



PROSPECTUS 2024-2025

Row out into a sea of chaos; go beyond the horizon of creativity

The Pursuit

Continuous Self-Development

> Collaboration with the Local, Regional and International Community

The Nurturing of Well-Rounded

Human Beings

The Creation of

New Forms of Knowledge

Hiroshima University Guiding Principles

We embrace the university's founding principle of "a single unified university, free and pursuing peace," striving to fulfill our missions as a national university under five guiding principles.

STRIVING TO BECOME A 'UNIVERSITY OF PEACE' CHOSEN BY THE WORLD

UNIVERSITY OF WORLD-WIDE REPUTE AND SPLENDOR FOR YEARS INTO THE FUTURE

Hiroshima University opened its doors as a peace-pursuing university in 1949, four years after the atomic bomb was dropped, amidst the remaining scars of the nuclear devastation. While advancing cutting-edge research and nurturing highly skilled professionals, the university has always upheld "The Pursuit of Peace" as a guiding principle. It founded the nation's first academic research institution dedicated to peace studies and has worked tirelessly on peace-related investigations and research. Today, Hiroshima University has grown into one of Japan's leading comprehensive research universities, with 12 schools, four graduate schools, and one research institute, contributing to societal development through its diverse expertise. Last year, we formulated the "President 5 Initiatives for Peace Sciences: Creating Peace to Realize Safety and Security" as key objectives to realize the university's future vision. In 2024, Hiroshima University celebrates its 75th anniversary, and it marks the 150th anniversary since the founding of its oldest predecessor school, Hakushima School. Through numerous commemorative projects, such as wrapped trams and buses, participation in the Hiroshima Flower Festival, and sponsoring a game of the Hiroshima Toyo Carp baseball team, we express our gratitude for the overwhelming support we have received and renew our commitment to moving forward with Hiroshima. Hiroshima University will use this milestone as momentum to continue its efforts to become a "University of Peace" loved by the community and chosen by the world. We remain dedicated to fostering more "peace-pursuing cultured individuals with an international mindset and a challenging spirit" and aim to become a "University of World-wide Repute and Splendor for Years into the Future."

OCHI Mitsuo

President Hiroshima University





Hiroshima University 75th + 75th Anniversary

Hiroshima University traces its oldest roots to Hakushima School, founded in 1874, and was established as a new university in 1949. In 2024, we celebrate the 75th anniversary of the university's founding and 150 years since the formation of its oldest predecessor school. To commemorate this milestone, a variety of celebratory projects are





75 + 75th Anniversary Wrapped Trams and Buses Project



Information on the events/commemorative projects: https://150th.hiroshima-u.ac.jp/event/ (Page in Japanese)



THE Impact Rankings



Ranks 3rd in Japan for 3 consecutive years Secures sole position at 1st place in Japan for 3 SDGs Top 100 globally in 7 categories, the most in Japan



In the 2024 THE Impact Rankings, which measure universities' societal contributions based on SDG indicators, Hiroshima University ranked within the top 100 worldwide in seven SDG categories, the most among Japanese universities. In the overall rankings, the university placed 3rd in Japan for the third consecutive year (ranked 101-200 globally out of 1,963 universities)



AY2023 Ministry of Education, Culture, Sports, Science and Technology

Selected for the Program for Forming Japan's Peak Research Universities (J-PEAKS)

This program aims to strengthen Japan's research capacity and drive innovation by developing universities comparable to the world's leading institutions. Out of 69 submissions, Hiroshima University's project, "Realizing an Ecosystem for Semiconductor, Metamaterials, and Bio-Industry Clusters through Visualization Technologies Using Synchrotron Radiation," was successfully selected as one of only 12 adopted proposals.



J-PEAKS

Grant Amount

(5 years)

Grant Amount

(10 years)

billion yen

billion ven

Announcing the acceptance of the university's proposal President Ochi (December 26, 2023)

Together with its partner university, Kobe University, and other domestic and international universities and research institutions, the project will promote fusion research in the fields of semiconductors, metamaterials, regenerative and cellular medicine, and drug discovery. To address these issues, Hiroshima University will enhance its own research capabilities through a strategy based on the core technology of material visualization using synchrotron radiation in ultraviolet (UV) range, which is rare worldwide.

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AY2022 Ministry of Education, Culture, Sports, Science and Technology

Selected for the World Research Premier International Research Center Initiative (WPI)

International Institute for Sustainability with Knotted Chiral Meta Matter (WPI-SKCM²)

This program aims to establish world-class research hubs, and Hiroshima University was the first institution in the Chugoku-Shi-koku region to be selected. WPI-SKCM² researchers work at the intersection of knot topology and chirality across disciplines to address global problems. Notably, creating artificial materials by design to address climate change.



WDI

https://wpi-skcm2.hiroshima-u.ac.jp/

Embodying its founding principle of "a single unified university, free and pursuing peace," Hiroshima University is one of the largest comprehensive research universities in Japan. Today, HU is making steady progress as a global university, taking on worldwide challenges and strengthening its global educational network by signing international exchange agreements with universities around the world and opening overseas bases at strategic locations.

Organization for Education and Research (As of April 1, 2024)

	National University Corporation Hiroshima	a University
Schools (undergraduate) Libraries	
School of	Department of Integrated Arts and Sciences Central Library	
Integrated Arts and Sciences	Department of Integrated Global Studies	
School of Letters	Department of Humanities West Library	
	Cluster 1 (School Education)	
	Cluster 2 (Science, Technology and Society Education)	ibrary
School of Education	Cluster 3 (Language and Culture Education)	
	Cluster 4 (Life-long Activities Education) Headquarters	for Education
	Cluster 5 (Fundamentals for Education and Human Development)	
School of Law	Department of Law Research Inst	tute for International Advanced Studies
	Department of Economics	stitute for Sustainability with Knotted Chiral Meta Matter
School of Economics	Center for Research on Regional Economic Systems	· · · · · · · · · · · · · · · · · · ·
	Department of Mathematics	Usage Facilities
	Department of Physics Research Institu	te for Synchrotron Radiation Science
	Department of Chemistry	
School of Science	Department of Biological Science	lities for National Universities in the Chugoku/Shikoku Area
	Department of Earth and Planetary Systems Science	
	Center for Developing Pioneers in Science	Juse
	Program of Medicine	n and Pasearch Facilities on Campus
School of Medicine	Program of Health Sciences	re for Semiconductor Engineering
	Program of Dentistry	e for Higher Education
School of Dentistry	Program of Oral Health Sciences	
	Program of Pharmaceutical Sciences	Contar for Pasic Decearch and Development
School of	Program of Medicinal Sciences	of Clobal Higher Education
Pharmaceutical Sciences	Experimental Station of Medicinal Plants	
	Cluster 1 (Mechanical Systems: Transportation: Material and Energy)	
	Cluster 2 (Electrical Electronic and Systems Engineering)	eace
School of Engineering	Cluster 2 (Lecentral, Electronic and Systems Engineering)	
	Cluster 4 (Civil Engineering and Architecture)	
	Department of Applied Biological Science	im Longuage Descende and Education
School of	Livestock Research Center	
Applied Biological Science	Training and Research Vessel TOYOSHIO MARIL	
School of Informatics and Data Science	Department of Informatics and Data Science	Contor
	Amphibian Para	arch Contor
Graduate Schools		
	Division of Humanities and Social Sciences	
	Division of Educational Sciences	Mind and KANISEL Sciences Desearch
Graduate School of Humanities and	Division of Educational Sciences	
Social Sciences	Division of Protessional Development for reachers and school Leaders	In Disite Magazalari (Magafataria) Education and Descent Conten
	Ioint International Master's Programme in Sustainable Development	ty Digital Monozukuri (Manufacturing) Education and Research Center
	(Hiroshima University – University of Graz)	esearch Center for Artificial Intelligence and Data Innovation
Graduate School of Advanced	Division of Advanced Science and Engineering Ine IDEC Institution	te
Graduate School of	(Hiroshima University – Leipzig University) Academic-Environ	when social Governance Science and Technology Research Center
Integrated Sciences for Life	Division of Integrated Sciences for Life	ISTITUTE OF INNOVATION FOR THE FUTURE
Graduate School of Biomedical	Division of Biomedical Sciences	Printy PSI GMP Center
	Division of Integrated Health Sciences	Diversity & Inclusion
Graduate School of Innovatio	n and Practice for Smart Society Seto Inland Sea	Larbon-neutral Research Center
	Global Campus I	nstitute, Hiroshima University
Advanced Course		
Special Course of Special Sup	port Education Joint Usage Fa	acility on Campus
	Harassment Cor	isultation Office

Attached Schools

Attached Research Institute

Research Institute for Radiation Biology and Medicine Division of Radiation Information Registry

Hospital

Overseas Network and Bases (As of May 1, 2024)

Hiroshima University has international exchange agreements at the university level in 56 countries and regions, as well as at the faculty level in 55 countries and regions. In order to support the continued development of our global campus, the university established the Global Campus Institute in April 2024. We are also working on creating overseas co-creation ecosystems (hub centers) that will serve as the core for expanding and enhancing our network with international universities and regions.

