SUMS Integrated Report

2024-2025

–English version–

IR

Shiga University of Medical Science

Supported by the community, contributing to the community, and playing an active part in the world

— Taking another step forward on our 50th anniversary —

The headline of the president's message was taken from the philosophy of Shiga University of Medical Science (SUMS): "The University, which is supported by its local community, contributes to the community, and plays an active part in the world" for 2024, the year of our 50th anniversary. Considering that our University was established in response to the passionate desire and tremendous support of the people of Shiga Prefecture under the concept of "One Prefecture, One Medical University*," SUMS' s most important role is to contribute to the medical care of Shiga Prefecture in accordance with this philosophy. At the same time, to attract plenty of talented people, being a "university that plays an active part in the world" is important. Therefore, we believe that contributing to the local community and actively engaging with international society are deeply connected, and we will keep a close eye on this situation as we grow.

* A concept in the "Basic Plan on Economy and Society" approved by Cabinet in 1973 to establish medical schools in 15 prefectures, including Shiga, which did not have a medical school at the time

Specialist trainees and female physicians play a key role in Shiga's medical care and development of SUMS

The School of Medicine at our University produces around 100 graduates every year. On the other hand, the specialist trainees in third-year residency, recruited from across the country, are carrying the weight of medical care in Shiga on their shoulders, and it is they who will drive SUMS's future growth. While the shortage of doctors in Japan is obvious by international standards and competition to recruit specialist trainees is intensifying, the number of them at our University is steadily increasing. Furthermore, although Japan's population is declining significantly nationwide due to the low birthrate and aging, Shiga's rate of population decline is relatively slow. Even so, the demand for medical care in the prefecture will certainly continue to increase, and we believe we must not rest on our laurels but instead keep promoting the recruitment of specialist trainees.

In addition, the ratio of female physicians in Japan has been on the rise in recent years although right now the rate is the lowest among developed countries. Moreover, promoting suitable work-styles for female doctors will become increasingly important in the future. At SUMS, we are promoting the Skills Refresher Course to support returning doctors who have left the workplace for childbirth or childcare, fostering an environment where female physicians can advance their careers at all stages of life.

Training leaders in nursing is our University's mission

Each year sees more than 55,000 new nurses trained in Japan. At our University, we see graduate school education as increasingly vital to fulfilling our mission of preparing nurses who will lead medical care in Shiga. For this reason, we have established the Nursing Science course as a doctoral program and the Maternal Certified Nurse Specialist Department for a master's program in the Graduate School of Medicine, welcoming new students for each course in April 2024. In addition, one of our strengths lies in training nurses to acquire designated advanced practices. In this way, we can help to improve the quality of medical care in diverse areas, from community medicine to advanced acute care, while supporting the career development of nurses.

UEMOTO Shinji

President
Shiga University of Medical Science

Research, clinical practice, and education are the three pillars of the University's growth

In terms of research at our University, while the Molecular Neuroscience Research Center, the Research Center for Animal Life Science, the NCD Epidemiology Research Center, and the Center for Advanced Medicine against Cancer play the leading roles, each department also actively undertakes research, broadening the foundations of research in a wide range of areas. Because in recent years industry-academia-government collaborative research and international joint research have been emphasized, we have established several joint research departments in cooperation with companies and local governments, and have also been promoting research in the Advanced Medical Research and Development Division and the International Joint Research Division.

Regarding clinical practice, as the population of the Otsu-Konan medical area where the University Hospital is located has been growing but aging, the demand for medical care is expected to keep rising, so maintaining a balance between advanced acute medical care and community medicine is crucial. For this reason, a new "Functionally Enhanced Building" called Building E is under construction at the University Hospital to provide advanced acute medical care, and we will keep contributing to community medicine as the rock underlying medical care in Shiga Prefecture.

Managing in a financially challenging environment and promoting the 50th-anniversary project

At present, the weakening yen, soaring prices, and rising labor costs amid sluggish economic growth have been serious social problems in Japan, and national university corporations, including SUMS, are struggling to cope with the inevitable rise in costs. Although we have been making the most of the limited resources available through stable and competent management and operation of the University Hospital as well as increases in external funding, which have delivered an overall positive trend, we are still keeping research support and renovation of facilities and equipment to a minimum and closely monitoring the financial situation as we look for opportunities to expand.

Meanwhile, we have received significant donations from individuals both within and outside the University to improve facilities as part of the 50th-anniversary project, and we have been able to break ground without a hitch. By offering students a pleasant and fulfilling campus life, we hope to foster a stronger sense of loyalty and belonging to the university. This in turn should lift the retention rate of graduates who choose to remain in Shiga after completing their studies.

Creating a workplace where everyone can enjoy their work

Ideally, the workplace should be an environment where all faculty and staff can enjoy their work. In the past, we aimed to create a place where people could work in a psychologically safe environment with the keywords of organizational transparency, compliance, mutual respect, and good communication. The results of the faculty and staff satisfaction survey conducted in 2023, however, revealed a gap between the ideal and the reality. So, to commemorate SUMS's 50th anniversary, we have launched the SUMS "Sampo Yoshi" Human Resource Development Project, through which we plan to hold regular training sessions and lectures to develop our people. This project will be continuously monitored through follow-up questionnaires, with the aim of creating a positive working environment where all faculty and staff can respect each other and freely exchange opinions.

50th Anniversary Projects

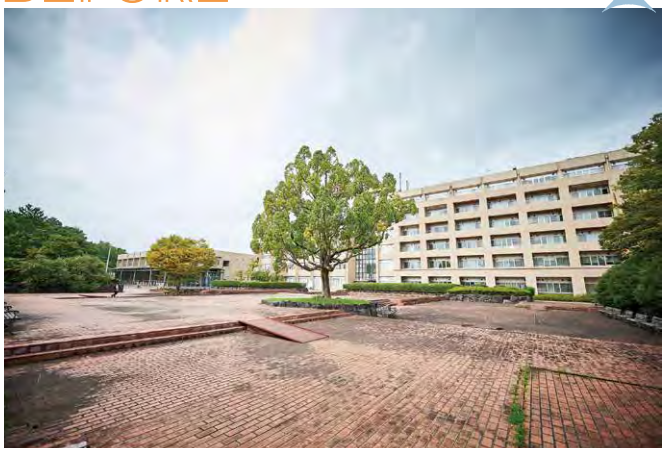
Facility Improvement Projects

On this memorable occasion, we launched several commemorative initiatives focused on three environmental improvement projects under the slogan SUMS *"Sampo Yoshi,"* aiming to enhance the university for graduates, prefectural residents, and the local community.

Courtyard Renovation

The formerly rundown courtyard was renovated and reopened as a space for students and faculty to relax, graduates to reunite, and the local community to connect at events. After the renovation, it was named *"Sazanami Garden,"* meaning "Ripple Garden," in the motif of the university emblem. The redesigned space features a lawn area and a terrace that naturally guides the flow of people, along with an arbor and benches for relaxation.
To commemorate the occasion, we invited proposals from undergraduate students to name the symbolic tree planted at the center. Through a vote among them, it was named *"Ikoi no Ki,"* meaning "Tree of Rest."

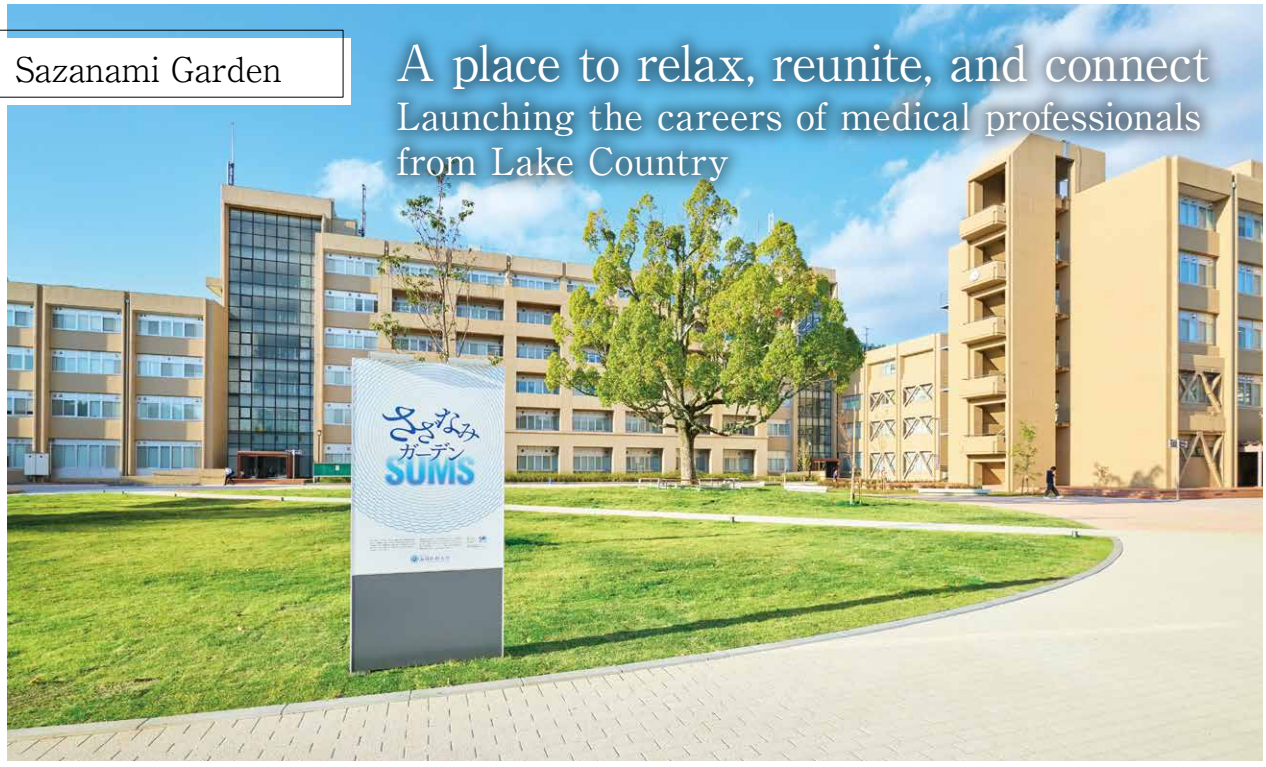
BEFORE



AFTER

Sazanami Garden

A place to relax, reunite, and connect
Launching the careers of medical professionals from Lake Country



Student's Cafeteria Renovation

The outdated student cafeteria underwent renovation to serve multiple purposes beyond dining and studying. It was redesigned as a space for relaxation, social interaction, and lasting memories for students. Renamed *"SUMS Kitchen,"* the cafeteria features wood from Shiga Prefecture, creating a warm and inviting atmosphere. Various seating options were introduced to enhance versatility, transforming the space into a vibrant hub where students and faculty can gather.

BEFORE

AFTER

SUMS Kitchen

Koikai Lounge

Newly Constructed Alumni Space

The *"Koikai Lounge,"* a dedicated space for alumni, was designed to provide a welcoming environment where graduates can reconnect and interact with current students. The lounge counter is made from the same brick tiles that once adorned the courtyard before its renovation, preserving and honoring the university's history.

What's Koikai?

Koikai was founded in March 1981, coinciding with the graduation of the first class. It was named Koikai because it was established in Shiga Prefecture, home to Lake Biwa, where its members study medicine. The alumni association aims to foster friendship among its members and contribute to the development of the University and the advancement of medicine.

The light court on the first floor of the University Hospital has been renovated by replacing the decking and installing new tables and chairs. The resulting bright and clean atmosphere has become a place for patients and their families to relax.

Light Court in the University Hospital

History & Milestones

History

1974
- 2/16 Planning Office for Establishing SUMS set up in Kyoto University
- 10/1 Shiga University of Medical Science established in Moriyama City

1975
- 4/10 First Entrance Ceremony held
- 5/2 Opening Ceremony held
- 6/23 Shakunage-kai (philanthropist organization for body donation) established

1976
- 8/16 University Campus moved to its current location in Seta, Otsu City

1977
- 9/17 Memorial Monument for Body Donors erected

1978
- 6/28 Collaborative Research Facilities established

1979
- 12/12 Anatomy Center established

1981
- 3/25 First Graduation Ceremony for the School of Medicine held
- 4/14 Graduate School established
- 5/9 First Entrance Ceremony for the Graduate School held

1985
- 3/23 First Doctorate degrees in Medical Science awarded

1989
- 6/28 Molecular Neurobiology Research Center established

1990
- 6/8 Health Administration Center established

1994
- 4/1 School of Nursing established
- 4/25 First Entrance Ceremony for the School of Nursing held

1997
- 4/1 Multimedia Center established

1998
- 3/25 First Graduation Ceremony for the School of Nursing held
- 4/1 Master's Program in Nursing established
- 4/24 Entrance Ceremony for the Nursing Course at the Graduate School of Medicine held

1999
- 4/1 Molecular Neuroscience Research Center established

2000
- 3/27 First Master's degree in Nursing awarded by the Graduate School of Medicine

2002
- 4/1 Research Center for Animal Life Science established
- 5/22 Biomedical MR Science Center, Lifestyle-Related Diseases Prevention Center established
- 11/6 Center of Educational Research on Medicine and Welfare established

2004
- 4/1 Education and Research Center for Promotion of the Medical Professions established
  With the enactment of the National University Corporation Law, national universities were incorporated, which also made SUMS a national university corporation.
- 6/3 Skills Laboratory established

2005
- 4/1 Central Research Laboratory established
  Midwifery Program established

2006
- 6/29 Biomedical Innovation Center established

2007
- 2/1 SUMS Child Care Center established

2008
- 9/25 Research Collaboration and Promotion Center established

2009
- 4/1 Research Promotion Organization for Intractable Neurological Disease established

2011
- 7/1 Office for Gender Equality established

2013
- 4/1 Center for Epidemiologic Research in Asia established

1st Medium-Term Goals and Plans 2004–2009

1990
- 6/8 Division of Emergency and Critical Care Medicine established

1993
- 4/1 Intensive Care Unit (ICU) established

1995
- 4/1 Hospital classroom (belongs to Seta Higashi Elementary School) opened

1996
- 4/1 Blood Service Center established

1997
- 4/1 Clinical Section of General Medicine established

1999
- 4/1 Clinical Trials Management Office established

1974

1978
- 4/1 University Hospital established with 15 departments
- 10/1 The University Hospital opened with 320 beds

1980
- 1/9 180 beds added, for a total of 440 beds
- 5/21 160 beds added, for a total of 600 beds

滋賀医科大学は
開学50周年

50th ANNIVERSARY

Having celebrated 50th anniversary in October 2024, SUMS has made a new start.
It is a start toward the next 50 years.

