nursing simulation lab.

Exterior of the building

Elevator hall

• Education Research Building Construction – First Phase (completed December 2017), Second Phase (completed March 2021), Administration Building (completed March 2021)

The Education Research Building has lecture rooms and training rooms on its lower floors, with an open atrium in the center. The upper floors have practice rooms, as well as staff rooms and labs for the Center for Medical Education and the Research Institute for Frontier Medicine. Construction was carried out in two phases: the first phase was completed in December 2017, and the second phase was completed in March 2021.
The new facilities have 12 lecture halls with capacity ranging up to 250 people, 5 training rooms including an autopsy room and 34 practice rooms.
The Administration Building is equipped to allow easier coordination in University operations by consolidating functions into the new Administration Office. The building also features experimental facilities for more effective animal research.

Exterior of the building

Atrium

Lecture room (common use)

Training room

• West Ward of the university hospital

The University Hospital's newly added West Ward houses four-bed patient rooms and private rooms with upgraded features constructed to provide a more supportive environment for patients before renovation of the existing building. An outpatient chemotherapy room, a clinical trial center and a rehabilitation facility were relocated and upgraded in the West Ward.

Exterior of the building

Neonatal Intensive Care Unit

PLAZA "RA-TE-SU"

The new campus was completed in 2022, and Sapporo Medical University decided to name the plaza "RA-TE-SU" after a public contest for the first time in which residents of Hokkaido were invited to name it "RA-TE-SU" in order to make it more familiar to local residents and to make students, faculty, staff, and alumni of the university feel affection and pride.
The plaza on the new campus, located in the area connecting the university and the hospital, will be a relaxing space with a rich sense of the seasons, from budding buds to fresh greenery and autumn leaves, planted with "Hashidoi," a white flower similar to lilac, and "Ezo Yamazakura," a representative cherry tree of Hokkaido with elegant dark pink flowers.
We will continue to work together with the local community to make wide use of the nickname "RA-TE-SU" to make the plaza a familiar place for everyone, and to "contribute to the maintenance and promotion of the health of the people of Hokkaido and continue to be a source of pride for Sapporo Medical University", which is the wish behind the nickname.

Reason for the nickname and thoughts behind it

The nickname "RA-TE-SU" was taken from the name of Hippocrates, the father of medicine. The sound of "RATESU" is similar to "terrace," which refers to a roofless platform in front of a building, and it is easy for users to become familiar with it. The nickname reflects our wish to "contribute to the maintenance and promotion of the health of the people of Hokkaido and to continue to be a university that is a source of pride for the people of Hokkaido.

Image of plaza planting (Spring)

Image of greenway planting (Autumn)

COMMUNICATIONMARK

The University reexamined the "future image of Sapporo Medical University and what it should aim for" and established the "Communication Mark" as a tool to express the brand message of Sapporo Medical University, so that faculty, staff and students can share the same goals and move forward together toward the 100th anniversary of the University, which was established in 1950. In April 2023, Sapporo Medical University established the "Communication Mark" as one of the tools to express its brand message.

In the process of creating the communication mark, with the cooperation of experts from outside the university, interviews were conducted with executives and employees, and workshops were held with the participation of the "University Public Relations Project Task Force (consisting of faculty and administrative staff)" and the "University Public Relations Student Ambassador (consisting of students from both faculties)".

The visualization was promoted through workshops attended by the University Public Relations Project Task Force and the University Public Relations Student Ambassadors.

The Communication Mark will play a public relations role to "promote communication activities on and off campus by actively wearing it by faculty, staff, and students working at the university and affiliated hospitals," and will be used on media (business cards, white coats, various goods, etc.) to be disseminated both on and off campus.

SAPPORO MEDICAL UNIVERSITY

The concept behind the communication mark

Concept: "Wings of Sapporo Medical University that fly to the world"

The initial "S" of Sapporo Medical University is used to represent the "wings" or "propeller wings" that will soar toward the world and the future.

The wings motif represents the University's mission to be at the forefront of community medical care in Hokkaido.

The design that evokes the afterimage of the wings expresses "dynamism," while the combination of two different colored wings expresses the uniqueness of the school, which has seemingly contradictory values such as "tradition and future," "local and global," and "urban and natural.

It also expresses the university's "borderless" attitude and will to create new values by connecting with alumni across generations and taking on challenges that transcend various boundaries in order to solve social issues.

Mark colors: "SMU Blue" represents "a sense of mission as a medical professional," "youthfulness and novelty," and "rich humanity and character nurtured in Hokkaido," while "SMU Red" represents "vitality," "bonds between people," and "tradition of Sapporo Medical University.

"Wings of Sapporo Medical University that fly to the world"

Idea Emergence Workshop

History

As part of Hokkaido Prefecture's comprehensive development, Hokkaido Women's Medical College was expanded in 1950 to become Sapporo Medical University. In April 1993, the School of Health Sciences was established with the reorganization of the Health Sciences Junior College (which opened in April 1983) attached to Sapporo Medical College. In April 2007, the university made the transition to become an independent corporate entity known as Hokkaido Public University Corporation Sapporo Medical University.

First president, Seishichi Ohno

First President, Seishichi Ohno

President from April 1, 1950 to March 31, 1961
Doctor of Medicine, SMU Professor Emeritus,
SMU President Emeritus

In July 1945, Dr. Ohno became the first headmaster of Hokkaido Women's Medical College. He tirelessly strove to promote the college to university status, and succeeded in founding Sapporo Medical University in April 1950.

After being appointed as the University' s first president, Dr. Ohno worked to expand and develop the university for the next 11 years, dividing the Department of Surgery into various specialized departments and establishing the Department of Anesthesiology during the two terms of his presidency.