*University-level international exchange agreements have been concluded in countries/regions listed on the map. The bullet points (•) indicate the names and locations of our overseas bases (note that some names are still being finalized).



University Offices Outside Hiroshima Prefecture

The Tokyo Office supports Hiroshima University's teachers and staff in their activities in the Tokyo area and students in their job-hunting activities. The Osaka and Fukuoka Branches provide consultation services on college admission. In the fall of 2022, "Kiteminsai Lab" was opened for use as a coworking space and to sell industry-academia

collaboration products.





2F Saiwai Building, 1-3-1 Uchisaiwai-cho, Chiyoda-ku, Tokyo

Office of Admissions, Osaka Branch

No. 139, Urban Office Kitahama, 3F, T·M·B Doshomachi Bldg., 2-1-10 Doshomachi, Chuo-ku, Osaka City, Osaka

Office of Admissions, Fukuoka Branch

No. 123, Urban Net Hakata Bldg., 4F 2-5-1 Hakata-eki Higashi, Hakata-ku, Fukuoka City, Fukuoka

Kiteminsai Lab

2F Hiroshima JP Building, 2-62 Matsubara-cho, Minami-ku, Hiroshima City



Attached Schools

The basic principle and role of the attached schools of Hiroshima University is to support the sound growth of people both within and outside of those schools. Its predecessors include Hiroshima Higher Normal School and Hiroshima Normal School. They provide kindergarten, elementary, middle school, and high school students with opportunities to learn a little about university education, aiming to help children develop into adults who can fulfill diverse roles. Those schools also serve as places for teaching practice where university students can become high-quality teachers.

Concluded an inter-university agreement with Purdue University (U.S.A.) (May 2023)

Midori Area (Hiroshima City)



Hiroshima University **Elementary School**

Higashi Hiroshima

Area

Hiroshima University High School

Mihara Area (Mihara City)



Kindergarten, Higashi-Hiroshima

Hiroshima University





Shinonome Area (Hiroshima City)



Hiroshima University Elementary School, Shinonome



Hiroshima University Junior High School, Shinonome

Fukuyama Area (Fukuvama Citv)

Concluded a Mega-Scale Academic

Exchange Pact (100 students per year) with National Central University (Taiwan) (January 2024)



Hiroshima University High School, Fukuyama

Hiroshima University Hiroshima University Hiroshima University Kindergarten, Mihara Elementary School, Mihara Junior High School, Mihara



WHAT UNIVERSITY EDUCATION CAN DO FOR THE FUTURE OF MEDICINE

FEATURE: SPECIAL TALK

Chief Executive, Pharmaceuticals and Medical Devices Agency (PMDA)

Dr. FUJIWARA Yasuhiro

President, Hiroshima University Dr. OCHI Mitsuo

The Pharmaceuticals and Medical Devices Agency (PMDA) is committed to ensuring a stable and prompt supply of pharmaceuticals and medical devices of the safest and most effective quality possible to healthcare professionals, thereby contributing to improving medical standards. Dr. Fujiwara, PMDA's Chief Executive, is a physician and a graduate of Hiroshima University who has dedicated his medical career to research and practice in medical oncology for many years at the National Cancer Center. He sat down for a Special Talk with Hiroshima University's President Ochi, another physician. The two discussed their student days, the problems facing Japan's medical community as viewed from PMDA, and various other topics.

Childhood – A bully and a painter

Ochi: I've been looking forward to this talk with you, Dr. Fujiwara, to hear you share with us some insights from the standpoint of the PMDA Chief Executive. First of all, let us begin with your childhood. What were you like as a young child?

Fujiwara: I was not a very exemplary child. In elementary school, I was a typical bossy and mischievous boy, a bit of a bully. So much so that the homeroom teacher told the other kids not to hang out with me. I wasn't attending after-school tuition and wasn't very serious about schoolwork. But I began learning oil painting in my childhood and once completed a relatively big picture, over one and a half meters by one meter or so. I was also crazy about football in elementary school.

Ochi: You covered quite a wide range, from football to oil painting! I gather you had a relatively unconstrained childhood.

Fujiwara: That's true. I was quite carefree. I even decided to go to Hiroshima Gakuin Junior and Senior High School simply because they had cool uniforms.

Ochi: What school subjects interested you the most in secondary school?

Fujiwara: I liked Geography, Geology, and Chemistry. In senior high school, I took a liking to Japanese and Chinese Classics, too. Ochi: What about Physics? Your grandfather and your father were both professors of Physics at Hiroshima University, right? And, did you continue football in university?

Fujiwara: No, unfortunately, I didn't like Physics. I wasn't great at Math, either. As for my club activity at HU, I initially joined the football club, but some older students asked me to join the soft tennis club because they didn't have enough members. So I switched clubs.

National victory in tennis, at the risk of failing the State Medical Licensing Exam

Ochi: I thought about joining the tennis club myself when I entered HU but, just like you, I ended up joining the soft tennis club at the invitation of older students. You chose the School of Medicine, while your grandfather



As a bossy boy (age six)



Dr. Fujiwara (right, back row) with his soft tennis club teammates; the team won the Western Japan Medical Students' General Athletic Meet.

and father were professors at the School of Science. Why did you choose Medicine? **Fujiwara:** My father and his father were both

what you would consider as typical scholars, and they appeared like oddballs to me. On my maternal side, they were all physicians. My maternal grandfather was a professor in Internal Medicine at Okayama University Medical School. I compared the two sides, and I identified more with the maternal side, and so I chose Medicine.

Ochi: Did you have any concrete ideas and wishes about your future specialization?

Fujiwara: At that time, no. As a college student, I was totally into soft tennis. The best memory from those days was winning in tennis. At the Western Japan Medical Students' General Athletic Meet, which was held in Kumamoto, we were in the team finals against Kumamoto University, and it remained a draw until the end. Then, our doubles pair had a decisive win. I was over the moon.

Ochi: That must have been an unforgettable event. Now, how did your preparation for the State Medical Licensing Exam go? I think I read somewhere that you didn't have a very serious attitude toward your medical training. Fujiwara: I was very close to failure. In my sixth year, my team won the championships at the All-Japan Medical Students' General Athletic Meet in Sapporo. After that, my teammates and I traveled around Hokkaido. When I returned to Hiroshima, I found all my classmates studying for the State Exam as if their life depended on it. I panicked and said to myself, "I screwed up!" But in those days, you could take the State Exam twice a year. So I got into studying from that point and somehow managed to pass.

Interested in Pathology and experiencing the joy of clinical practice

Ochi: By the time you took the State Exam, you had already decided on your specialization?

Fujiwara: Yes. From the time I was allowed to take part in carcinogenesis experiments at the First Department of Pathology as a student, I thought I wanted to be a pathologist, accurately identifying the causes of diseases. In those days, there was a Hiroshima-trained physician who was a section chief within the Pathology Department at the National Cancer Center Research Institute. So I contacted him, and he agreed to take me in for about a month, almost like an intern. The Head of the Pathology Department at the National Cancer Center at that time had just returned from the United States. I was a big admirer of this doctor, and this was another reason I wanted to go into Pathology. I told him that I wanted to work at the National Cancer Center as a pathologist upon graduation, but he advised me to first work on my clinical skills so that I'd be able to find part-time work in clinical practice because it would be impossible for a young physician to make a living as a pathologist. So I asked Prof. Nishimoto of HU's Internal Medicine II, which I joined after graduation, to introduce me to Kure Kyosai Hospital, thinking that working in a designated emergency hospital would provide me with lots of useful experience. After two years of working there, I moved to Pulmonary Medicine. I experienced the joy of working as a clinician there.

Ochi: I understand that even after you became a resident at the National Cancer Center Hospital in 1986, you continued working in Pulmonary Medicine until around 2002. After that, the Director requested you to focus on medical oncology, especially breast cancer.

Fujiwara: That's correct, and that paved the way to my medical career prior to my current post.

Ochi: I hear you spent a lot of time training in the United States as well. When was that?

Fujiwara: The first time was when I had worked at Hiroshima University for about five years as an assistant professor, after working at the National Cancer Center for six years. I answered an open call from the Japan Society for the Promotion Science and obtained a "Gakushin" scholarship. I went to study at the University of Maryland for about a year. When I was at the General Medicine Division of Hiroshima University Hospital, in the mornings, I saw patients who could not be admitted by specialized departments. In the afternoons, I and the assistants handled the initial consultations of primary or secondary emergency walk-in patients, assigning them to the appropriate departments, often using our network of junior and senior colleagues from university days. In the evenings, I had inpatient consultations and conferences of my unit, and from the late evening to the morning, I worked on my research and instructed graduate students in my charge. The General Medicine Division was a special place with top-notch personnel with a similar outlook and aspiration. I really enjoyed working there.