History

2nd Medium-Term Goals and Plans 2010–2015

2001
- 4/1 Section of Medical Informatics and Biomedical Engineering established

2002
- 4/1 Section of Endoscopy established
  Clinical Departments reorganized: Internal Medicine Ⅰ, Ⅱ and Ⅲ into Cardiovascular Medicine, Respiratory Medicine, Gastroenterology, Hematology, Endocrinology and Metabolism, Nephrology, and Neurology; Surgery Ⅰ and Ⅱ into Gastrointestinal Surgery, Breast/General Surgery, Cardiovascular Surgery, and Respiratory Surgery
- 4/17 Medical Safety Section, Clinical Resident Training Center, and Community Medical Collaboration Section established

2003
- 4/1 Rehabilitation Section and Section of Diagnostic Pathology established

2004
- 4/1 Central Clinical Facilities and Special Clinical Facilities reorganized into Central Clinical Sections, Medical Safety Section, Community Medical Collaboration Section, Medical Training Division, Clinical Resident Training Center, and Clinical Trials Management Office
  Section of Emergency and ICU established
- 8/1 Section of Clinical Engineering established

2005
- 4/1 Section of Medical Oncology established
- 8/1 Section of Clinical Nutrition established

2007
- 4/1 Cancer Center established
- 8/31 Ward D completed

2008
- 6/1 Division of Infection Control and Prevention established
- 7/1 Patient Support Center established

2009
- 4/1 Clinical Education Center for Physicians established
- 10/20 Medical Oncology Department established
- 12/1 Clinical Education Center for Nurses established

2010
- 3/1 Midwifery Clinic established
- 7/1 Six beds added, for a total of 614 beds

2011
- 3/12 Disaster Medical Assistance Team (DMAT) dispatched for the Great East Japan Earthquake disaster assistance
- 10/1 Center for Clinical Research and Advanced Medicine established

2013
- 3/25 Surgical Robot "Da Vinci Si" introduced

2014
- 3/31 Heliport completed
- 4/1 Hospital classroom (belongs to Seta Junior High School) established

2016
- 2/1 Advanced Nurse Training Promotion Office established
- 4/1 Perinatal Center established
- 10/1 Plastic and Reconstructive Surgery Department established

2017
- 4/1 Advanced Nurse Training Center established

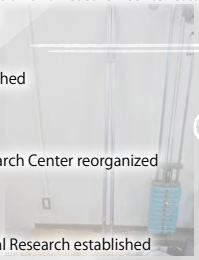
2021
- 9/1 Stroke Care Unit (SCU) established
- 10/29 Triage Center established

3rd Medium-Term Goals and Plans 2016–2021

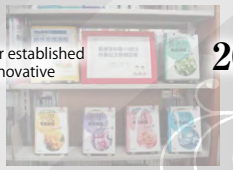
2014
- 4/1 Community Healthcare Education and Research Center established
- 9/4 Skills Lab Building completed

2015
- 11/26 Research Ethics Office established

2016
- 4/1 Molecular Neuroscience Research Center reorganized



2017
- 4/1 Management Office of Medical Research established
- 5/1 Research Administration Office reorganized



2018
- 4/1 Information Technology and Management Center established
  Department of Research and Development for Innovative Medical Devices and Systems established
- 6/14 Education Promotion Office established

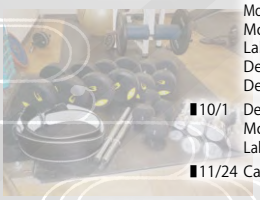
2019
- 4/1 IR Office established
  Admissions Center established
  Center for Advanced Medicine against Cancer established
  Comprehensive Strategy Council established
- 7/1 Education Center for Medicine and Nursing established

2020
- 4/1 International Center established

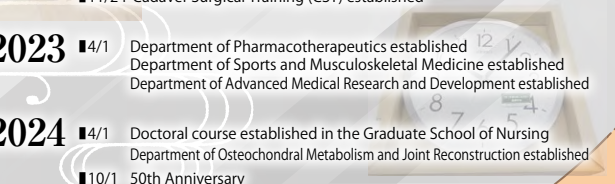
2021
- 4/1 NCD Epidemiology Research Center established

4th Medium-Term Goals and Plans 2022–2027

2022
- 4/1 Advanced Medical Research Organization established
  Medical Innovation Research Center established
  Molecular Engineering Institute, Functional Materials Laboratory established
  Molecular Engineering Institute, Molecular Design of New Materials Laboratory established
  Department of Regenerative Medicine Development established
  Department of Biocommunication Development established
- 10/1 Department of Therapeutics for Protein Misfolding Diseases established
  Molecular Engineering Institute, Sustainable Materials Development Laboratory established
- 11/24 Cadaver Surgical Training (CST) established



2023
- 4/1 Department of Pharmacotherapeutics established
  Department of Sports and Musculoskeletal Medicine established
  Department of Advanced Medical Research and Development established



2024
- 4/1 Doctoral course established in the Graduate School of Nursing
  Department of Osteochondral Metabolism and Joint Reconstruction established
- 10/1 50th Anniversary

2024

The Fourth Medium-Term Goals and Plans -with Key Performance Indicators(KPI)-

To Be a Sustainable and Attractive University

With the start of the Fourth Medium-Term (AY2022-AY2027) Goals and Plans, it has become mandatory to set performance indicators to show the level of Achievement for each medium-term plan. SUMS has set 57 performance indicators for outputs and outcomes. These indicators will be shown alongside the FY2023 results.

Sustainability in Education

- Cultivating human resources capable of AI development and ICT utilization
- Establishing an education system for the future (STEAM education, online education, simulation education, etc.)

KPI — Steady Progress

Number of lectures on themes involving integration of medicine and other fields including AI

Increase by at least 25% over 6 years
(Target number: 60)

Achievement FY2023: 18 lectures
The Fourth Medium-Term Cumulative Total: 28 lectures

See also page14!

KPI — Steady Progress

Pass rate of the National Exam for Medical Practitioners for new graduates

At least 95% on average over 6 years

Achievement FY2023: 95.8%
The Fourth Medium-Term Average: 97.4%

Sustainability in Research

- Deepening distinctive research
- Developing young human resources who will become future leaders
- Increasing external funds through promotion of industry-academia collaborative research

KPI — Achieved

Number of products and services to which SUMS contributes in development

More than double in 6 years
(Target number: 6)

Achievement FY2023: 4 cases
The Fourth Medium-Term Cumulative Total: 10 cases

See also page 21!

KPI — Steady Progress

Number of papers published in English per young researcher

Increase by at least 10% over 6 years
(Target number: 0.35)

Achievement FY2023: 0.58 papers
The Fourth Medium-Term Average: 0.52 papers

Sustainability in Community Healthcare

- Fostering outstanding physicians who will settle in Shiga Prefecture
- Training nurses who will become future leaders
  (Home-visit nurses, Graduates of Advanced Nurse Training, Nurses specializing in infectious diseases, etc.)

KPI — Steady Progress

Percentage of medical school graduates enrolled in the quota for regional service employed in Shiga immediately after graduation

At least 90% on average over 6 years

Achievement FY2023: 100%
The Fourth Medium-Term Average: 100%

KPI

Number of medical school graduates employed in Shiga immediately after graduation

Increase by at least 5% over 6 years
(Target number: 325)

Achievement FY2023: 50 graduates
The Fourth Medium-Term Cumulative Total: 88 graduates

Sustainability in Running the Operation

- Improving work efficiency, including the use of digital technologies
- Expanding Gender Equality Promotion Plan to the local community
- Constructing a functionally enhanced building of the University Hospital

KPI — Steady Progress

Reduced work hours through the introduction of digital technologies such as AI and RPA

At least 1,000 cumulative hours over 6 years

Achievement FY2023 about: 130 hours
The Fourth Medium-Term Cumulative Total: about 878 hours

KPI — Steady Progress

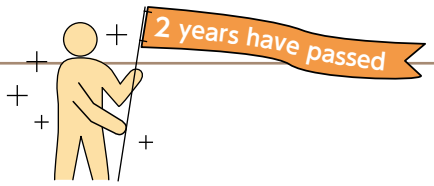
Number of participants in Skills Refresher Course
(Career continuity support for female physicians)

At least 6 participants over 6 years

Achievement FY2023: 3 participants
The Fourth Medium-Term Cumulative Total: 5 participants

2022▶2027

Sustainable & Attractive



2022 ▸ 2023 ▸ 2024 ▸ 2025 ▸ 2026 ▸ 2027

Steady Progress Expected to be achieved by FY2023

Achieved Achieved by FY2023

KPI

Steady Progress

PASS Pass rate of the National Nursing Exam for new graduates

At least 98% on average over 6 years

Achievement FY2023 100%

The Fourth Medium-Term Average 99.1%

KPI

Steady Progress

PASS Pass rate of the National Public Health Nursing Exam for new graduates

At least 98% on average over 6 years

Achievement FY2023 100%

The Fourth Medium-Term Average 100%

KPI

Steady Progress

PASS Pass rate of the National Midwifery Exam for new graduates

At least 98% on average over 6 years

Achievement FY2023 100%

The Fourth Medium-Term Average 100%

KPI

Achieved

Intellectual property-related income

More than double in 6 years
(Target: ¥15 million)

Achievement FY2023 about ¥13.00 million

The Fourth Medium-Term Cumulative Total about ¥20.75 million

KPI

Achieved

Income from external funds through collaborative research and open laboratories

Increase by at least 5% over 6 years
(Target: ¥600 million)

Achievement FY2023 about ¥400 million

The Fourth Medium-Term Cumulative Total about ¥700 million

KPI

Steady Progress

Number of joint degree program or equivalent programs

At least 1 in 6 years

We plan to establish an international joint doctoral program.

See also page29-30!

KPI

Steady Progress

Number of medical specialist trainees at the University Hospital (SUMS alumni)

IAt least 35 trainees on average over 6 years

Achievement FY2023 35 trainees

The Fourth Medium-Term Average 39 trainees

KPI

Steady Progress

Number of home-visit nurses in Shiga

At least 2.8 nurses on average over 6 years

Achievement FY2023 2 nurses

The Fourth Medium-Term Average 4 nurses

KPI

Steady Progress

Number of advanced-practice nurses assigned to the University Hospital

At least 50 nurses by FY2027

Achievement FY2022 34 nurses

Achievement FY2023 45 nurses

See also page25!

KPI

Steady Progress

Number of patients transported by ambulance and helicopter

Increase by at least 25% by FY2027
(Target: 3,750)

Achievement FY2022 3,535 patients

Achievement FY2023 4,154 patients

KPI

Steady Progress

Number of gastrointestinal endoscopic examinations and treatments

Increase by at least 25% by FY2027
(Target: 9,000)

Achievement FY2022 6,823 tests/treatments

Achievement FY2023 7,255 tests/treatments

The Functionally Enhanced Building of the University Hospital will be completed around February 2026.

Quick Facts of SUMS

Founded in

1974

The 50th anniversary was celebrated in 2024

From the Lake Country to the World

Half a century with local medicine and beyond

50th 滋賀医科大学

50th Anniversary Website

The 50th anniversary has renewed our sense of gratitude to all the stakeholders who have continued your involvement in SUMS. With this in mind, we intend to move forward into the next 50 years. Thank you for your continued support of SUMS.

Faculty and Staff

(May 2024)

1,464

(Percentage of females)

All Faculty and Staff members 63.2%

Faculty members 26.7%

The ratio of female faculty members at national universities has been increasing slightly each year. The ratio at SUMS is slightly higher than that of national medical universities as a whole (26.4%, The MEXT School Basic Survey 2024). SUMS is promoting the creation of an environment in which both genders can play an active role.

Number of Students Male Female

(May 2024)

Male

Female

Undergraduate 914

School of Medicine 674

385 | 289

School of Nursing 240

10 | 230

Regional quota for 1-year students

School of Medicine 16.8%

School of Nursing 16.7%

Graduate 208

Graduate School of Medicine, Doctoral Program (Medical Science) 166

109 | 57

Graduate School of Medicine, Doctoral Program (Medical Science) 42

9 | 33

International Students 16.0%

Adult Graduate Students 68.9%

Total 1,122

513

Male-to-Female Ratio

45.7% | 54.3%

609

Student-to-Faculty Ratio

Faculty : Undergraduate students

1 : 2.7

National University Average ST Ratio 1:9.2

SUMS has more faculty members than the national average for the number of students (9.2), which enables us to provide generous support in regard to teaching and research (General Survey of Schools by MEXT, 2024). At SUMS, we strive to provide each and every student with careful and warm guidance.