Dr. Ohno also worked to promote skiing in Japan. As well as helping to found the Ski Association of Japan and serving as its vice president, he also served as vice-president of the Organizing Committee of the V Olympic Winter Games.

The bust pictured, which was installed on June 25, 1964, was commissioned by contributors from the faculty, alumni association, and Department of Gynecology staff, and was made by the sculptor Churyu Sato. The pedestal inscription was written by Masao Endo (father of Masayuki Endo, a graduate of the 5th class).

• Hokkaido Women's Medical College

1945	April	Hokkaido Women's Medical College founded.

• Sapporo Medical College

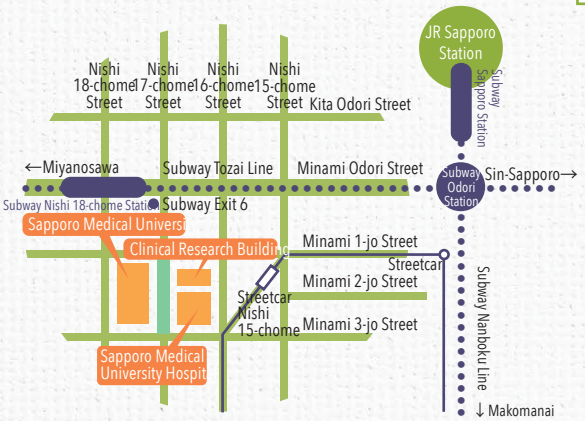
1950	April	Sapporo Medical College opened.
	June	Opening ceremony (June 25 designated as the college's foundation day).
1955	September	Cancer Research Institute established as an attached research institution.
1956	March	Establishment of the Graduate School of Medicine approved (enrollment capacity 25 students).
1958	January	Premedical course established.
1968	September	Marine Biomedical Institute established.
1979	April	Divided courses (premedical and special courses) abolished.
1983	April	Sapporo Medical College affiliated Junior College of Health Sciences opened.

• Sapporo Medical University

1993	April	School of Health Sciences (Nursing, Physical Therapy and Occupational Therapy) established (enrollment capacity 90 students).
1998	April	Graduate School of Health Sciences (Nursing, Physical Therapy and Occupational Therapy) established (enrollment capacity 24 students).
1999	April	Information Center of Computer Communication established.
2000	April	Graduate School of Health Sciences Doctoral course (Physical Therapy and Occupational Therapy) established (enrollment capacity 6 students).
2001	April	Graduate School of Medicine reorganized (Departments of Community Health & Comprehensive Medicine, Molecular & Organ Regulation and Signal Transduction Medicine).
2006	April	Collaboration Center for Community and Industry established.
2007	April	Transition to Hokkaido Public University Corporation Sapporo Medical University.
2008	April	Medical Science Course (Master's Program) opened in the Graduate School of Medicine (enrollment capacity 10 students).
	October	Center for Medical Education established.
2011	April	Cancer Research Institute and other facilities reorganized into the Research Institute for Frontier Medicine in the School of Medicine.
2012	April	Graduate Course in Midwifery established (enrollment capacity 20 students).
2014	April	Admission Center established.
	October	Health Management Center established.
2020	April	Graduate Course in Public Health Nursing established (enrollment capacity 15 students), Graduate Course in Midwifery name changed.
2023	November	Reorganize the Frontier Medical Research Institute attached to the Faculty of Medicine into the Faculty of Medicine Research Institute.

Access / Campus Map

・By Japan Railways (JR) (rapid train):
37 minutes from New Chitose Airport



Access: By subway, take the Tozai Line to Nishi Juhatchome Station; it is approximately a 5-minute walk to the university from Exit 6. By streetcar, exit at the Nishi Jugochome stop; it is approximately a 5-minute walk to the university.

Campus Map

1. Basic Medical Research Building
2. Administration Building
3. Education Research Building
4. School of Health Sciences Research Building
5. Clinical Research Building
6. Sapporo Medical University Hospital Outpatient
7. Sapporo Medical University Hospital Central Medical Care Ward
8. Sapporo Medical University Hospital North Ward
9. Sapporo Medical University Hospital South Ward
10. Sapporo Medical University Hospital West Ward
11. Gymnasium/Rehabilitation Training Facility
12. Child Care Center
13. Sapporo Medical University Memorial Hall
14. Sapporo Medical University Faculty and Student Hall
15. Cell Processing Center
16. Sapporo Medical University Hospital Family House
17. Plaza "RA-TE-SU"
18. Toll Parking Lot 1
19. Toll Parking Lot 2
20. Toll East Parking Lot

Donations to the University

Sapporo Medical University aims to further enhance education and research, improve the environment of the affiliated hospital, and support students, as well as to create an attractive university that will be supported by all of you. In order to support our many students and researchers, we ask for your broad-based donations and support.
Credit cards and other forms of payment are also accepted. For details, please visit our website from the 2D barcode.

- 難病の研究を進めて欲しい
- 市民向けの医療セミナーを開催して欲しい
- 若い研究者の育成を応援したい

→ 教育研究の更なる向上に努めます!

- 患者向けの設備を充実して欲しい
- 最新の医療機器を導入して欲しい
- 職員向けの研修を設けて、多くの知識、技術を身につけて欲しい

→ 附属病院の環境改善を図ります!

- 学生に海外派遣の機会を与えたい
- 学生向け図書の購入に使って欲しい
- クラブ活動を応援したい

→ 学生支援に役立てます!

SAPPORO
MEDICAL
UNIVERSITY

Official YouTube

Official X

Admissions X

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