At the University of Maryland Cancer Center, where he worked as a staff member of the Advanced Treatment Division

Ochi: You were born in the United States, if I'm not mistaken. So you've never experienced any difficulty with English? Fujiwara: I was born in the United States, but we left when I was only a year old or so. If I didn't have much difficulty with English, that's because my English teachers at Hiroshima Gakuin, who were native English speakers, taught us well, building a solid base, especially vocabulary and pronunciation.

From a researcher to a doctor specializing in medical oncology

Ochi: Did you get into Clinical Pharmacology after returning from the United States? Fujiwara: Yes. In those days, a lot of attention was focused on pharmacokinetics and pharmacodynamics. For asthma treatment, the best treatment was ensured based on the concentration of Neophyllin in the blood, and we were discussing the possibility of adopting a similar approach to anticancer drugs. The ability to handle intravenous drips largely varies from one cancer patient to another, and I was very interested in finding out how such differences affect efficacy and side effects. I wanted to delve deeper into this research area during my study abroad in the U.S.

Ochi: And that led you to go into Clinical Pharmacology. You were active in various research areas, but what would you consider as your primary research subject?

Fujiwara: I must say it's definitely the mechanism of anticancer drug resistance. On this subject, I instructed many young researchers and wrote many papers, some of which were published in relatively high impact factor English-language journals. But I was never published in Nature or Science. That's why I gave up being a researcher.

Ochi: I see. It seems quite regrettable, though. For five consecutive years, in the Chugoku-Shikoku region, Hiroshima University's School of Medicine has had the highest numbers of papers that are written in English and are "top 10" papers, that is, papers ranked among the top 10% in their respective fields in terms of the number of times they have been cited. But it was still hard to get your papers published in some prestigious journals like Nature. How did your career pan out after that?

Fujiwara: I decided to become a specialist in Phase I treatment at the National Cancer Center Hospital, for chemotherapy for lung cancer, in particular. At the National Cancer Center Hospital, you can do research in a relatively favorable environment and also engage in human resource development. I was in charge of the education and training of young doctors who had gathered from all over the country. So today I know many doctors who are active across Japan. I know some in Hiroshima and Shimane, too.

Seeking professional assistance following a sudden switch to a managerial post

Ochi: After that, you served as a chief physician and then the head of the Clinical Trial Department at the National Cancer Center Hospital. You were also the Deputy Director of the Hospital twice.

Fujiwara: That's right. The first time I served as Deputy Director, it was for two years from 2010, and I was in charge of hospital management first and then the overall operation of the Cancer Center. Around 2017, I was appointed Deputy Director once again, and I was put in charge of research because there was a need for know-how to get activities off the ground after applying and obtaining designation as a clinical research core hospital. **Ochi:** You had to oversee hospital management. It was a huge transformation for a researcher/physician to become a manager. Didn't you feel a little lost or uneasy in a com-

pletely different position of responsibility? **Fujiwara:** I certainly did. On top of that, I was in charge of the hospital's management exactly when it was undergoing status transition from a national organization to an independent corporation, and it was getting into serious debt. The management team of a dozen or so people was entirely replaced by a team of only three, including myself. I had no choice but focus all my energy on running the hospital.



Dr. FUJIWARA Yasuhiro

Born in the State of Illinois, USA, in 1960, Dr. Fujiwara graduated from the School of Medicine, Hiroshima University in 1984. In 1989, he joined the Division of Experimental Therapeutics of the National Cancer Center Research Institute as a researcher. He later became an assistant professor at Hiroshima University Hospital's General Medicine Division. During his years at the hospital, Dr. Fujiwara furthered his research in the areas of clinical pharmacology and medical oncology at the University of Chicago Medical Center, the Johns Hopkins Oncology Center, and the University of Maryland Cancer Center. After his return to Japan, he joined the Pharmaceuticals and Medical Devices Evaluation Center of the National Institute of Health Sciences (predecessor of the Pharmaceuticals and Medical Devices Agency). In April 2002, he moved to the National Cancer Center Hospital, where he assumed the post of Deputy Director in 2010. In 2011, he doubled as the Deputy Director of the Cabinet Secretariat Office for Promotion of Healthcare Innovation. In 2019, he became Chief Executive of PMDA. Since 2020, he has been a member of the Science Council of Japan (25th and 26th).

Ochi: How did you overcome such a drastic situation?

Fujiwara: I was not a manager by training, so I sought advice from an acquaintance who worked at McKinsey & Company (a major American management consulting firm), who provided assistance and guidance in operational analysis and profit generation. Later, when we decided to launch a clinical research project, we asked the same person, who was now with Boston Consulting Group, to advise us because we wanted to run an organization that can generate profit from its research. For about six months, a team of several consultants analyzed the project and its management and shared with us cases of some well-known American hospitals. It helped us enormously.

Ochi: I see. You learned directly from professionals. It is indeed important not to hesitate to seek professionals' help when you have to explore an unknown territory.

Japanese not attractive to overseas pharma/medical businesses?

Ochi: I think teamwork is essential for any organization to function to its full potential. Are there any things that you take special care of on a daily basis to nurture teamwork?



Dr. OCHI Mitsuo

Born in 1952 in Ehime Prefecture, Dr. Ochi graduated from the School of Medicine, Hiroshima University, in 1977. In 1995, he was named Professor at Shimane College of Medicine (the present-day School of Medicine of Shimane University). In 2002, he assumed the post of Professor at Hiroshima University Graduate School of Biomedical and Health Sciences (Section of Orthopedic Surgery). After serving as the Director of Hiroshima University Hospital for several years, he has been President of Hiroshima University since 2015. Dr. Ochi's medical specialization is orthopedic surgery with a focus on knee joints and sports medicine. The regenerative treatment of cartilage that he developed is the first medical care of its kind that has become entitled to public health insurance coverage in Japan. In 2015, Dr. Ochi was awarded the Order of Culture, Medal with Purple Ribbon. His major committee appointments include the Special Committee on Comprehensive Policy of the Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) (member, 2019-2021 and 2021-2023), the Science Council of Japan (member, 2017-2022; collaborating member, 2011-2017 and 2022-), and the Central Council for Education of MEXT (member).

Fujiwara: Perhaps it's the idea that "Friends who have shared the same pot of rice will look after each other for life." If somebody I've been through thick and thin with is struggling, I make sure to lend a helping hand and try to find a way out together. I think this idea is influenced by my maternal grandfather's motto, "Kei ten, ai jin (Revere heaven and love people)."

Ochi: Offering sincere support is important. You became the PMDA Chief Executive in 2019. How do you find Japan's medicine and medical community today viewed from your position?

Fujiwara: Japan has an excellent universal health insurance system that allows access to high-quality medical care anywhere. But recently, we are facing an extremely serious problem of so-called "drug loss," that is, new drugs are not as readily developed and imported into Japan as before.

Ochi: Is that because drug prices are lower in Japan?



In the PMDA Chief Executive's Office, surrounded by piles of documents

Fujiwara: That's one reason, but mostly it's because an increasing number of newly founded foreign companies don't find development in Japan attractive. That's for such reasons as having to communicate in Japanese and many Japanese medical institutions becoming less and less research-oriented.

Ochi: I have also noticed that tendency. Japanese medical institutions love to spend a lot of money on large-scale equipment and innovative research projects, but I feel that they don't allocate their funds generously to younger researchers. How do you think the Japanese medical community should establish a research system that is attractive to overseas companies?

Fujiwara: We need doctors who are well-versed in the process of drug development, from clinical trials to the marketing of actual products. In 1996, when I was in the US, the American Society of Clinical Oncology and the American Association for Cancer Research commenced a joint organization of workshops on clinical trial methodology for young physicians. For each workshop, about 100 participants chosen from all over the country gather together to intensively learn about the commercialization of drugs. The workshops are still held today. I don't know of any such initiatives in Japan. It would be very difficult to do something similar in Japan because there are very few people who can serve as trainees. Speaking of commercialization, Dr. Ochi, you have set an example with the new treatment method you developed.

Ochi: I developed a regenerative medicine treatment that involves taking out a small healthy part of a patient's knee cartilage, culturing it three-dimensionally, and transplanting it onto the damaged part of the patient's knee cartilage. In the process of developing this treatment, the cartilage culture technology was transferred to an Aichi-based venture company, Japan Tissue Engineering Co., Ltd. The treatment has since helped numerous athletes as a definitive repair for knee cartilage damage often caused by sports injuries. Moreover, in April 2013, the surgery using this technique became reimbursable by public health insurance. Our research serves patients and has also given birth to a new business using regenerative medicine.

Fujiwara: Your case is extremely rare, and this kind of possibility is not made known to medical students today.

Reform in Japan's medicine starting from medical school

Ochi: To turn around the situation in Japan, how about having organizations like PMDA launch workshops like those in the U.S., formalizing them into a certification program? Fujiwara: I think education is the key. In the US, medical schools provide thorough instruction in basic research, translational research (research aimed at translating basic research results into practically applicable results), and the subsequent procedures of commercialization. They even teach the regulatory aspect, what the FDA (Food and Drug Administration) does. In Japan, on the other hand, clinical trial methodology and other matters relating to regulatory issues are not covered at all.