AY2023 Career Paths of Alumni in Shiga

School of Medicine

43.9%

Percentage of enrolled students from Shiga

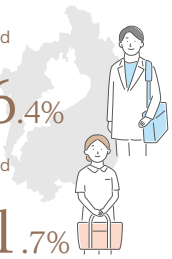
AY2018 16.4%

School of Nursing

61.4%

Percentage of enrolled students from Shiga

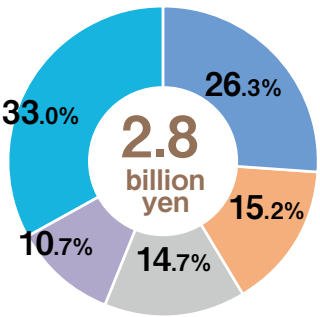
AY2020 51.7%



The percentage of graduates from the School of Nursing in AY 2023 who found employment in Shiga Prefecture was higher than usual. This may be because the percentage of students from Shiga Prefecture at the time of enrollment was slightly higher than usual. As for the School of Medicine, compared to the percentage of students who were from Shiga Prefecture at the time of admission, the percentage of students employed, etc. in Shiga Prefecture has increased significantly. Regardless of whether they are from Shiga Prefecture or not, the fact that many graduates are working in Shiga Prefecture is boosting our "contribution to the local community."

External Funds Received

FY2023



- Commissioned research
- Joint research with private companies
- Grants-in-Aid for Scientific Research
- Donations
- Other competitive external funds

Obtaining external funds is important for the development of research. SUMS is not only promoting research, but also conducting research activities and providing research support on a daily basis to link our research to social implementation.

Ranked 20th in Research Funds Received per joint research with private companies (University Fact Book 2024, Japan Business Federation) (See also page 35)

See website of IR office.

Adoption Rate of Grants-in-Aid for Scientific Research (KAKENHI) FY2023

31.3%

National Average

27.5%

We support young researchers

SUMS has a high adoption rate for "Grant-in-Aid for Early-Career Scientists (39.2%)" and "Grant-in-Aid for Research Activity Start-ups (80.0%)". We encourage young researchers to apply for the grants in the spirit of "No Application, No Adoption".

Patent Licensing Rate

University Fact Book 2024
(Japan Business Federation)

Ranked

2nd

49.6%

Although the number of patents held by SUMS is small compared to that of comprehensive universities, the licensing rate is high, and we are returning the results of our research to society.

University Rankings

THE JAPAN UNIVERSITY RANKINGS

Times Higher Education
THE World University Rankings: Japan 2023
In the field of “Educational Resources”

Ranked

8th/271universities

In our educational and research environment, each student can receive warm and substantial support

Educational Resources represents how well-rounded education is, based on data such as funds per student and faculty ratios.

Our overall ranking has also improved from the previous year.

SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING

THE Impact Ranking 2024
SDG3 "Good Health and Well-being"

THE Impact Ranking 2024
SDG3 "Good Health and Well-being"

Domestic ranking

6th/72 universities

Global ranking

71st/1,498 institutions

Recognized for its remarkable efforts to promote health and well-being in local communities to achieve the SDGs

This ranking evaluates university social contributions and research activities using the SDG framework.

Education

Shouldering the burden of future medical care

Striving to contribute to the community and advance medical and nursing sciences

As a university supported by and contributing to its local community while playing an active part in the world, SUMS is committed to training trustworthy medical professionals and researchers who can disseminate the university's distinctive research to the rest of Japan and beyond. We are collaborating with Shiga Prefecture to develop people who will shape the future of Shiga, a region renowned for its rich history, culture, and nature, through initiatives in health, medical care, and welfare. Furthermore, by establishing the Community Medical Care Course and the Community Foster Parent Student Support Project, we are offering students opportunities to directly experience Shiga's medical care and the prefecture's charms early on in their careers, paving the way for pre-graduation career development.

Our University celebrated its 50th anniversary in 2024, and as of March 2024, it has produced 4,444 graduates from the School of Medicine and 1,798 graduates from the School of Nursing. Around 40% of all physicians in Shiga are alumni of SUMS, confirming our significant contribution to enhancing and developing medical care in the prefecture. Regarding the advancement of nursing education, we established a doctoral program in nursing science at the Graduate School of Medicine in 2024 to produce highly skilled professionals capable of addressing health issues across the human lifespan and creating a nursing care system that operates seamlessly from hospitals to the community. In addition, for the master's program, we launched the Maternal Certified Nurse Specialist Department, marking the first initiative in Shiga to nurture certified nurse specialists. Through these efforts, we aim to help improve nursing care in the

MATSUURA Hiroshi
Director of Academic Affairs,
Student Support and Compliance
Vice President

prefecture.

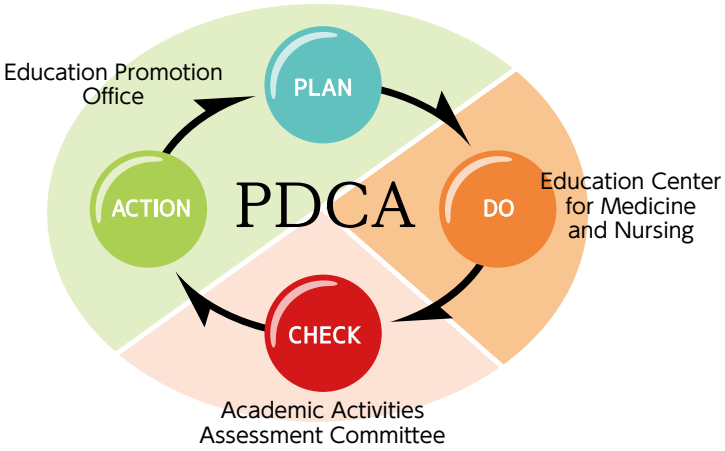
In 2024, our University underwent the second evaluation of its medical education programs by the Japan Accreditation Council for Medical Education (JACME), and received accreditation. The first evaluation took place in 2017, and we were fortunate to receive initial accreditation, certifying our compliance with the global standards for quality improvement set by the World Federation of Medical Education (WFME). However, the evaluation also identified areas for improvement, such as the introduction of Outcomes-Based Education and the expansion of Clinical Clerkships. Over the past seven years, we have worked hard to improve all aspects of our educational activities, including the areas highlighted in the initial evaluation.

Continuous effort for educational improvement

In medical and nursing education, continuous improvement by following the PDCA cycle is important.

SUMS has established three independent sections: the Education Promotion Office for "Plan" and "Act"; the Education Center for Medicine and Nursing for "Do"; and the Academic Activities Assessment Committee for "Check" to keep our sound PDCA cycle operating continuously.

In addition, we undergo a third-party assessment to maintain and improve our internal quality assurance system for our implementation.



Undergraduate

School of Medicine

SUMS educates students in accordance with the Outcome-Based Education curriculum to achieve the outcomes set to be acquired by graduation time based on the degree policies.

In addition, our curriculum has been designed to align with the "Model Core Curriculum for Medical Education" set by MEXT, to form the professionalism, to cultivate attitude of holistic approaches, and to acquire medical research methods, that enables students to systematically acquire the knowledge, skills, and attitudes required in modern medicine.

Competence and the Ideal as a Medical Professional

To strengthen education in professionalism to create the ideal medical professional, we have introduced a new course called "Fundamentals of Professionalism" from AY2024. In addition to education on "Fitness to Practice," this course includes sufficient time for coaching exercises that emphasize active listening, questioning, and acknowledgment, with students learning communication skills that promote the respect of others. In addition, by acquiring metacognitive skills and self-talk skills that enable students to view themselves objectively, they cultivate a lifelong attitude of autonomous learning.

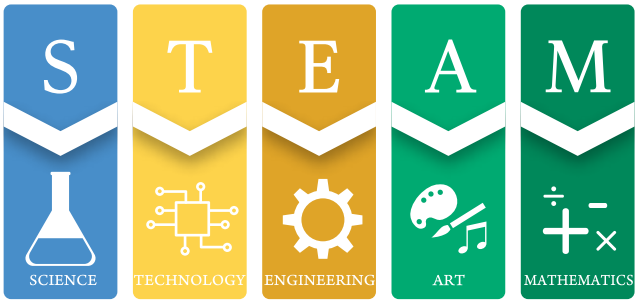
From left: Prof. Mukaisho, Assis. Prof. Inoue
Education Center for Medicine and Nursing

STEAM education to foster the abilities to survive the coming era

In today's world, which is changing rapidly due to recent technological advances, we need to be able to think from an interdisciplinary perspective without being constrained to a single academic discipline, to integrate and utilize a variety of information, to discover and solve problems, and connect all these to the creation of social values.

To do so, we designed a curriculum that includes a wide range of liberal arts subjects.

In addition, we established the **"Mathematics, Data Science, and AI Education Program for the Development of Medical Professionals"** to train medical professionals who can understand and utilize the theoretical background of new technologies.



Fourth Medium-Term Plans and KPI

Number of lectures on themes involving integration of medicine and other fields including AI

Goal: Increase by at least 25% over 6 years (Target: 60 lectures)

2nd Year: Steady increase

Achievement FY2023: 18 lectures

This program is the Approved Program for Mathematics, Data Science, and AI Smart Higher Education (MDASH) at the literacy level by MEXT, valid until March 31, 2026.

School of Nursing

SUMS considers nursing as a discipline organically integrated and coordinated with health, medical care, and welfare. It provides students with expertise founded on a rich base of humanity and ethics to cultivate abilities to practice nursing that supports the healthy lives of a wide range of people.

Our curriculum features four characteristic points: teaches to a bachelor's level of ability that includes a broad general education, information literacy, and nursing research skills; is part of an environment that also contains the School of Medicine and the University Hospital; is accredited for holding the national exams for nursing, public health nursing and midwifery; has a "home-visit nursing course" that cultivates practitioners of community healthcare and comprehensive community care.

A Joint Effort between the School of Nursing and the Nursing Division of the University Hospital — Unification Initiatives —

It has been some 15 years since the School of Nursing began its unification initiatives with the clinical side, specifically the Nursing Division of the University Hospital. Current nurses in charge of clinical education (clinical nurse educators) and the nursing faculty members alternate between teaching and working in the clinical setting, leveraging their expertise to enhance both practical education and hands-on training in lectures.

In addition to their clinical duties, clinical nurse educators also give lectures and practical training sessions on campus, while nursing faculty members also work together on clinical duties in hospitals and research activities in addition to their educational duties at the University. We are putting into practice a tri-lateral win-win-win approach that is good for students, clinical nurse educators, and nursing faculty members.

Initiative of *Sampo-yoshi*

(good in three directions: Students, Clinical Nurse Educators, and Nursing Faculty)

Good for Students

- Helping to bridge the gap between classroom learning and practical settings through exposure to the latest medical equipment and technology during lectures and practical sessions, ensuring a smoother transition to practical training
- Alleviating students' anxiety, making the experience less stressful through interaction with Clinical Nurse Educators prior to practical training

Good for Nursing Faculty

- Providing opportunities for educators to update their knowledge and skills, which contributes to a better classroom experience
- Leveraging clinical questions from clinical practice into their research activities

Good for Clinical Nurse Educators

- Participating in lectures and practical training as instructors provides an opportunity to share the learning progress of students, leading to seamless guidance from classroom to clinical training

Nursing Faculty — School — Hospital — Clinical Nurse Educators

Graduate School of Medicine

Doctoral Program (Medical Science)

Curriculum

We offer four major courses, and one of them, the Advanced Medicine for Clinicians Course, includes the Cancer Specialist Training Course and the Forensic Generalist and Forensic Specialist Training Courses that have been approved by MEXT as programs to train physician-scientists who conduct basic research and are active in the community.

Advanced Medical Science Course

Learn from leading researchers who are conducting medical research from basic to clinical levels, promoting cutting-edge and distinctive research, and creating new research fields.

Advanced Medicine for Clinicians Course

While aiming to become a specialist, conduct clinical research, and study medical ethics and legal studies.

Interdisciplinary Medical Science and Innovation Course

Conduct research on new academic fields through the fusion of medicine and other fields, and on medical innovation, to play an active part in industry-academia collaboration by combining interdisciplinary knowledge and research skills.

NCD Epidemiology Leader's Course

Conduct research on non-communicable diseases (NCDs) to play a leading role in solving NCD problems, contributing to healthy life expectancy.

Master's Program (Nursing Science)

Curriculum

We have three major courses, providing students with a broad perspective and in-depth knowledge, and nurture outstanding researchers with research skills and a strong sense of humanity including solid specialist knowledge and advanced nursing practice. The courses develop professionals who will be able to contribute to the advancement of nursing and the improvement of social welfare.

Nursing Research Course

- **Lifespan Developmental Nursing Practice Science Course**

Division of Women's Health Nursing
Division of Child Health Nursing
Division of NCD Nursing and Epidemiology
Division of Frailty Nursing
Division of Nursing Management for Pathological Condition 1
Division of Nursing Management for Pathological Condition 2

- **Care Systems Nursing Science Course**

Division of Basic Medical Sciences
Division of Fundamental Nursing
Division of Health Promotion Nursing
Division of Visiting Nursing
Division of Psychiatric and Mental Health Nursing

Advanced Nursing Practice Course

- **Certified Nurse Specialist (CNS) Course**

Prepare CNSs, which are nurses with at least five years of practical experience who have completed a master's course in nursing, obtaining necessary credits from graduate schools, and passing the designated certification exams. One of the departments, the Maternal Certified Nurse Specialist Department, provides education that realizes the philosophy of maternal nursing, which aims to provide high-quality nursing care for mothers and their families, supporting women's unique life cycles and health.