Ochi: Are you taking any action in your capacity as PMDA Chief Executive?

Fujiwara: Yes, of course. We have been appealing to MEXT for the inclusion of the drug commercialization process in the medical school curriculum. We've also been speaking out about the importance of doing this, but it's been a real challenge. To change the current situation, action would be necessary in all aspects, including financial review and overall institutional restructuring.

Ochi: I hope you will continue working on it. Now, let us look back on our college days a little. What did you enjoy the most in college? What are the courses and programs that turned out to be particularly useful for your professional life later?

Fujiwara: I enjoyed the whole range of experiments using rabbits and mice the most, rather than lectures. I was able to totally immerse myself in what I enjoyed doing. I believe many such experiences led me to go into Pathology later.

Ochi: At Hiroshima University, we are working on reform measures that would lead to secondary school environments where students can freely pursue their interests, rather than simply focusing on preparation for college entrance exams. Such measures would include an admission system that evaluates candidates based on individual activities, and not just by one-off exam results.

Fujiwara: Because people usually excel in what they love doing.

Ochi: Before closing our talk, would you like to share with us what you expect from Hiroshima University in the future?

Fujiwara: I would love to see HU offer an undergraduate or postgraduate course that teaches the commercialization process of pharmaceuticals and medical devices. Today, most universities are halfway there. They excel in basic research, but don't teach enough about how to apply that knowledge to transform medical care for people. I want Hiroshima University to be one capable of such equipping.

Ochi: To do so on our own, we must secure exceptional faculty members.

Fujiwara: One way to do that is forming partnerships with overseas universities. At present, the university that's leading the world in this regard is probably Oxford. Harvard also has a division in charge of conducting international joint clinical trials. I think you could make the changes you desire if Hiroshima University formed partnerships with such universities.

Ochi: We'd love that, building new frameworks, with your cooperation, perhaps. Dr. Fujiwara, thank you very much for your time today.



Associate Professor Graduate School of Humanities and Social Sciences School of Law

CHOKYU Asuka

Research interests

International political economy

y recent research focuses on Japan's involvement in negotiating free trade agreements, such as the Trans-Pacific Partnership (TPP) and the Regional Comprehensive Economic Partnership (RCEP). Many of you might have heard at least these names in media reports, without knowing much about their contents or the intricacies of the negotiation process. However, these agreements impact our daily lives in many areas. For instance, if you go shopping at supermarkets today, you are likely to find many products imported from South America or Southeast Asia. This is a direct result of the free trade agreements that Japan has signed with its partners over the years.

When I started my research, Japan had not yet been actively participating in these kinds of free trade agreements. At that time, my focus was on trade negotiations between Japan and its largest trading partner and frequent source of trade disputes, namely the United States. Today, the U.S.-Japan relationship is so stable both politically and economically that it may be hard to imagine that there was a time when tensions between the two countries escalated to the point where rumors of an impending war were taken seriously. Don't you think that this situation bears a striking resemblance to something today? Yes, the current U.S.-China relationship. While the political and security dynamics are different, both cases share a schema of the U.S. grappling with a large trade deficit, demanding improvements, and escalat-



In a seminar-style class, the students read texts on international political economy and discuss a broad range of current political and economic issues.

From trade disputes to free trade agreements

ing trade disputes. Because of this, when I discuss the current U.S.-China trade conflict with Chinese students, I emphasize the importance of sustained and close diplomatic negotiations, drawing on how Japan and the U.S. resolved their trade disputes through persistent diplomacy.

My research on trade negotiations begins with analyzing previous studies, gathering information primarily from newspapers, magazines, and government publications, and conducting interviews with negotiation officials. When the United States was Japan's main negotiating partner, collecting information was relatively straightforward. However, with the marked expansion of Japan's trade partners in more recent years, including some countries with limited information sources, gathering data has become much more challenging. Moving forward, I believe it will be essential to establish a broader network of contacts and tap into more diverse information sources. International political economy, the field I specialize in, covers a wide range of topics. While my research focuses mainly on Japan's trade negotiations, as I have just mentioned, the field also encompasses subjects like

finance, development, and the environment. In my courses at HU, I aim to equip students with a broad knowledge base and the tools to navigate and interpret the complexities of today's global society. I strive to help students form their own perspectives and opinions on the constantly evolving international landscape.



In Washington D.C., participating in a research project on Japan-U.S. relations, which allowed her to talk directly with American researchers and policy makers

At the front line of research at Hiroshima University!

"Seeing" materials with synchrotron radiation

HU has launched an advanced integrated research project to create next-generation technologies for practical application in society!

Part of the Program for Forming Japan's Peak Research Universities (J-PEAKS) of the Japan Society for the Promotion of Science (under MEXT)

The Research Institute for Synchrotron Radiation Science at HU is a spectroscopic experimental facility using ultraviolet (UV) synchrotron radiation, the only one of its kind among the Japanese national universities and very unique worldwide. Together with Kobe University and other Japanese and international universities and preserve institutes. HU is conducting an advanced integrated research project at the interaction of the second s

research institutes, HU is conducting an advanced integrated research project at the intersection of semiconductors, supermaterials, and life sciences, focusing on technologies that visualize the elements, structures, and properties of materials with the use of synchrotron radiation.





Synchrotron radiation (electromagnetic waves emitted by electrons accelerated to near the speed of light) contains light of a broad spectrum, enabling detailed research into the elements, structures, and properties of materials. University of World-wide Repute and Splendor for Years into the Future **>>> Researchers Leading the World**



Professor Graduate School of Advanced Science and Engineering School of Science

NONAKA Chiho

Research interests Nuclear physics, hadron physics



Exploring the beginning of the universe through quarks²²⁰

ave you ever heard of the term "quarks"? At present, quarks are believed to be the smallest fundamental building blocks of matter. The particles responsible for the interaction between quarks, called "gluons," are normally confined within protons and neutrons in our everyday world. However, under extreme conditions, such as incredibly high temperatures and densities, this confinement can break down, allowing quarks and gluons to move freely, changing into a new state. This state is referred to as "quark-gluon plasma" (QGP). QGP is not a theoretical concept, but it is in fact thought to have existed in reality, just one-hundred thousandth seconds after the Big Bang. More surprisingly, scientists have succeeded in artificially creating QGP on Earth!

How have they succeeded? It was through high-energy heavy-ion collision experiments. Since the 1970s, a series of such experiments has been conducted, and in 2000, the Relativistic Heavy Ion Collider (RHIC) began operating at Brookhaven National Laboratory in the United Sates. In 2005, it achieved the breakthrough of successfully producing QGP. You might find it strange that I say "successfully producing QGP" rather than "discovering" it. This is because QGP cannot be observed directly. As mentioned above, quarks and gluons are typically confined within protons and neutrons. This means that all we can observe in experiments are photons and hadrons such as protons. This is where theoretical interpretation becomes critical. That is to say, scientists must develop theories that incorporate the production of QGP and test whether these theories can explain the experimental results. At the time, many theories were proposed, and the one that appeared particularly promising was what is known as the "relativistic hydrodynamic model." This model has been particularly effective in interpreting a wide range of experimental data and has now become the standard model for describing the dynamics

of high-energy heavy-ion collisions. My research team had already been analyzing data using the relativistic hydrodynamic model before RHIC began operations. At that time, only a small number of research groups worldwide were seriously applying such a bold model, which describes the particles produced in a collision as a fluid. However, after RHIC's success in creating QGP, this approach quickly gained attention and recognition. In scientific research, you don't know what turns out to be successful or what attracts attention until the very moment it happens, and this is what is really challenging and fun at the same time for researchers. I hope to continue doing my best in my research, keeping in mind that all types of knowledge must be subjected to experiments.



(Background photo) Niels Bohr Institute, where Prof. Nonaka stayed in November 2023. The institute is named after Niels Bohr, the "father" of modern physics.





Assistant Professor Graduate School of Biomedical and Health Sciences School of Dentistry

IWAMOTO Yuko

Research interests

Pediatric dentistry, regional dental healthcare

o you remember the first time you brushed your teeth on your own? I suppose many people don't because toothbrushing is usually well-established already in children's daily routines when they first begin to understand the world around them.

My area of specialization is pediatric dentistry, and my research focuses on how to spread effective oral health education in countries and regions where such instruction is not well established. I first became interested in this theme during my residency, after completing my undergraduate studies, when I participated in a dental aid mission to Cambodia. Due to its historical background, the healthcare and educational systems in Cambodia have not yet been fully rebuilt, and dental hygiene habits, such as brushing teeth, are not widespread. For example, reports indicate that 44% of six-year-olds in Cambodia have never brushed their teeth. Consequently, as the country's economy began growing, with increased sugar consumption, more and more children started suffering from tooth decay, and this trend seemed to accelerate. To address this issue, the dental aid mission was launched, which involved dispatching dentists from Japan and providing dental care and education.



11

Instruction in dental care mainly by Cambodian dental students; they continued the activity during COVID-19 pandem-ic, which prevented travel from Japan

rof. Iwamoto's hand-made panel theater enables children to learn about how tooth decay occurs and how to choose teeth-friendly snacks.

> A scene from an oral health education workshop aimed at students training to become primary school teachers. By enabling them to practice in the primary schools where they are assigned, the program is expected to have a ripple effect across the entire state.



Daily oral hygiene habits and dental care for all children

I have participated in the mission several times and have gradually taken on a leading role in its operation. To make it more effective, I have begun providing support from a research perspective as well. At first, our efforts mainly involved providing treatment and education directly to children, but these were only temporary measures. To address the root of the problem, we began, in cooperation with local governments and universities, providing primary school teachers with tools and training in oral health education. We keep track of the program's effectiveness through statistical data from the results of school children's dental checkups. Initially, our educational efforts did not go smoothly because we didn't fully understand Cambodia's cultural and social background. For example, we used a picture-story show (kamishibai) featuring a hippopotamus to teach children about oral health, but many of them didn't know what it was because they had never seen this animal in media such as TV and books or in the zoo, all of which are not easily accessible to Cambodian children anyway. With guidance from local teachers, we made improvements and were able to better connect with the children. This experience taught us the importance of adapting our teaching methods to the local culture, rather than simply applying Japanese techniques. This was a vital lesson for us because we are aiming for lasting change, not just one-off efforts. Our activities have also involved working with

local dental professionals and students, sharing knowledge and expertise on oral health education. By gradually shifting the responsibility to local leaders, we hope to empower them to train even more educators, ultimately contributing to the development of a self-sustaining dental care and oral health education system in



Dental checkups are often conducted outdoors or in naturally lit hallways because some school buildings have no indoor lighting, which can be challenging with the exterior temperature reaching 35 to 40°C sometimes.

Cambodia. We are also hoping that by proceeding this way these efforts can spread on a broader scale, involving even neighboring countries.

Today, even within Japan, there are regional disparities in access to pediatric dental care. To address this issue, we have started a research project to develop a system that uses artificial intelligence (AI) for diagnosing and screening pediatric dental conditions. This system uses intraoral photos, which can be taken with a smartphone, and X-ray images, which any dental clinic can capture. By creating a low-cost system that young ones can access, regardless of where they live, we hope to support the oral health and growth of even more children, both in Japan and around the world.



Assistant Professor Iwamoto along with Cambodian school teachers, pupils, and parents. The pictures held by the children in the front row are from the picture-story show (kamishibai) set developed by the dental aid mission members for the school's oral health education.

Network-type Research Center -

Network for Education and Research on Peace and Sustainability (NERPS)

The Network for Education and Research on Peace and Sustainability (NERPS) is an international network of educators, researchers, and practitioners collaborating towards the advancement of peaceful and sustainable societies amidst global challenges. The main objectives of the Network are as follows:

1. To identify research priorities and emerging issues related to peace and sustainable development;

To co-design and co-implement innovative inter- and trans-disciplinary education and research projects on "Peace and Sustainability" in collaboration with a wide range of stakeholders;
 To collaborate with a wide range of local and international stakeholders, so that Hiroshima University, as a

comprehensive research university, can contribute to the Sustainable Development Goals (SDGs) and to the creation of peaceful and sustainable societies in the face of increasing global challenges; 4.To establish a one-stop-center for collection and dissemination of information related to university-based

research and outreach activities related to the SDGs; and

5.To coordinate university-based research activities related to the SDGs.







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Associate Professor Graduate School of Integrated Sciences for Life School of Applied Biological Science

TANAKA Wakana Research interests

Plant development, plant breeding



hat special efforts can you think of in order to increase crop yields? One possible approach is developing crops that are resistant to diseases and pests. Many researchers all over the world are already working on this solution. Recently, with the growing frequency of extreme meteorological phenomena and issues related to climate change, there has been a surge of research focused on breeding crops that can withstand environmental stress. A less well-known method for improving crop yields involves modifying the morphological trait of crops themselves.

grows inside

One of the most significant events in agricultural history related to this was the Green Revolution, which took place between the 1940s and 1960s. The Green Revolution was the event wherein the modification of the morphological traits of crops most significantly contributed to boosting yields. Before the Green Revolution, traditional wheat and rice varieties would grow taller when fertilized, making them more prone to getting toppled by strong winds and rain. The semi-dwarf varieties — crops with shorter stalks introduced during the Green Revolution showed improved resistance to being blown down by storms (a trait known as "lodging resistance"), leading to dramatic increases in harvests. This showed that modifying the morphological trait of crops is highly effective in improving their yields. However, such

modifications would first require a good understanding of how crops develop their morphological traits.

My research team is working to unravel how rice plants develop their morphological traits by studying gene functions. Our research is characterized by the focus placed on traits such as flowers and tillers (rice plant branches) that directly affect rice yield. Recently, we discovered a gene that is responsible for producing ovules, which are critical to rice formation. Ovules are located inside the pistil and are not visible from the outside of the flower. However, once pollination occurs, the ovules develop into seeds (rice grains), making them a vital part of the plant's reproductive system. Until recently, little was known about the genes involved in ovule formation, with almost no research conducted in this regard. We went ahead and analyzed a mutant rice strain called tab1, in which the function of the TAB1 gene is lost. We discovered that the plants of this strain completely lacked ovules inside their pistils, thus failing to produce seeds. Detailed morphological and molecular analysis allowed us to determine that the TAB1 gene plays a crucial role in the proper formation of ovules, which ultimately leads to the production of seeds. In short, without the TAB1 gene, rice plants cannot yield rice grains.

Today, more than 60 years after the Green Revolution, the world is facing an even more severe food crisis due to a rapidly growing global population. This makes research aimed at increasing crop yields more important than ever. Furthermore, developing crops that can tolerate the effects of climate change has become an urgent challenge. So I intend to continue my research on the genes that control rice plant development, and I hope that our findings will lead to developing new breeding technologies that will contribute to the stable supply and increased production of rice in the future.

At Hiroshima University, there are many other researchers who pursue research in diverse segments of plant science, and they can work together at the Plant Research Center to Create a Green Revolution from Hiroshima University. It provides an incredible environment in which researchers can pursue their research, including joint projects beyond their usual team affiliation, in an intellectually stimulating camaraderie. I hope to further my research there to contribute to society.



Transplanting rice plants with students from the lab at HU's agricultural field; rice plants are individually placed in buckets for cultivation.

Understanding rice plant development better to contribute to stable rice supply

(Background photo)

Rice plants growing in a paddy field; studies that cannot be conducted in laboratories, such as large-scale morphological and harvesting surveys are conducted in actual paddy fields.

Scholarship system for female graduate students in science and engineering fields

Hiroshima University Fellowship for Female Graduate Students in Science and Technology



Female doctoral students (D1 to D3) who are motivated to play an active role in science and technology fields are selected as STEM Female Research Fellows and receive stipends (equivalent to living expenses) and research funding. With the fellowship, we provide an environment where students can concentrate on their research. Furthermore, we also provide support to master's degree students who have the desire to advance to the doctoral program, and if students receiving support advance to the doctoral program at our university, they are guaranteed STEM Female Research Fellow positions.



Professor (Special Recognition) Graduate School of Humanities and Social Sciences School of Integrated Arts and Sciences

SAWAI Tsutomu

Research interests

Ethics, applied ethics (bioethics)

t present, research and development are advancing at a dramatic pace in the fields of science, medicine, and engineering. The outcomes of these efforts are expected to benefit society in various ways. On the other hand, deep-rooted concerns and anxieties have arisen about the potential misuse of research results. The common issues across all the fields are how to promote research and development and how to return the outcomes to society. I address these issues through my expertise in ethics.

In September 2012, when I was a graduate student at Kyoto University, I went to study applied ethics at Oxford University in the United Kingdom. Shortly thereafter, I received the exciting news that Dr. Shinya Yamanaka of Kyoto University had won the Nobel Prize in Physiology or Medicine. He was recognized

Guiding the co-creation of a better society through ethics expertise

with the prize for his discovery that mature cells, such as skin cells, can be reprogrammed to become cells that can make all types of cells in the body (formally known as "induced pluripotent stem cells" or "iPS cells") simply by inserting a few specific genes into the cells. At a similar time, another group announced that they had successfully created eggs from mouse iPS cells and produced offspring from these eggs. Based on these results, Dr. Yamanaka also recognized that iPS cell research could raise ethical issues, depending on how it was used. In this situation, I began researching the ethical issues concerning iPS cell research, partly due to the recommendation of my mentor in the UK at that time. After returning to Japan, I took up a position as an ethics expert at the Center for iPS Cell Research and Application, Kyoto University, the active hub for research and application of iPS cells. Until 2022, when I moved to Hiroshima University, I was engaged in the ethical issues raised by cutting-edge life science research, such as iPS cells, at Kyoto University.