- **Specified Medical Procedures in Advanced Nursing Course**

Improve nursing expertise in various areas of practice and develop clinical nursing by training advanced-practice nurses who have outstanding knowledge and skills that enable students to perform tasks in specified practice areas of nursing as role models.

Nursing Administration Course

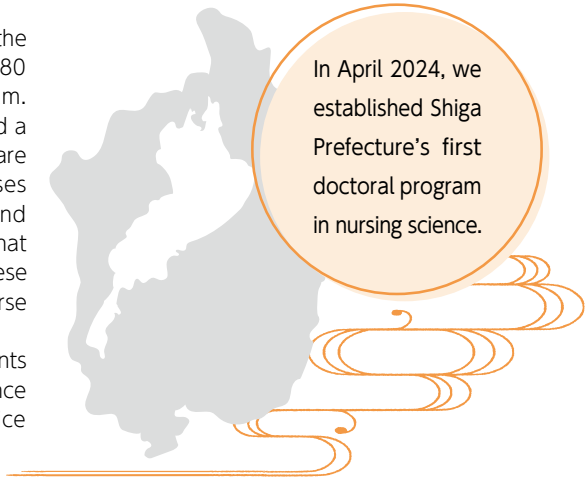
- **Nursing Administration Course**

To practice nursing management, acquire the ability to provide leadership and guidance to nursing staff, as well as a strong sense of ethics, and to contribute to the development of high-quality, systematic nursing services, students are required to gain a broad range of knowledge to respond to changes in the environment surrounding healthcare and welfare.

New Doctoral Program in Nursing Science Established

SUMS established the School of Nursing in 1994 and the Master's Program in the Graduate School of Nursing in 1998, and has since produced 1,582 nurses, 1,480 public health nurses, 159 midwives, and 295 graduates of the Master's Program. Twenty-six years after setting up the master's course, in April 2024 we established a doctoral course to train people who can respond to five issues in health, medical care and welfare in Shiga Prefecture. The five issues are: (1) non-communicable diseases (NCDs); (2) declining birthrates and women's health; (3) aging; (4) shortages and uneven distribution of medical resources; and (5) nursing management systems that connect hospitals and communities. In order to train people who can respond to these issues, we have founded the Lifespan Developmental Nursing Practice Science Course and Care Systems Innovation Nursing Science Course.

This year, the first year of the program, we had many applicants, and two students were accepted into each course, for a total of four students. We will provide guidance so that they can contribute to society through the development of nursing practice science and improvement in the quality of community healthcare.



Aiming to improve nursing care in Shiga Prefecture

Following the University's philosophy and mission, the School of Nursing and the Graduate School of Nursing have trained nursing professionals and researchers with a strong sense of ethics and a scientific spirit. As a result, they have produced many outstanding graduates since our establishment. In 2024, we set up a doctoral program with the aim of training the next generation of educators and researchers who can take on the task of developing such human resources.

The number of four-year nursing schools has increased dramatically over the past quarter century, from 63 in 1998, when the master's program (now doctoral course, first phase) was established, to 304 (including 42 national universities) in 2024. Along with this increase, in 2022, four-year universities became the most common type of school for enrolling in nurse training courses. On the other hand, there are only around 100 doctoral programs in nursing, which are necessary for training personnel involved in university education due to the shortage of outstanding nursing education researchers.

We hope that graduates of our program will respond to this need and become a driving force for promoting scientific, international, and interdisciplinary nursing research and nursing education for the development of the next generation.

Prof. Miyamatsu Naomi
Chief of Faculty of Nursing
Division of Adult Health Nursing,
Department of Clinical Nursing

Doctoral Program (Nursing Science)

Curriculum

Lifespan Developmental Nursing Practice Science Course

Establishing seamless nursing practice through recommendations based on scientific research methods, by viewing people with diverse health problems as people who change over the course of their lives, and by seeking the best way to support the health and treatment of each individual life.
The Lifespan Developmental Nursing Practice Science Course understands the meaning of viewing people as humans that change over the course of their lives. And in continuous nursing, the Lifespan Developmental Nursing Practice Science Course aims to develop human resources who can demonstrate the ideal form of nursing to achieve the best possible health for people. We aim to contribute widely to society through grasping the health problems of target patients and accumulating knowledge about the nursing care needed. In other words, we aim to develop researchers who can respond to the process of "from researcher to clinician" and "from clinician to target," which can be positioned as the practical application of evidence.

Care Systems Innovation Nursing Science Course

Nursing that aims to create sustainable care systems from the perspectives of community care and nursing management by understanding the health of individuals, including their interaction with their environment, and using scientific methods to solve health problems.
By bridging the boundaries between hospitals, facilities, and communities, we aim to show how care systems should be designed to suit the characteristics of the places where people live and to disseminate this information widely throughout society. By working with a diverse range of people who make up local communities, including residents, health, medical and welfare professionals, and government officials to explore the creation of care systems that will help to solve health problems, we will train researchers who can put the results of their research into action the community.

Research

Contributing to the health for all

Nurturing young researchers who tackle contemporary issues through distinctive research and play an active part in the world

The philosophy of SUMS is "Supported by its local community, contributes to the community, and plays an active part in the world." To realize it, we are promoting the three C's: Creation, Challenge, and Contribution. In research, we emphasize Challenge, focusing on addressing the issues of human and modern society through outstanding research.

To achieve our philosophy, we are promoting three major initiatives. First, we foster distinctive research and disseminate our outstanding research findings to the world. Specifically, we have designated research on intractable neurological diseases, medical research using cynomolgus monkeys, lifestyle-related diseases and epidemiological studies, and advanced cancer research as priority research areas, allocating university resources to support them. As part of the Program for Forming Japan's Peak Research Universities, currently promoted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), our University has applied to be a partner institution for Shiga University and Ritsumeikan University, leveraging our achievements in lifestyle-related diseases and epidemiological studies. Additionally, we have applied to be a partner university for Jichi Medical University, utilizing our accomplishments in medical research using cynomolgus monkeys.

Second, as part of our commitment to the local community, we aim to drive medical innovation from our research findings by spurring collaboration between industry, academia and government, and linking research findings to practical use. To date, we have established nine joint research departments in collaboration with companies and local governments with the aim of helping to advance and enrich education and research. This has also resulted in the amount of external funding acquired reaching a record high for two consecutive years. In addition, we have commercialized a state-of-the-art steerable catheter with greatly improved

TOOYAMA Ikuo
Director of Research, Planning and International Affairs
Vice President

bending performance that was developed through joint research with a company.

Third, to foster young researchers who will play an active part in the world, we provide research support for young researchers from the president's discretionary funds. In the School of Medicine and the School of Nursing, we are promoting research that utilizes AI and VR, and encouraging students to participate and work with faculty members. In addition, we established the Medical Innovation Research Center in 2022 to bring together a diverse range of researchers regardless of nationality, gender or age, creating an environment where young researchers can conduct research freely based on their own ideas. The Center's International Joint Research Division invites foreign researchers from the National University of Malaysia, one of our partner institutions, to carry out international joint research. This initiative has been developed for an international joint degree program—the PhD program on aging science—between the two universities, and it is scheduled to start next year.

By committing to advance these three initiatives, we lay the foundation for further growth of our University over the next 50 years.

Research Organization that Crosses Disciplinary Boundaries

Deepening distinctive research that has power through international dissemination

Research Center for Animal Life Science

As a support organization for the national initiative to establish a world-leading R&D base for vaccine development, we are responsible for breeding and supplying cynomolgus macaques. We are also responsible for producing disease model monkeys using advanced genetic modification technology as a satellite institute for the World Premier International Research Center Initiative (WPI).

From left: Assoc. Prof Morimura, Prof. Ema, Asst. Prof. Okamura

Medical studies using monkeys

Recent Topics

In collaboration with the Division of Molecular Medical Biochemistry in the Department of Biochemistry and Molecular Biology, we have succeeded in creating the world's first monkey model of familial hypercholesterolemia (FH). This is expected to be applied not only to the development of treatments for FH, but also to the treatment of dyslipidemia as a lifestyle-related disease that could affect up to 15 million patients in Japan alone.

Molecular Neuroscience Research Center

We are aiming to become pioneers who open up new paths based on our own ideas, by advancing molecular pathological analysis of intractable neurological diseases such as Alzheimer's disease, amyotrophic lateral sclerosis (ALS), and frontotemporal lobar degeneration. We are building a research system that integrates basic and clinical research by introducing state-of-the-art methodologies in genetic engineering, molecular biology, cell biology, and morphology.

From left: Prof. Ishigaki (Head), Prof. Urushitani

Dementia and neurodegenerative diseases

Recent Topics

Through joint research with other universities, we have developed a method of using VR goggles to measure path integration, the brain's spatial cognitive function. This method enables an easy and inexpensive, non-invasive assessment of the brain's state, and we hope it will be useful in preventing and treating Alzheimer's disease in humans.

CHECK ! see p.21.

NCD Epidemiology Research Center

As one of Japan's leading centers for epidemiological research, we are conducting research to investigate the causes of lifestyle-related diseases and dementia, and establish prevention methods through a variety of epidemiological studies on non-communicable diseases (NCDs). We are advancing research on projects designated by the MEXT, Shiga Epidemiological Study of Subclinical Arteriosclerosis (SESSA), and international joint research, and are making a significant contribution to national policy planning and the advancement of global medicine.

From left: Assoc. Prof. Harada, Prof. Miura (Head), Assoc. Prof. Kadota

Epidemiologic research on non-communicable diseases

Recent Topics

In SESSA, in which we are playing a leading role, research has revealed a correlation between intestinal flora and the degree of progression of atherosclerosis in the coronary arteries. In the future, further studies are expected to clarify preventive methods through longitudinal verification of the relationship between these intestinal bacteria and disease onset, as well as detailed identification of bacterial strains.

Center for Advanced Medicine against Cancer

We are working on research to elucidate the mechanisms of cancer development and progression using cutting-edge molecular analysis of various model animals and human biological samples, as well as on the development of innovative cancer diagnosis and treatment methods. We are also training medical professionals to lead the practice of advanced cancer treatment and advanced cancer research at the University Hospital.

From left: Prof. Daigo (Head), Assoc. Prof. Takano

Advanced cancer research

Recent Topics

In collaboration with research teams from other universities, we compared the genetic differences between approximately 17,000 Japanese patients with lung adenocarcinoma and approximately 150,000 people who did not have lung cancer, and identified the genetic differences that determine susceptibility to lung adenocarcinoma. These findings are expected to be useful for the prevention and early detection of lung adenocarcinoma in non-smokers.

Accelerating priority research

In 2022, the Advanced Medical Research Organization was established to integrate our research centers so that they cross the boundaries of each center, expecting that by applying the cynomolgus monkey disease model, the distinctive fruit of our University's research, to all research projects. We will promote unprecedented leading academic research in this field.

*Our animal experiments are conducted under careful consideration for animal bioethics with an animal experiment accreditation system.

Advanced Medical Research Organization

Fourth Medium-Term Plan

Contribute to promoting local industries and solving of health and medical problems

Central Research Laboratory

Under the direction of Prof. Itoh Yasushi with eight staff members, the Central Research Laboratory provides a wide range of research equipment to support and facilitate cutting-edge science in SUMS. To enhance the knowledge and skills of researchers, we offer intensive lectures, on-campus seminars, user workshops, and hands-on training.

From left: Senior Assis. Prof. Toyoda, Prof. Itoh (Head), Assoc. Prof. Asahina

Management, maintenance, and operation of research equipment to support researchers

Promoting the development of young professionals who will become future leaders

Medical Innovation Research Center

【Advanced Medical Research and Development Division】

We develop innovative medical devices through industry-academia collaboration using core technologies developed from medical-engineering collaboration research, unerringly identifying clinical unmet needs.

Assoc. Prof. Yamada

CHECK !

See p.21 for an introduction to the medical devices we have developed.

【International Joint Research Division】

We promote international collaborative research on dementia and lifestyle-related diseases. To accelerate such research, we have established a joint degree program with our partner university, the National University of Malaysia (UKM).

Prof. Wan Zurinah Wan Ngah

CHECK !

For details, see p.29-30.

【Pioneering Research Division】

To advance priority research and develop young researchers, we provide young researchers with an independent research environment to conduct emergent research based on free ideas using next-generation research methods such as data science and AI technology.

Assoc. Prof. Hashimoto (Tenure-track faculty member)

A tenure-track faculty member has been provided a career path after working on a fixed-term special contract. This system enables her to carry out research and educational activities in an independent environment and, after a review, to obtain a tenured position.

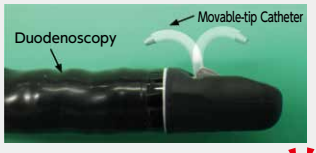
Creating the future from unique perspectives

01 Steerable catheter developed through medical-engineering and industry-academia collaborations

Assoc. Prof. Yamada Atsushi
Advanced Medical Research and Development Division
Medical Innovation Research Center

Background and Methods

In gastroenterology examinations, catheter insertion into the bile duct can be challenging due to the complex branching structure of the bile duct and significant individual variations. To address this issue, we collaborated with a company to research and develop an ERCP steerable catheter inspired by the ideas of Dr. Inatomi Osamu, an Associate Professor in the Department of Gastroenterology, who has extensive experience in endoscopy. We utilized an artificial blood vessel material at the tip of the catheter, ultimately commercializing a steerable catheter that enables bidirectional active bending, offering excellent flexibility and durability.