The field I work in is also known as "Ethical, Legal, and Social Issues (ELSI)" or "Responsible Research and Innovation (RRI)." ELSI addresses issues that may arise during the conducting of research or the utilization of its results. RRI, on the other hand, is a process of promoting research and development by working backwards from a vision of the kind of

future we want to live

in and the values we

wish to uphold in that

society. RRI includes

elements of ELSI. In

recent years, all coun-

tries, including Japan,

have recognized the

importance of ELSI

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In May 2024, a research group at Kyoto University announced that they had developed a method for mass-producing the precursors of eggs, called oogonia, from human iPS cells. The initial method (see figure above) had the limitation of producing only a small number of oogonia, as I discussed it in my book *How Far Can We Manipulate Life? Applied Ethics Lecture*, published in 2021. They have now overcome this challenge. As you can see, life science technology continues to evolve daily. In these circumstances, bioethics is increasingly required to play a greater role in connecting academia and society.



Engaging in dialogue with a diverse group of citizens at "Research Chit-Chat #8 (Special Edition): Creating and Thinking about the Brain—The Future of Brain Organoid Research."



Engaging in dialogue with participants at "Creating the Brain!? Cutting-Edge Neuroscience," a discussion event for high school students held on September 23, 2023.

and RRI and have focused their efforts on such research. In addition to ELSI research, which involves thoroughly identifying and discussing issues caused by specific technologies, I also aim to "co-create the future (create a better society)" with diverse stakeholders (citizens) based on the RRI approach.

In the field of ELSI/RRI, we need the ability to understand the state-of-the-art research being developed by scientists, medical doctors, and engineers, the ability to work internationally and interdisciplinarity with such a diversity of researchers across arts and sciences and boundaries, and the ability to connect researchers with society. It is not easy to co-create the future in a way involving a diverse range of citizens. In fact, despite various initiatives undertaken worldwide, there are still no clear cases of success. At Hiroshima University, I engage in research and practice daily while establishing one of the top research environments in Japan in the field of ELSI/RRI. Through these efforts, I hope to contribute to creating a better society, one where people feel, "This is the kind of society I want to live in."

Attached Research Institute

Research Institute for Radiation Biology and Medicine

The Institute conducts comprehensive research projects on the effects of radiation on the human body, ranging from cutting-edge basic research in genomics to advanced clinical deployment of regenerative medicine, etc. While being involved in research and development of medical treatments for A-bomb survivors for over half a century, the Institute is actively engaged, as a research hub in the field of radiation disaster medical science, in joint research projects with researchers and doctors across the country.



Distinctive research facilities

Joint Education and Research Facilities on Campus —

- Research Institute for Semiconductor Engineering
- Research Institute for Higher Education
- Information Media Center
- Natural Science Center for Basic
- Research and Development
 Morito Institute of Global Higher Education
- Monto Institute of Global Higher Educatio
 Health Service Center
- The Center for Peace
- Environmental Research and Management Center
- Hiroshima University Museum
- Hiroshima Astrophysical Science Center
- Institute for Foreign Language Research and Education
- Hiroshima University Archives
 - Institute of Sport
 - HiSIM* Research Center
 Amphibian Research Center
 - Translational Research Center
 - Resilience Research Center

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Photo 1: Capturing water surface images using a balloon for seagrass bed mapping



Photo 2: Indoor experiment in an a quarium for satellite coral reef mapping



Satellite visible (background) and thermal (above) images of Hiroshima City indicating higher ground temperatures along the Ota River and its branches





Professor Graduate School of Advanced Science and Engineering School of Engineering

SAKUNO Yuji

Research interests

Aquatic environment remote sensing

Examining the wellness of oceans and lakes with satellites, drones, and balloons

o you know what the term "remote sensing" stands for? It refers to "non-contact measurement." To put it simply, it involves using cameras on satellites, drones or balloons to capture images of objects on the ground and create maps. My research interests center around applying remote sensing to monitor aquatic environments, especially oceans and lakes. In recent years, with higher water temperatures and water levels due to global warming, issues affecting fishing and daily life are becoming more frequent and serious. In such a situation, remote sensing is expected to play an important role in monitoring the health of water bodies. I first encountered this research subject as a university student, when my professor proposed a project to me. Its objective was to demonstrate a hypothesis about Lake Shinji in Shimane Prefecture, famous for its Shijimi clams, using satellite data. The hypothesis stated that the areas of the lake where the clams live have clearer water than other parts of the lake. It may sound surprising, but it turned out to be true. Shijimi clams filter suspended particles from the water to obtain

nutrients, which means that the water above clam beds tends to be clearer. But how could we measure this "clarity," that is, the absence of murkiness, which actually indicates the distribution of chlorophyll? Some satellites are equipped with ocean color sensors specifically designed to measure chlorophyll. Chlorophyll absorbs blue and red light and reflects only green, and by measuring the amount of light absorbed, satellites can estimate chlorophyll levels. However, the problem with this method was that most ocean color sensors have a resolution of about 1 km. Lake Shinji, which is roughly 20 km long and 5 km wide, with clam beds only about 1 km from the shore, was too small for these sensors to capture clearly. To counter this problem, I devised a method to use higher-resolution satellite images, mainly the French SPOT satellite with a 20-meter spatial resolution, to measure chlorophyll in the lake. I thereby demonstrated that the waters where Shijimi clams live tend to be clearer, on average, than other parts of the lake. This work earned me my doctorate.

Since this project, I have been thoroughly enthralled by remote sensing. Even since

becoming a university professor, I have still been immersing myself in mapping the environments of oceans and lakes using this technology. At present, I am using satellites, drones, and balloons (Photo 1), expanding my research to include mapping coral reefs (Photo 2) and seagrass beds, not just to measure chlorophyll. At the end of each research project, we always need to conduct physical validation from a boat. So my lab regularly engages in marine observation (Photo 3). Fortunately, Hiroshima University provides easy access to research vessels and has numerous labs whose members are willing to collaborate with us. These ideal settings have allowed us to generate many new research projects. This combination of the cutting-edge technology of satellite remote sensing and traditional boat-based fieldwork has earned my research a solid reputation. As a result, courses and research in this field are extremely popular with students. Together with these students passionate about measuring and diagnosing water environments, I am committed to continuing my research and exploring new frontiers.

supporting world-class research

- Center for Brain, Mind and KANSEI Sciences Research
- Hiroshima University Genome Editing Innovation Center
- Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Center
- Education and Research Center for Artificial Intelligence and Data Innovation
- The IDEC Institute
- Academic-Environment Social Governance Science and Technology Research Center
 Town & Gown Institute of Innovation for
- the Future
- Hiroshima University PSI GMP Center
- The Institute for Diversity & Inclusion
- Seto Inland Sea Carbon-neutral Research Center
- Global Campus Institute, Hiroshima University

*HISIM (Hiroshima-University STARC IGFET Model) is a transistor model used in circuit design that has been developed by Hiroshima University in collaboration with the Semiconductor Technology Academic Research Center (STARC).

National Joint Usage Facility

Research Institute for Synchrotron Radiation Science

Synchrotron radiation is generated when an electron traveling at the speed of light is forced to change direction by a magnetic field. Synchrotron radiation is called "dream light" because it is not only powerful but also includes light of various wavelengths. The institute promotes advanced materials science and emerging interdisciplinary fields using synchrotron radiation.



FEATURES OF EDUCATION

Educational systems

acquire a broad culture and specialized knowledge)ER(

education in diverse schools leading students to Hiroshima University offers undergraduate

Bachelor's Degree Programs

- School of **Integrated Arts and Sciences**
- School of Letters
- School of Education
- School of Law
- School of Economics
- School of Science
- School of Medicine
- School of Dentistry School of
- Pharmaceutical Sciences
- School of Engineering School of
- Applied Biological Science
- School of Informatics and Data Science Special Course of
- Special Support Education

HU's original goal-oriented educational system (R)

*HiPROSPECTS (Hiroshima University Program of Specified Education and Study) is a registered trademark of Hiroshima University.

A combination of three programs to match each student's academic interests and intellectual curiosity

In accordance with his/her academic interests, each student can select a desired program from a combination of three programs: "major program" of the school/department in which the student is enrolled; "minor program" in which the student can learn majors of other departments; and "specific program" designed for the student to develop higher abilities and acquire official qualifications.

Each program clarifies targets to reach

In each program, the target levels of knowledge and competency that each student is expected to reach by graduation are clearly indicated, and their degrees of achievement are periodically checked. This approach enables students to make progress steadily toward their final goal.



Major program







https://www.hiroshima-u.ac.jp/prog (Page in Japanese)

TOEIC[®]L&RIP TEST

Measuring English language proficiency by a socially and internationally recognized test

All HU students are required to take this internationally recognized test at least twice, upon admission and in or after their third year (exact timing depending on students' affiliation). The test scores enable the students to objectively evaluate their English language proficiency and also contribute to further improving HU's English language instruction.



Basic Courses in University Education

Developing the ability to engage in intellectual activities at the university

Out of liberal arts education's four major categories (Peace Science Courses, Basic Courses in University Education, Common Subjects, Foundation Courses), students learn how to study at university from the Basic Courses in University Education. In the Introductory Seminar for First-Year Students and the Introduction to University Education, which are compulsory for all students, students acquire the basics of intellectual activities at a university. In the Advanced Seminar, which was newly established as an elective subject from AY 2023, students develop the ability to discover and solve problems on their own.

matching students' motivation

FDIICATION	POSTGRADUAT	througn interdisciplinary and integrated research.
	TE	arch.

and cultivating multiple perspectives

Deepening understanding

in areas of specialization

Master's & Doctoral Programs

- Graduate School of Humanities and Social Sciences
- Graduate School of Advanced Science and Engineering
- Graduate School of Integrated Sciences for Life
- Graduate School of **Biomedical and Health Sciences**
- Graduate School of Innovation and Practice for Smart Society

We have established a research institute that allows students to study across fields of four graduate schools. Studying different research areas broadens one's perspective and leads to deeper research in one's area of specialization.





Graduate School of Innovation and Practice for Smart Society (Opened in April 2023)

Common Graduate Courses

Basic knowledge for active roles in today's society

Common Graduate Courses are offered to equip students with the basic knowledge necessary to play active roles in society by learning about the recent developments of social systems. Furthermore, through these courses, the students are expected to cultivate their broad perspective, interest and awareness concern-ing social issues, thereby elaborating their reflection on how their academic discipline can concretely contribute to society as a science for sustainable development.

Sustainable Development Courses

Through these courses, students are expected to deepen their understanding of the global community's Sustainable Development Goals (SDGs) in order to develop the ability to create sciences for sustainable development and propose solutions to various problems in society.

Career Development and Data Literacy Courses

These courses will lead students to understand recent advances in social systems, acquire the knowledge necessary now and in the future, and develop the ability to concretely tackle the issues facing today's society by using the knowledge and skills needed to solve them.

(Doctoral Program for World-leading WISE Program Innovative & Smart Education)

Tuition Waiver Scholarship (50,000 yen/month)

Training Ph.D. holders who bring about innovation to benefit society

- The Frontier Development Program for Genome Editing
 - (adopted for the MEXT WISE Program in AY 2018) [*57 students]

Two inter-departmental courses to develop human resources capable of fully utilizing genome editing and linking it with industrial creation

Life Science Course (five-year program)
 Medical Course (four-year program)

*Number of registered students

Tuition Waiver Leading Graduate Education Program Scholarship (50,000 yen/month)

Training next-generation leaders for global activities

Phoenix Leader Education Program (Hiroshima Initiative) for Renaissance from Radiation Disaster

(adopted for the MEXT Program for Leading Graduate Schools in AY 2011) [*12 students]

Three transversal courses to train experts in the field of radiation disaster recovery

- Radiation Disaster Medicine Course (four-year program)
- Radioactivity Environmental Protection Course (five-year program)
- Radioactivity Social Recovery Course (five-year program)

TAOYAKA Program for Creating a Flexible, Enduring, Peaceful Society

(adopted for the MEXT Program for Leading Graduate Schools in AY 2013. Student recruitment has been suspended since AY 2023) [*12 students]

Three transversal courses to train future leaders who promote on-site reverse innovation

- Cultural Creation Course (five-year program)
- Technical Creation Course (five-year program)
- Social Implementation Course (five-year program) *Number of registered students

Postgraduate Advancement Project

The following support systems are in place to support doctoral students who are interested in research and who will be important players in creating science, technology, and innovation in Japan in the future.

Program for Developing and Supporting the Next-Generation of Innovative Researchers at Hiroshima University

Supporting **379** doctoral students



Stipends: 190,000 yen/month research funds of 400,000 yen/year

Fellows who achieve outstanding results or performance in the initiatives implemented by HU SPRING will receive the HU-SPRING Award, an additional stipend of 120,000 yen per year.

Project for Developing and Supporting the Next-Generation AI Researchers at Hiroshima University

Starting in AY 2024, we will support **7** doctoral students per year (21 students over three years)



Stipends: 250,000 yen/month 🕀 research funds of 900,000 yen/year Hiroshima University Fellowship for Female Graduate Students in Science and Technology

> Supporting a total of 16 students, 12 in the doctoral program and

4 in the master's program

STEM Female Research Fellow



Fellows who achieve outstanding results or performance in the initiatives implemented by HU SPRING will receive the HU-SPRING Award, an additional stipend of 120,000 yen per year.

(STEM	
	Support amount	

Female Junior Research Fellow Stipends: 90,000 yen/month 🕀 research funds of 240,000 yen/year

The World Is Yo



A total of 845 students were sent to 44 countries and regions *Results before the coronavirus pandemic



I decided to study at UNSW, which has a wide range of undergraduate programs within the department of urban development studies. At UNSW, I actively challenged myself to speak up and take part in class discussions. I had a variety of memorable experiences, such as traveling and participating in events with friends from various countries I met there. The anxiety I felt initially was gradually replaced by a sense of confidence as I proactively took up one new challenge after another. At HU, I'm planning, starting from my third year, to make the most of my learnings in Australia by getting involved in community activities such as food bank operation.

Third-year student, Department of Integrated Global Studies, School of Integrated Arts and Sciences KIMURA Aoi



My six-month study at the University of Nevada, Reno, in the United States was a fulfilling experience. I deepened my understanding of my major while interacting with people from various countries and built strong friendships with other students in the dormitory. I also developed practical skills through group work and specialized experiments with local students. Additionally, I had many enjoyable experiences, such as traveling to LA and other places with friends. Overall, I gained new insights from multiple perspectives. These experiences gave me confidence, helped me become more proactive, and fostered my personal growth as I work toward my future goals.

Fourth year student, Cluster 2 (Electrical, Electronic and Systems Engineering), School of Engineering

MATSUBARA Masahiro

ur Campus

At Hiroshima University, the whole world is your campus. As a hub of international education and research, HU has signed international exchange agreements with education and research institutions across the globe. Hiroshima University attracts many students from all corners of the world and sends many Japanese students abroad.

International exchange agreements

(As of May 1, 2024)

Between universities

413 agreements signed with 369 institutions in 56 countries/regions

Between divisions

423 agreements signed with 378 institutions in 55 countries/regions

Overseas bases (As of May 1, 2024) To North America 22 bases in 14 countries/regions 75 students Canada From North America Bachelor's degree program: Research students/ 9 88 Special auditing students, etc.: Research students/ students 235 Special auditing students, etc.: Undergradua 256 students: 344 To Oceania 230 To Latin America International 9 students students: From Oceania students 1,951 Doctoral program: 13 From Latin America 646 students 36 Postgraduate students 1,607 (including professional degree program students) students Master's program: Australia 726 🛑 Fiji 🔵 Argentina 👘 🔴 Costa Rica 🔵 Jamaica Bolivia 🖲 Cuba Mexico Kiribati 🕒 Brazil Dominican Republic 🕨 Nicaragua New Zealand Chile Ecuador 🛑 Papua New Guinea 🕨 Panama 🔵 Colombia El Salvador Solomon Islands Peru Venezuela From the World to Hiroshima University

A total of 1,951 students from 94 countries and regions are studying at HU (as of November 1, 2023)



The Department of Integrated Global Studies is a wonderful place where Japanese and international students can learn together and gain diverse perspectives. It also has an extensive support system for international students. Moreover, the Higashi Hiroshima Campus is situated in a rich natural environment, which provides a relaxed atmosphere for learning. For me, studying at Hiroshima University has been a deep learning experience, especially with regard to world peace, considering the history of Hiroshima. One of my future goals is to be a bridge between Japan and Indonesia. I now make sure to think about everything from both perspectives.

Third-year student, Department of Integrated Global Studies, School of Integrated Arts and Sciences YUGHIE YUNIOR ALVADIVIA (Indonesia)



I carry out research in astronomy. HU is known for its extremely well-developed and wide-ranging research in astronomy. Initially, upon arriving in Japan, I felt lost and confused, living in a different culture, but I was able to overcome this thanks to the warm support of the laboratory's teachers and friends. This experience made me want to help others, and so I volunteer by helping other international students at the Student Plaza. My days at Hiroshima University have turned into an unforgettable and valuable experience for me.

Each undergraduate and graduate school has its own admissions policy in accordance with its educational objectives and goals. At the undergraduate level, in addition to the general entrance examination, students are selected through various processes that look into candidates' individuality and motivation, including the Hiroshima University Splendor (Hikari Kagayaki) Entrance Examination.

Ideal Student Profile / Hiroshima University Admission Policy (for the bachelor's degree courses)

Hiroshima University looks forward to welcoming students with the following qualities:

- Students with a well-rounded personality wishing to contribute to peace
- Students highly motivated to pursue, create, and develop knowledge
- **B** Students wishing to acquire specialized knowledge and skills so as to contribute to the development of society
- 4 Students wishing to learn about diverse cultures and values so as to play an active role in the local and international communities

To accept individuals who demonstrate these qualities, each faculty or department evaluates and selects candidates in a multifaceted and comprehensive manner in accordance with its diploma and curricular policies. For this process, each faculty or department clearly indicates the competences required of candidates and how they are evaluated, in terms of knowledge and skills; the ability to think, make decisions, and express themselves; and attitude toward learning preferably marked with both independence and willingness to collaborate with others of diverse backgrounds.