Results and Future Prospects

The developed steerable catheter is currently in use at many hospitals in Japan. Many clinical reports highlight its success in challenging cases that conventional steerable catheters could not address. With Dr. Inatomi, we continue to research and develop additional medical devices that are even easier to operate.

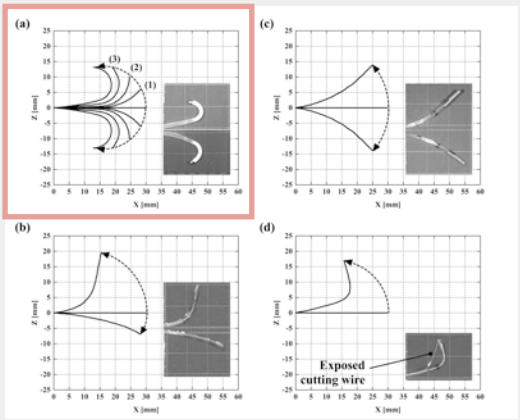


Chart (a) shows the catheter we developed, which has a wider range of motion on both sides compared to existing catheters (b)-(d).

02 Early detection of dementia using VR

Prof. Ishigaki Shinsuke
Department of Diagnostics and Therapeutics for Brain Diseases
Translational Research Unit
Molecular Neuroscience Research Center

Background and Methods

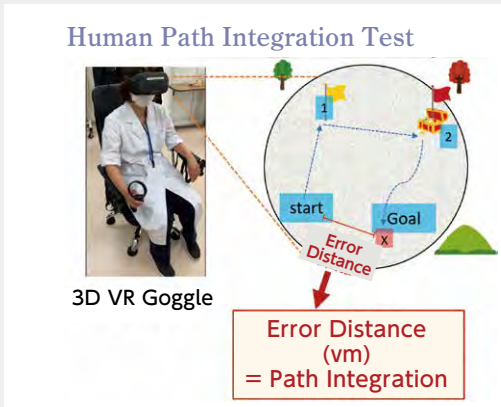
In collaboration with Gakushuin University, Fujita Health University, and The University of Tokyo, we conducted research focusing on the function of the entorhinal cortex, where the first neurofibrillary tangles occur in Alzheimer's disease. We investigated this relationship because the entorhinal cortex contains grid cells that control positional information in space, and navigation deficit becomes evident from early stages of Alzheimer's disease.

Results and Future Prospects

In our research, we investigated the relationship between the accumulation of phosphorylated tau in the entorhinal cortex, which is associated with the onset of dementia in Alzheimer's disease, and the decline in the brain's spatial cognitive function, "path integration." We developed a method that uses VR goggles to measure path integration, and discovered that path integration declines in the age group in which neurofibrillary tangles appear in the entorhinal cortex.

We also confirmed a similar decline in path integration in mice with suppressed olfactory bulb neural function created at SUMS and in Alzheimer's disease model mice, and proved the relationship between changes in the olfactory bulb and a decline in path integration.

The evaluation system for path integration using VR goggles is expected to enable early detection of dementia and improve the success rate of treatment interventions.



03 Japan Initiative for World-Leading Vaccine Research and Development Centers

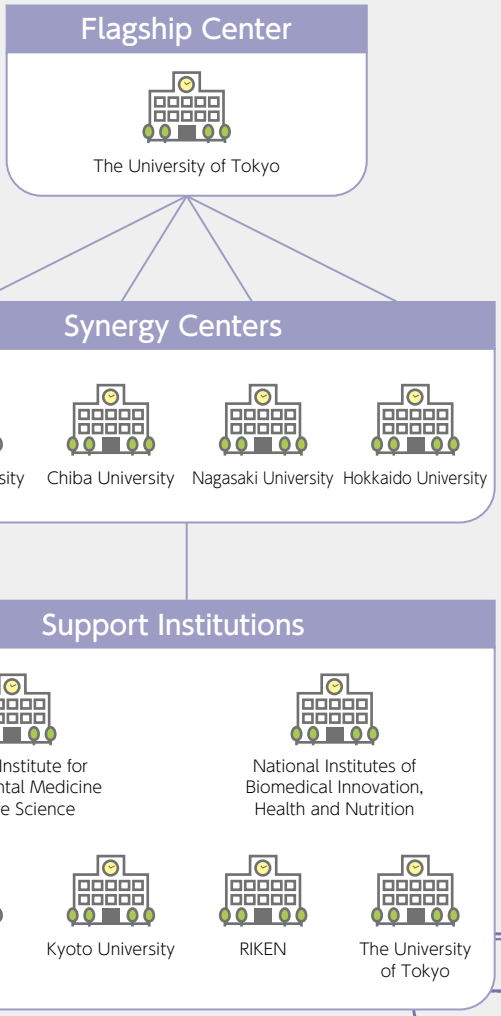
Prof. Itoh Yasushi
Division of Pathogenesis and Disease Regulation
Department of Pathology

Our university was selected by the Japan Agency for Medical Research and Development (AMED) as a support institution for its "Japan Initiative for World-Leading Vaccine Research and Development Centers."

Flagship Center	Conducts unprecedented world-leading R&D
Synergy Centers	Work in an integrated manner with the Flagship Center to exert synergistic effects with other centers
Support Institutions	Bear a support function, such as building common infrastructure necessary for vaccine development, for the Flagship Center and Synergy Centers

We will contribute to the development of Japanese-made vaccines by using our unique research resources and collaborating with other institutions.

Based on the "Strategy for Strengthening the Vaccine Development and Production System" approved by Cabinet on June 1, 2021, this world-leading R&D base with support institutions has been established with the aim of achieving rapid Japanese-made vaccine development in case of an emerging infectious disease outbreak. It promotes R&D and the establishment of systems that will enable a rapid response to any future pandemics.



As one of the support institutions, SUMS will contribute to strengthening research capabilities of vaccine studies by establishing and providing the common infrastructure necessary for the all-Japan vaccine R&D community.

Support for vaccine development

Support
- Stable supply of cynomolgus macaques through artificial breeding
- Infection experiments for vaccine evaluation

Advance
- Development of a new ovulation induction system for cynomolgus macaques
- Vaccine evaluation using cynomolgus macaque models with medical complications

In accordance with the Act on Welfare and Management of Animals and Standards relating to the Care and Keeping and Reducing Pain of Laboratory Animals issued by the Ministry of the Environment, our university has established regulations stipulating that animal experiments must be conducted appropriately in accordance with the 3Rs (Replacement, Reduction, Refinement) of animal experiments. These are the principles of animal experiments, more specifically: use alternative methods, reduce the number of animals used, and alleviate pain.

Animal experiments must be done after approvals by the Animal Experiment Committee, which reviews research plans and ethics. Researchers are allowed to proceed animal studies after acquisition of licenses and training to handle animals.

Clinical Practice

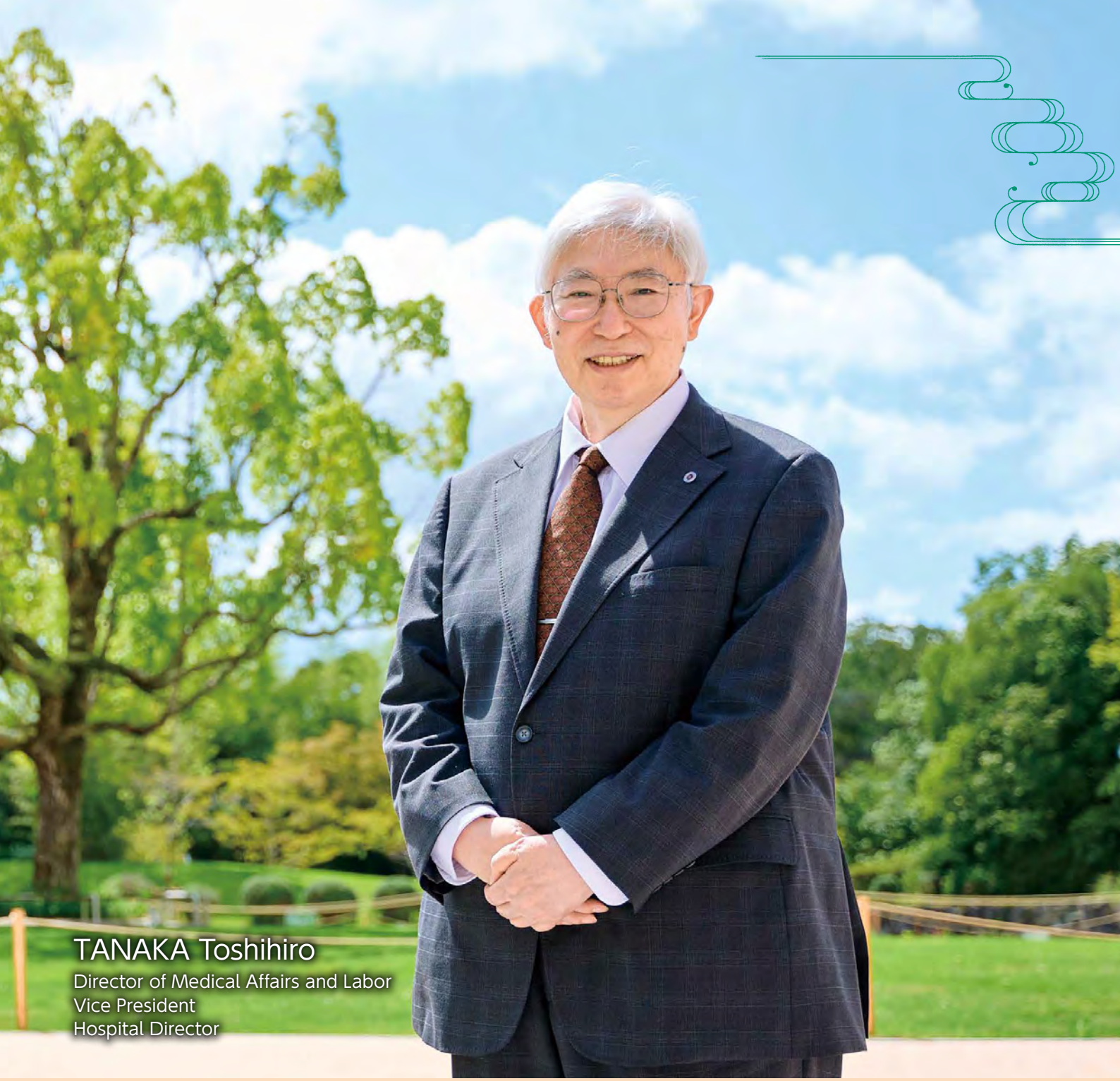
To face life

"Work-style Reform" has finally begun — The key is to increase the number of healthcare professionals —

We would like to introduce our flavor of human resource development to cultivate leaders in nursing science in Shiga, as well as our new Functionally Enhanced Building, together with the achievements of the Fourth Medium-Term Goals and Plans.

Progress of the Fourth Medium-Term Goals and Plans: We consider it vital to achieve the University's medium-term goals and plans. This update will outline the goals the hospital has set, as well as how they will affect our hospital, and Head of the Advanced Nurse Training Center Kitagawa and Deputy Head Fukada will explain the implementation of the well-regarded Advanced-Practice Nurses program and the CCOT introduced to improve safety at the hospital.

Functionally Enhanced Building (Building E): The first phase of construction has finally been completed and half of the building is now in use. Adviser to the Hospital Director Kunitomo will outline the history of its construction and the hospital's need for this building, and Prof. Kasama will give an overview of the Center for Clinical Research and Advanced Medicine, which has begun operating after function consolidation.



TANAKA Toshihiro
Director of Medical Affairs and Labor
Vice President
Hospital Director

Close-up "Advanced-Practice Nurses"

Prof. Kitagawa Hirotoshi (Head)
Prof. Fukada Akiko (Deputy Head)
Advanced Nurse Training Center

input

Increased Demand for Advanced-Practice Nurses

The advanced-practice training for nurses began in 2016, and 12 nurses have been completing the training every year since 2021. Currently, 37 advanced-practice nurses are working in ICUs, emergency wards, operating rooms, and other facilities.

In addition, the number of nurses playing cross-departmental roles is increasing, and they are also involved in tasks such as inserting PICCs (central venous catheters) and supporting the introduction of ventilators for patients with intractable neurological diseases. We select the specified practices that meet the needs of doctors and patients, and train nurses in an environment created to make it easy for them to participate.

Fourth Medium-Term Plans and KPI

Number of advanced-practice nurses assigned to the University Hospital

Goal: At least 50 nurses by FY2027

2nd Year: Steady increase

FY2023 Achievement: 45 nurses

output

Providing higher-quality team medicine

Fourth Medium-Term Plans and KPI

Number of RRS activation from CCOT a year

Goal: At least 21 cases by FY2027

2nd Year: Steady progress

FY2023 Achievement: 9 cases

The RRS* is a system that prevents patients from becoming seriously ill by contacting the critical care team and intervening early if any abnormalities or concerns arise in the inpatients' vital signs. To successfully activate this RRS, at our Hospital, nurses in the CCOT*, who have completed the clinical reasoning and respiratory care areas of the specified advanced-practice training, do rounds to detect abnormalities early and prevent patients from becoming seriously ill or suffering a sudden change in condition.

*RRS: Rapid Response System, CCOT: Critical Care Outreach Team

Contributing to the Work-style Reform and reducing the load on physicians

Fourth Medium-Term Plans and KPI

Number of cases of general anesthesia performed by nurses with advanced practice a year

Goal: At least 900 cases by FY2027

2nd Year: Steady increase

FY2023 Achievement: 855 cases

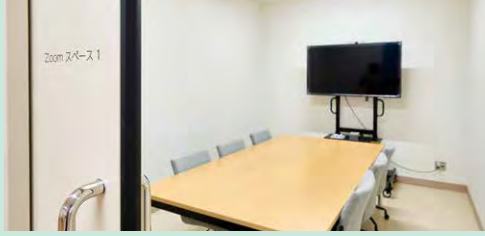
Nurses who have completed the Specified Medical Procedures in Advanced Nursing Practice Course specialized in anesthesia work with anesthesiologists to provide pre-operative, intra-operative and post-operative care for patients undergoing anesthesia.

In particular, they are responsible for intra-operative anesthesia management, focusing on the specified activities in the intra-operative anesthesia management area package, and they share tasks with anesthesiologists by setting numerical targets for the number of cases and medical fees.

outcome

Supporting the Future of Medicalcare in Shiga

The training system for specified medical procedures is an innovative system that allows nurses who have completed training to perform medical procedures that were originally carried out by doctors, based on written procedures. This makes it possible to provide medical care in a timely manner even when doctors are not present, and also gives doctors more time to deal with patients who are in more serious conditions. SUMS, the only designated training institution in Shiga, aims to promote patient-centered medical care, and has been actively conducting training for specified acts, producing 164 graduates in eight years. We are confident that these efforts will support the future of acute and chronic medical care, mainly in the prefecture. Demand is increasing for advanced-practice nurses.

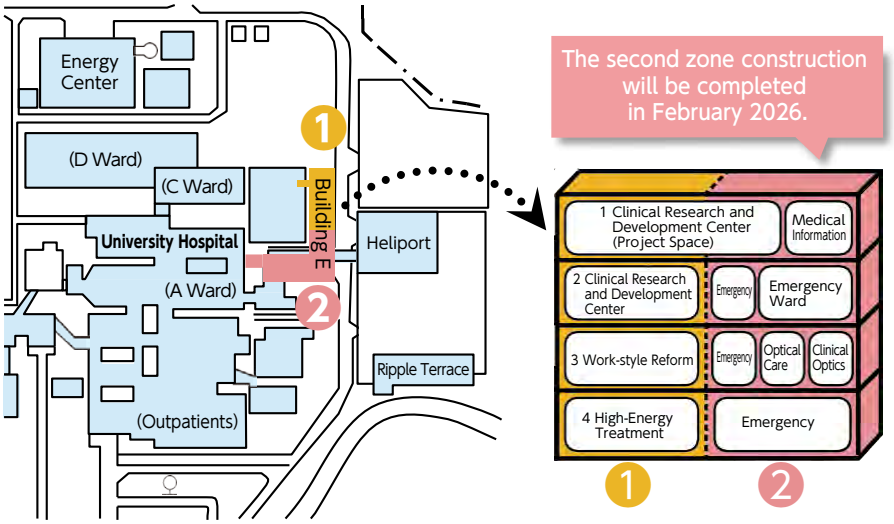


Focus on Functionally Enhanced Building

Start of Operation: Building E (Functionally Enhanced Building, Section 1)

Construction of the Phase 1, which began in May 2022, was completed in March 2024, and the facility has been in use since April of this year. The main points of functional enhancement for Phase 1 are further improvement in the precision of the high-energy therapy facility and enhancement of the medical facility environment. The next point is that the clinical research and development center, which until now has been operating in a dispersed manner within the hospital, has been consolidated into one location, allowing for efficient and integrated operation. Furthermore, in response to the Work-style Reform that began in April, we have prepared a space where residents and medical staff can concentrate on their studies and take breaks and naps. Excavation work began on the site of Phase 2 of the construction project in August. Piling work has been completed successfully, and work has begun on installing the building's foundation. Phase 2 construction work is progressing based on plans to strengthen the functions of the Advanced Emergency and Critical Care Center, the Department of Ophthalmology and Medical Imaging, and the Department of Medical Information. The hospital is scheduled for completion in February 2026.

Kunitomo Ryoichi, Financial Management and Functional Enhancement



Consolidation of Functions at the Clinical Research and Development Center

Director of the Clinical Research and Development Center, Prof. Kasama Shu

Changes in the Environment Surrounding Clinical Research

In recent years, the environment for clinical research has been changing rapidly, with stricter regulations, technological advances, and globalization, making research activities more complex and diverse. In the past, our university was not fully prepared to deal with these changes, and there were problems with data management and analysis processes. However, we have since identified the problems and taken steps to solve them, and we have been working to consolidate functions and optimize processes. We hope to contribute to the development of next-generation medicine by taking an integrated approach to achieve faster, higher-quality research results.

Strengthening and consolidating functions at the Clinical Research and Development Center

The Center is working to strengthen and consolidate functions in order to improve the quality and efficiency of clinical research. We are working to optimize the research process by quickly responding to the latest technologies and regulatory changes and by consolidating our expertise in clinical research. We believe that this will lead to more efficient integrated data management and analysis, as well as cost reductions and improvements in research quality. Since the new system started in April 2024, we have recovered from past problems and are working to contribute to the innovation of next-generation medicine and provide better results.

International Exchanges

To Contribute to the International Society from Shiga

Number of Partner Institutions

13 countries **26** institutions

Number of Faculty Overseas Dispatch

26 countries **123** staff members

Number of Students Overseas Dispatch

7 countries **14** students

Number of International Students

From **7** countries **36** students

(As of May 1, 2024)

New tackles to link World and Shiga at 50-year juncture

Joint Degree Program with The National University of Malaysia

SUMS and The National University of Malaysia, Universiti Kebangsaan Malaysia (UKM), have conducted exchanges and joint research since signing the academic exchange agreement in 2011.

Japan and Malaysia – crossing social backgrounds in two countries

While Japan has already become super-aged society, Malaysia is also entering a similar situation. The increase in life expectancy and rapid increase in the elderly population due to economic development is accompanying a rapid increase in diseases such as dementia, cancer and lifestyle-related diseases, and other illnesses arising from such aging of society.

To become university that spreads wings to the world through establishing a joint degree program

In view of the situation described above, enhancing exchanges between both universities, we are planning to establish a new doctoral program (the SUMS-UKM International Joint Ph.D. Program in Ageing Science) based on the Graduate School of Medicine, Doctoral Program(Medical Science). This will allow education focused on aging, which is a social issue in both countries, to be carried out at both universities and to award degrees. In this doctoral program, students stay and study at each other's university for a set period of time. In an environment that exposes them to different cultures and diverse values, and to an aging situation that differs from that of each students' own countries, we aim to train researchers with the ability to understand diversity and gain an international perspective through conducting research under educational and research guidance from both universities.

At this 50th-year juncture, realizing the SUMS philosophy to become a university that "plays an active part in the world," we will advance our plan to promote the dissemination of outstanding research results to the world and attract more qualified personnel.

A joint degree is a single academic degree jointly conferred on students who have completed a single joint educational program established by universities that jointly set up the said program.

The Fourth Medium-Term Plan Key Performance Indicators

Number of joint degree program or equivalent programs

Goal **At least 1 in 6 years**

almost achieved

We plan to establish an international joint doctoral program.

Left: President Uemoto Shinji, SUMS
Right: Prof. Marina Binti Mat Baki, Dean of Faculty of Medicine, UKM

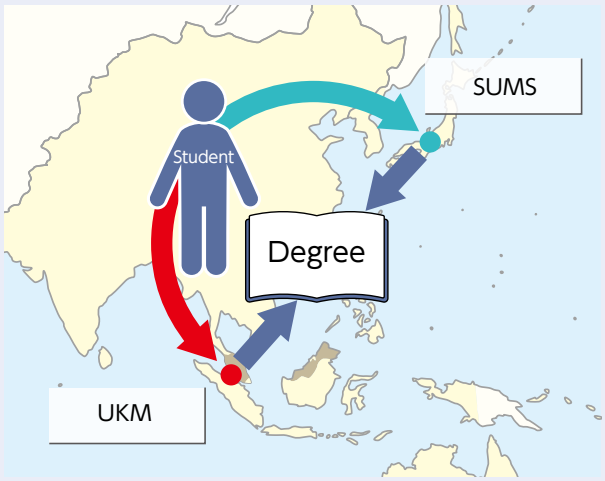
Assoc. Prof. Goon Jo Aan
JDP Committee member
Biochemistry, UKM

Enhancement of collaboration

This Joint International PhD Program is one of the achievements of collaboration between UKM and SUMS that has existed since 2012. Our collaboration has had a significant impact in various fields, especially in postgraduate research and training, and had helped produce high-quality graduates. It is our (UKM's) first of its kind to be offered by the Faculty of Medicine. I hope this program will further strengthen collaboration, and further enhance bilateral relations in advancing medical knowledge and international medical research between UKM and SUMS.

Degree acquisition process

#1 Students in this program stay and study at each other's university for a set period of time. They receive education and research guidance under both universities' programs.
#2 The degree will be jointly awarded in the names of both universities.



Process Example: Starts from admission at SUMS

Study term at SUMS → Study term at UKM → Study term at SUMS → Examined by/Awarded in the name of – both universities

*The study term at SUMS/UKM of students starting admission at UKM is reversed, in principle.

50th Anniversary International Symposia

As one of the SUMS 50th anniversary celebrations, we held a Commemorative Symposium on the Establishment of JDP and an International Symposium on Study Abroad for Undergraduates and High School Students.

The latter was run by SUMS undergraduate students, in which they presented each student's experience of studying abroad, providing many students inside and outside SUMS with impressions of how it matters and is attractive to study abroad.

滋賀医科大学は
開学50周年
50th ANNIVERSARY

Running symposium for undergraduates and high school students

The purpose of this event was to create an opportunity for undergraduate and high school students to become willing to try to expand their international perspectives or to study abroad and gain experience.

In selecting speakers, we considered the following: inviting people with different statuses, affiliations, and stages in studying abroad, so participants could learn about the value of overseas experiences from a wide range of perspectives. We also held a small gathering after the symposium so speakers and participants could interact with each other in a relaxed atmosphere. As such, participants had opportunities to hear more specific information and get advice from speakers beyond the lectured contents. While enhancing my own perspective, I would like to continue to provide opportunities like this and contribute to international exchange and support for studying abroad.

Mai Kiritoshi
International Symposium Working Group Member, 4th-year Medical Student

IWASE Shizuo

Director of General Affairs, Finance and Facilities
Vice President
Secretary General
Internal Control Manager

Management

Passing the baton as a financially sound organization 10, 20, and even 50 years from now

Striking a balance between managing business operations after incorporation and the management of the hospital, which is the rock of community healthcare

As we celebrate our 50th anniversary, we will continue to focus on sound fiscal administration while striking a balance between training medical personnel, conducting state-of-the-art medical and healthcare research, developing nursing science, and providing medical care and hospital management as a rock of community healthcare. All these are essential elements of a university supported by its local community, that contributes to the community, and plays an active part in the world. We must build a stronger organizational foundation, looking ahead to the next 10, 20, and 50 years, to fulfill our role and responsibility of passing the baton to the next generation.

We will continue to extend the path our predecessors have forged over the past five decades, and as a sustainable organization, we will examine the initiatives we have taken to date, create new proposals, and implement them through the teamwork of SUMS faculty and staff.

In addition, to keep growing and developing as a healthy organization, the secretariat must act with confidence and accountability as an administrative professional team to operate a system of appropriate execution and internal auditing. We will strive to ensure transparency in relation to operating and management status and the decision-making process, and to fulfill our accountability to our stakeholders.

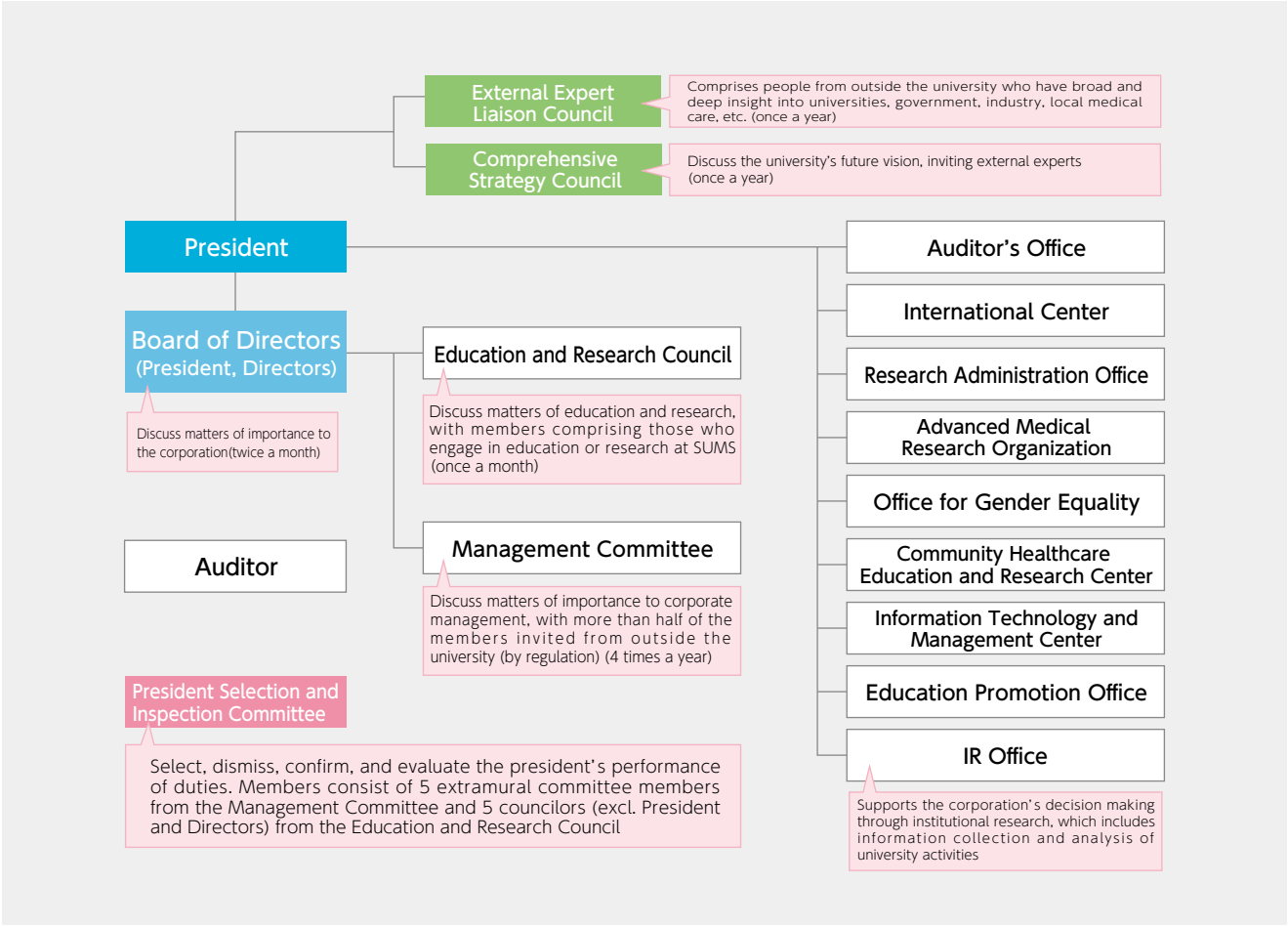
Finally, as we endeavor to play our part in realizing the University's philosophy and mission, we have drawn up a concept of “Ideal Staff” as an avatar for developing our administrative team. We embrace the opportunity for all administrative staff to collaborate for the development of SUMS and its financial soundness.

Governance of SUMS

Based on the National University Corporation Act, Board of Directors, Management Committee, and Education and Research Council have been established to discuss matters of importance. Board of Directors discusses matters of importance and comprises six members, namely the President and five Directors. To ensure transparency and objectivity, Board of Directors meetings are attended by Inspectors or Vice Directors where necessary. Thus, we manage our corporation with consideration for the opinions of various stakeholders both inside and outside the University, such as Comprehensive Strategy Council and External Expert Liaison Council.

Director	Director	Director	President	Director	Director
TSUJIKAWA Tomoyuki	MATSUURA Hiroshi	TOOYAMA Ikuo	UEMOTO Shinji	TANAKA Toshihiro	IWASE Shizuo

SUMS Management and Operation Organization Chart



System to support the President's leadership

To assist himself, the President appoints five Directors, as well as an Adviser to the President and Vice Directors, who will be in charge of special assignments.

Adviser to the President
HIRATA Takako
Gender Equality Promotion

Vice Director
ITOH Yasushi
Research Promotion

Vice Director
HITOSHI Seiji
Research Promotion

Vice Director
KASAMA Shu
Clinical Research

Vice Director
KATO Yutaka
International Affairs

Vice Director
AGATA Yasutoshi
International strategy

Vice Director
KITAGAWA Hirotoshi
Labor

Vice Director
MUKAISHO Ken-ichi
Basic Medical Science and Community Health Care Education Reform

Vice Director
ITOH Toshiyuki
Clinical Education Reform

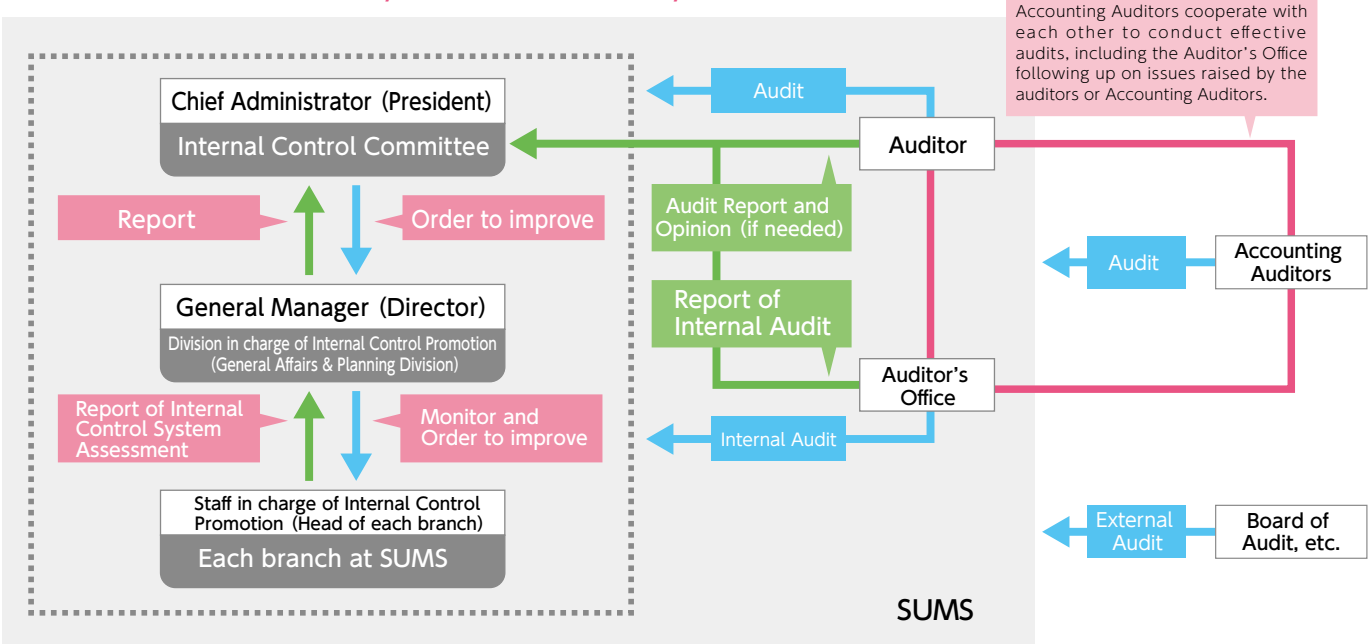
Audit of proper and efficient business execution

SUMS has 2 audits in charge of auditing the operations of the corporation. And, in response to a partial revision of the National University Corporation Act, we have strengthened our auditing system from this fiscal year.

Auditor
YAMASHINA Shozo
Expertise in organizational and accounting operations

Auditor
FUNAHASHI Keiko
Expertise in compliance and legal affairs

SUMS Internal Control System and Audit System



Financial information

An Overview of the Balance Sheet

The balance sheet is a record of the assets, liabilities, and net assets on the day of settlement (March 31st), showing the University's financial position.

(Unit : billion yen)

Assets	FY2022	FY2023	-/+
Fixed Assets	34.50	37.05	2.55
Land	10.16	10.16	0.00
Buildings and Structures	14.10	16.85	2.75
Tools, Instruments, and Equipment	5.93	5.95	0.02
Books	1.37	1.38	0.01
Other Fixed Assets	2.93	2.69	-0.24
Current Assets	17.46	18.78	1.32
Cash and Deposits	9.80	12.70	2.90
Accounts Receivable	7.14	5.50	-1.64
Other Current Assets	0.51	0.58	0.07
Total Assets	51.97	55.84	3.87

(Unit : billion yen)

Liabilities	FY2022	FY2023	-/+
Fixed Liabilities	12.39	14.09	1.70
Contra-Accounts for Assets	0.57	0.50	-0.07
Long-term Borrowings	10.11	11.59	1.48
Long-term Lease Obligations	1.29	1.29	0.00
Long-term Amounts Payable	—	0.24	0.24
Other Fixed Liabilities	0.41	0.45	0.04
Current Liabilities	12.34	14.25	1.91
Liabilities for Grants for Management Expenses	0.40	0.40	0.00
Donations Liabilities	1.99	2.03	0.04
Advances Received for Contracted Research	0.90	1.43	0.53
Long-term Borrowings (within FY)	1.25	1.37	0.12
Amounts Payable	6.35	7.44	1.09
Lease Obligations	0.36	0.47	0.11
Other Current Liabilities	1.07	1.08	0.01
Total Liabilities	24.74	28.35	3.61

Net Assets	FY2022	FY2023	-/+
Stated Capital	14.09	14.09	0.00
Capital Surplus	5.37	6.71	1.34
Retained Earnings	7.75	6.67	-1.08
(Unappropriated Retained Earnings for the period in Retained Earnings)	3.92	0.41	-3.51
Total Net Assets	27.23	27.48	0.25

Main factors behind changes

Assets

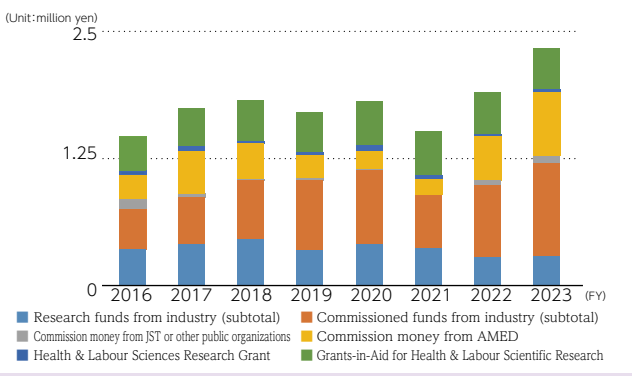
- Increase in Building and Structures led by Completion of Phase 1 construction of building the Functionally Enhanced Building of the University Hospital and the RI Research and Animal Experiment Facilities (2.75 billion yen)
- Increase in Cash and Deposits (2.9 billion yen) led by the increase in Long-term Borrowings (compared to the previous FY) due to payments of Phase 1 construction of the Functionally Enhanced Building of the University Hospital and other facilities

Note: Totals may not add up due to rounding down to the nearest unit.

Liabilities

- Increase in Long-term Accounts Payable (0.24 billion yen) due to planned payment for completion of the Functionally Enhanced Building of the University Hospital
- Increase in Accounts Payable (1.09 billion yen) due to planned payment for Phase 1 completion of the Functionally Enhanced Building of the University Hospital

Acquisition of external funds (including competitive funds)



What has been increasing the external funds?

We have been conducting joint research with private companies. Furthermore, from FY2022, we are enhancing the establishment of joint research courses. From this table, you can see that despite the impact of the COVID-19 pandemic, efforts to promote collaborative research are boosting the overall figure.

Overview of the Profit and Loss Account

The Profit and Loss Account is a record of the expenses and revenues incurred in projects implemented during one accounting period (from April 1 to March 31 of the following year), showing how the University has been administered. The Expenses Table shows the costs incurred for each purpose, such as education, research, and medical services. The Revenue Table shows the revenues generated from projects implemented in accordance with the financial resources of the expenses incurred during their implementation.

(Unit: billion yen)

Expenses	FY2022	FY2023	-/+
Ordinary Expenses	34.23	35.21	0.98
Education and Research Expenses	1.82	1.70	-0.12
Medical Service Expenses	16.89	18.12	1.23
Contracted Research Expenses	0.78	0.88	0.10
Personnel Expenses	14.03	13.77	-0.26
General and Administrative Expenses	0.63	0.66	0.03
Others	0.04	0.05	0.01
Extraordinary Loss	0.05	0.01	-0.04
Gross Income	3.92	0.41	-3.51

(Unit: billion yen)

Revenues	FY2022	FY2023	-/+
Ordinary Revenues	35.45	35.38	-0.07
Revenues from Grants for Management Expenses	5.94	5.67	-0.27
Revenues from Student Fees	0.65	0.65	0.00
Revenues from the University Hospital	25.17	26.56	1.39
Revenues from External Funds	3.38	2.05	-1.33
Others	0.29	0.42	0.13
Extraordinary Income	2.63	0.01	-2.62
Reversal of Reserve Fund Carry-over and Reserve Fund for Specific Purposes from the previous medium-term target period	0.12	0.01	-0.11

Main factors behind changes

Expenses

- 1.23 billion yen increase in medical expenses, which is led by increases in expenses for medical supplies such as injectables or Special Treatment Materials AND increases on outsourcing due to Phase 1 construction of the Functionally Enhanced Building of the University Hospital or medical linac renewal
- 0.26 billion yen decrease in Personnel Expenses, mainly due to a decrease in retirement allowances associated with a fall in the number of retirements and a decrease in additional hazard pay during the COVID-19 pandemic

Revenues

- The increase in Revenues from the University Hospital (1.39 billion yen) was led by improvement in the Bed Occupancy Rate and increases in the Number of Surgical Operations Performed and Number of Emergency Patients
- The decrease in Revenues from External Funds (1.33 billion yen) was due to a decline in Revenues from Servicing Grants associated with the end of COVID-19-related subsidy payments

Note: Totals may not add up due to rounding down to the nearest unit.

Utilizing Financial Indicators

Financial indicators calculated through the financial statements above are useful resources for understanding how the national university cooperation has been administered. Here in this small section is an introduction of the main financial indicators from the FY2023 statements.

The University's current administration can be better seen through indicators' examination, not only checking single FY records, but also analyzing the changes between fiscal years, or the difference factor compared to other organizations.

Self-revenue ratio
82.5%
The proportion of Self-revenue (consisted of Student Fees, Revenues from the University Hospital, Grants-in-Aid for Health & Labour Scientific Research, or the like) in SUMS Ordinary Revenues

Educational expenses ratio
1.2%
Percentage of expenses used for Education from corporate operations (Education, Research, or Medical Services)

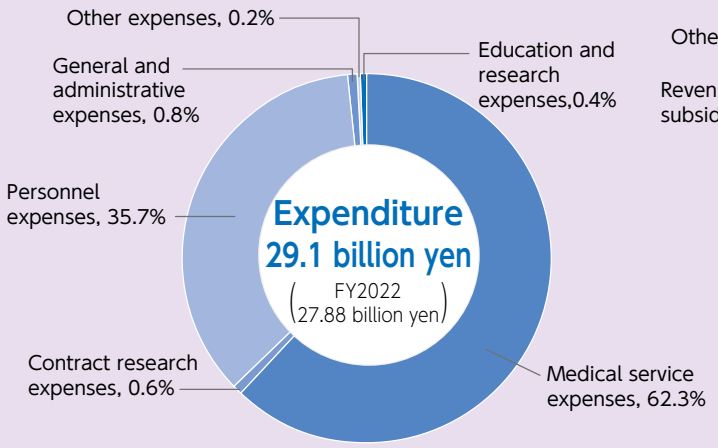
Research expenses ratio
6.0%
Percentage of expenses used for Research from corporate operations (Education, Research, or Medical Services)

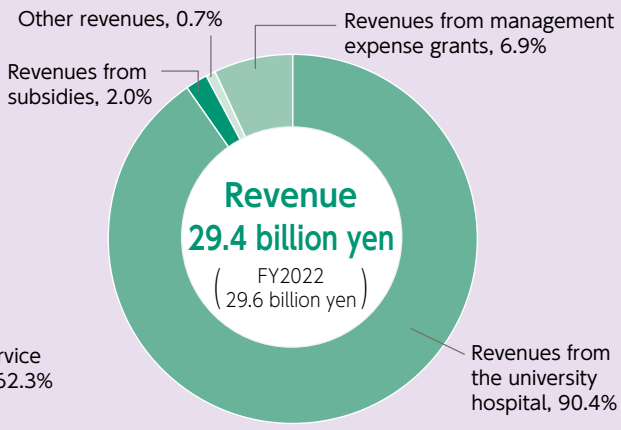
Personnel expenses ratio
39.9%
Percentage of personnel expenses from corporate operations (Education, Research, or Medical Services)

Educational expenses per student
376,000yen
Amount of education expenses spent per student from corporate expenses

Research expenses per faculty member
5,410,000yen
Amount of research expenses spent per faculty member from corporate expenses

University Hospital Financial Information FY2023

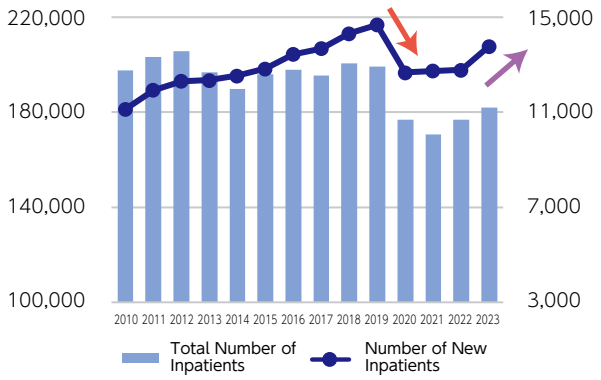




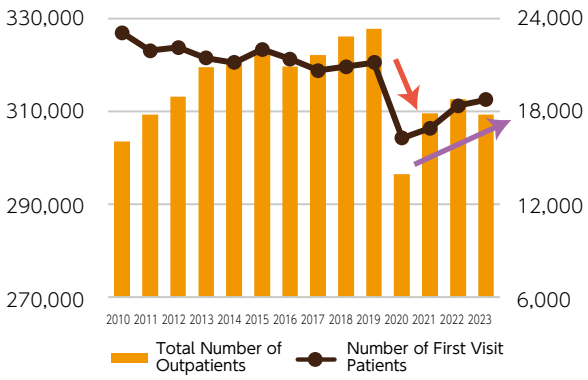
Since the downgrading of COVID-19 to category V in May 2023, we have been trying to restore hospital management standards to their pre-pandemic levels. Total Number of Inpatients and Number of New Inpatients had been decreasing since the pandemic, but from FY2023, the latter has been rising again. While Total Number of Outpatients continues to show a downward trend, the Number of First-Visit Patients has continued to increase after a sharp decline in FY2020, which can be interpreted as a recovery trend.

In FY2023, the number of surgeries reached a record high. In addition, medical claims, which decreased for a time in FY2020, were able to secure revenues significantly higher than before the COVID-19 period. These show a recovery in both functional and managerial aspects. Number of Surgical Operations Performed reached the highest level ever in FY2023. Charges for Medical Service Fee Claims, which once declined in FY2020, rose to produce revenues that far exceeded pre-pandemic levels. These show a recovery in both functional and managerial aspects.

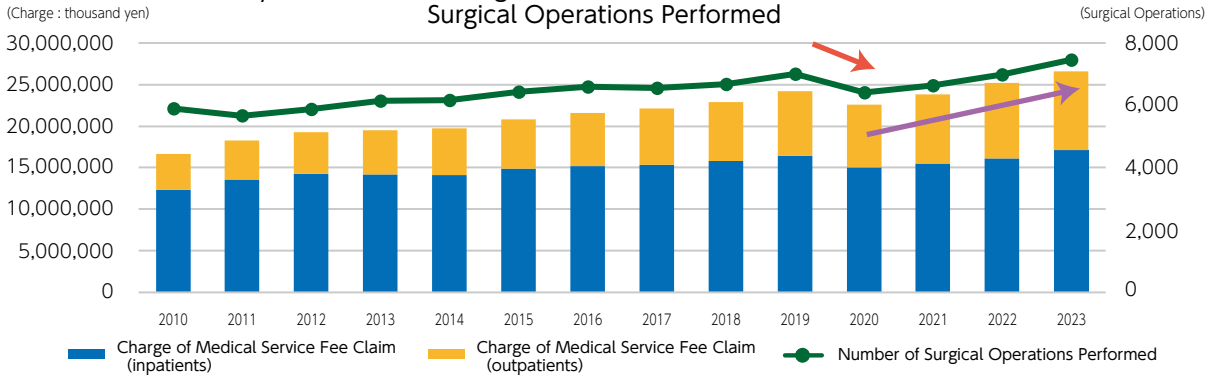
Year-on-year Growth of Total Number of Inpatients and Number of New Inpatients



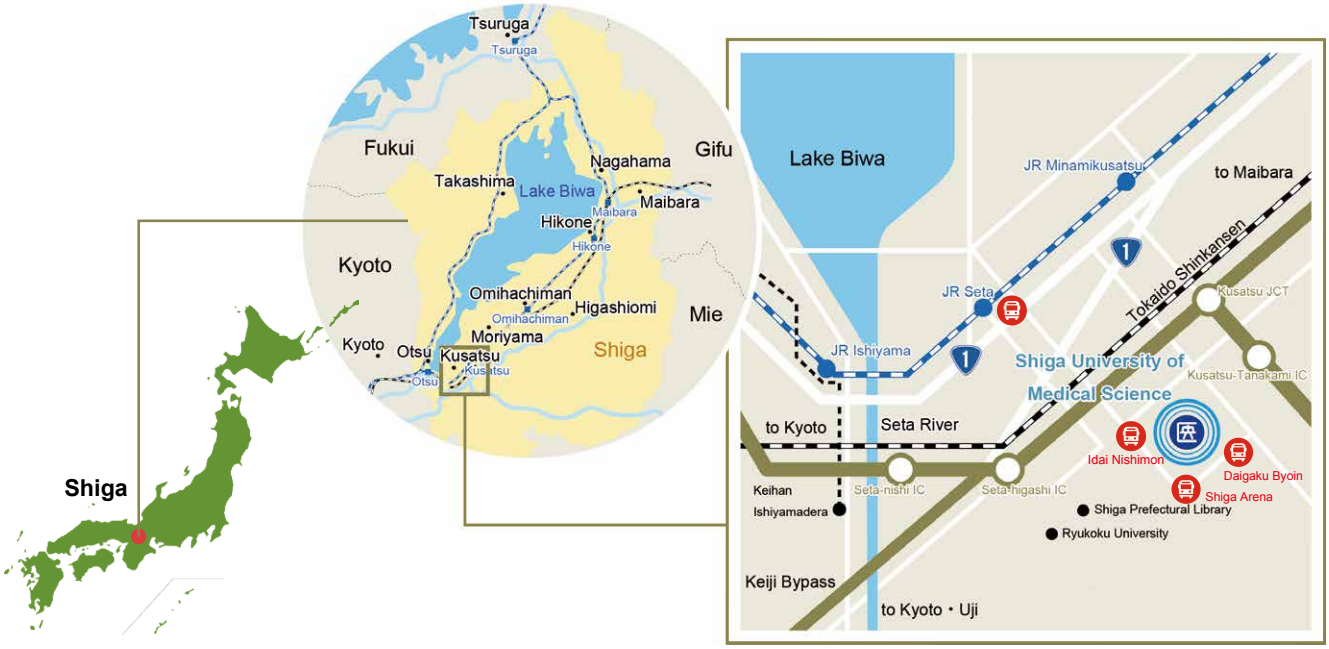
Year-on-year Growth of Total Number of Outpatients and Number of First Visit Patients



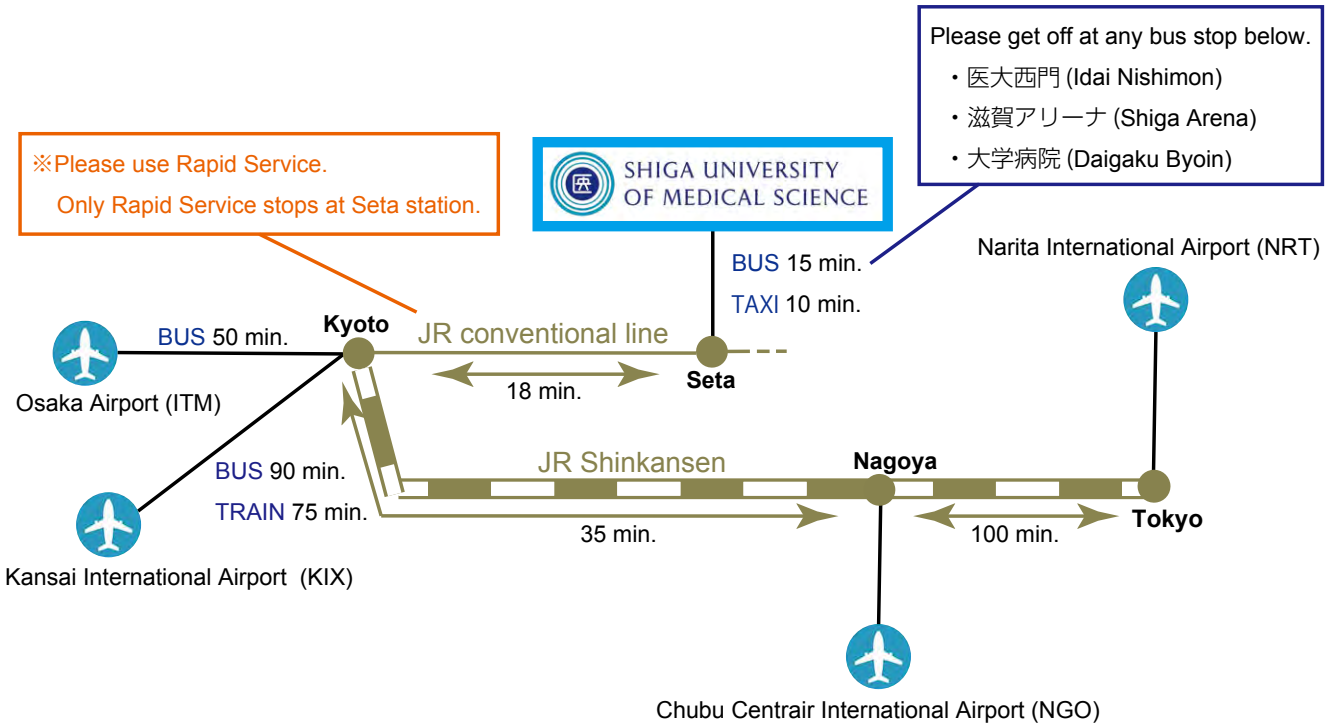
Year-on-year Growth of Charge of Medical Service Fee Claim and Number of Surgical Operations Performed



■ Location of SUMS



■ Access to our campus



※From Osaka/Kyoto, please use "the JR Biwako Line for Kusatsu, Yasu, Maibara and Nagahama" at Kyoto Station.
(Do Not use "the JR Kosei Line for Omi-maiko, Omi-imazu and Tsuruga.")

Integrated Report Website

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(Excluding national holidays and year-end/New Year holidays)