Entrance Examinations to Undergraduate Schools Open to high school students, professionals, and senior citizens

The figure on the right side of each entrance examination method shows the average number of students enrolled from AY 2022 to 2024.



Shikoku region

219

students

Students with proven academic ability and rich individuality gather together from all over Japan.

> Kyushu region 482 students

(Including Japanese government-financed international students, and international students delegated by foreign governments)

Others

Total

38 students

2,463 students

•----Kanto region

85

students

Hiroshima University has a well-developed system of support that meets students' needs relating to their pursuit of studies, daily life, career development, and financial situation. Various forms of assistance are available to enable each and every student to have a fruitful student life.

Support for Career Development

Career Design and Job Selection Support Available from the First Year

- Lectures in the introduction to university education, a compulsory course for first-year students Internships
- Career guidance (general education seminar) Career-oriented general education subjects
- Introduction of university-operated support services
- Career consultation and job placement consultation

Support Programs for Students Preparing for Job Searching

Employment search guidance and seminar Distribution of the booklet "Job Searching Handbooks" for students
Career development and job search counseling
Providing information through the "Momiji" student information platform and website

Human Resource Development Support Programs for Young Researchers

- Practical program for career and skill development
- Career consultation and matching support for doctoral students
- Core IT system, HIRAKU-PF (young researchers' portfolio)

Employment Status

(Graduates in AY2023: 2,379 undergraduates, 1,219 postgraduates*) * Students completing master's program

Undergraduate School



Support for Studies and Daily Life

Tutor System

Each student is supervised by several academic faculty members serving as tutors and representing different departments and courses. The tutors provide support for overall student life, including studies and daily problems from entrance to graduation.

Center for Academic Practice and Resources

The student staff (graduate students) at the "Learning Support Counter" assist other students with their education and learning-related questions, problems, and concerns. They provide valuable advice on study skills across various fields of liberal arts education, including mathematics, physics. chemistry, and English. Additionally, events like the "Freshmen Get-together" and "HU Students" Meeting" are organized to foster interaction among new, transfer, and international students.

Peer Support Room

This counseling room for students is operated by students who have received instruction from professional counselors. Students can confide in their peers about problems in their university lives. Student counselors guarantee confidentiality and listen to their counselees attentively and patiently. If necessary, the Peer Support Room can refer counselees to professional institutions on or off campus.

Accessibility Center

The center assists students with disabilities in their pursuit of studies, advises on accessibility, and conducts accessibility leader programs (ALP). In AY 2006, Hiroshima University was the first in Japan to inaugurate an accessibility leader training program. By AY 2023, ALP has produced 4,291 Accessibility Leaders at 27 universities, including HU, four companies, and two government agencies in Japan.

Health Service Center

The Center provides first-aid treatment and consultations by internists and nurses, consultations by psychiatrists, and counseling by clinical psychologists.

postgraduate students and young researchers.

Hiroshima University offers various programs that constitute an integrated

system of support for career development for undergraduate and

Global Career Design Center

Staffed by academic faculty members and advisors who have worked in the divisions of personnel affairs, recruitment, education, and overseas operation of private businesses, the center provides all students (domestic and international) and young researchers with comprehensive support for their career design and employment search in collaboration with HU's undergraduate and graduate schools.



Main Employers

Manufacturing

Information and

communications

99 graduates

342 graduates

(Private sector) Mazda Motor Corporation; Toyota Motor Corporation; Nippon Telegraph and Telephone West Corporation; The Hiroshima Bank, Ltd.; Kyushu Electric Power Co., Inc.; Hitachi, Ltd.; The Chugoku Electric Power Co., Inc.; Panasonic Corporation; NTT Docomo; Kubota Corporation; Mitsubishi Heavy Industries, Ltd.; Nitto Denko Corporation; SoftBank Corp.; TOTO Ltd.; Daikin Industries, Ltd.; Sharp Corporation; Sumitomo Mitsui Trust Bank, Limited; Honda Motor Co., Ltd.; West Japan Railway Company; NEC Solution Innovators, Ltd. (Public sector) Hiroshima Prefecture; Hiroshima City; National Tax Agency Hiroshima Regional Taxation Bureau; Higashihiroshima City; Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries (Academia) Hiroshima Prefectural Board of Education; Hiroshima City Board of Education; Ehime Prefectural Board of Education; Hyogo Prefectural Board of Education; Shimane Prefectural Board of Education

Financial Support

Hiroshima University's original programs

1. For students with academic excellence experiencing financial difficulty in starting or continuing university education

- Hiroshima University Phoenix Scholarship Program
- Hiroshima University Splendor Scholarship Program
- Hiroshima University Future Support HIZUKI Scholarship Program

2. Tuition fee assistance for graduate students with academic excellence

Hiroshima University **Excellent Student Scholarship**

■Japanese governmental programs

(from AY 2020, mainly for undergraduate students of Japanese nationality)

Higher Education Student Support System (Scholarship + Enrollment Fee/Tuition Fee Exemption) * Specific conditions must be met to be program beneficiaries.

COMMUNITY COOPERATION

A University Open to Society, Progressing gether with Society

Electromagnetic Anechoic Chamber

Completion of the "Hiroshima University Digital Monozukuri (Manufacturing) Innovation Hub" at the Hiroshima Central **Science Park**

The "Hiroshima University Digital Monozukuri (Manufacturing) Innovation Hub," completed in February 2024, is a multi-purpose facility with dedicated areas for research and development advancing carbon neutrality, spaces for collaborative research with companies, incubation zones for university startups, an open innovation hall for industry networking, and shared meeting rooms. It is designed to be widely used not only by Hiroshima University faculty, staff, and students but also by local businesses.







Hiroshima University Digital Monozukuri (Manufacturing) **Innovation Hub**

〒739-0046 Higashi-Hiroshima City, Kagamiyama 3-10-31 (Hiroshima Central Science Park) TEL 082-430-8513

For more information https://hudmerc.hiroshima-u.ac.jp/



Hosting a Hands-On **Business Creation Workshop**

On February 4, 2024, we invited Mr. Yasunori Okajima, Program Director of "HAX Tokyo," to hold a Hands-On Business Creation Workshop for high school students in the GSC Hiroshima Jump Stage*. The workshop provided a valuable opportunity to learn business creation practically from setting a theme, forming teams, and building business models, to giving presentations.

*GSC (Global Science Campus) Hiroshima is a program designed for high school students interested in science. It offers opportunities to engage with cutting-edge science lectures, practical exercises, and research and development. The educational programs consist of three levels: Hop, Step, and Jump.





Community Collaboration Floor SENDA LAB

〒730-0053 Hiroshima City, Naka-ku, Higashi-Senda-machi 1-1-89 (5th floor, General Building L, Higashi-Senda Campus, Hiroshima University) TEL 082-542-7305

> iagcc/ccc/sendalab (Page in Japanese)

For more information





Holding the "Experiential Health Seminar: What is Equol?"

Equol is a substance produced when soy isoflavones are metabolized by intestinal bacteria, and because it acts similarly to female hormones in the body, it is expected to have various health benefits regardless of gender or age. An event to learn about Equol, where participants could individually measure their ability to produce Equol, was held on May 29, 2024, organized by Kyocera Corporation. The event was well-received as participants could easily understand "what they need" based on their own test results.

https://www.sukijyaken.jp/en/psi

 \sim The Importance and Challenge of Communication \sim

This was a valuable opportunity to experience the difficulty of conveying one's thoughts

accurately and gaining empathy from others.

For more information

100

Please look out for HU's endeavors in creating industries! Championing the creation of startup companies

Peace & Science Innovation Ecosystem (PSI)

"Peace & Science Innovation Ecosystem: PSI" is a startup ecosystem with the vision of "creating innovation in the world in the spirit of pursuing peace." It is a collaborative initiative involving 16 universities from nine prefectures in the Chugoku-Shikoku region, including Hiroshima University. In 10 years, PSI aims to become "one of the global ecosystems that gathers startups and supporters from around the world to create innovation while aspiring for peace." To achieve this goal, PSI will provide funding support to bridge the gap between research and commercialization (GAP Fund), expand support personnel, enhance the entrepreneurial environment, establish global hubs, and organize Demo Days (pitch events for stakeholders).

Higashihiroshima City Student Startup Challenge

The Higashihiroshima City Student Startup Challenge, supported by Higashihiroshima City and Hiroshima University, started in AY 2021 as an initiative to embody students' uninhibited and creative ideas and entrepreneurial mindset born from their daily lives and experiences in classes. In addition to supporting student teams with activity expenses, this project supports students, aiming to commercialize their projects by providing free advice and cooperation from university faculty and staff and venture capital. In AY 2023, we supported the activities of a total of 10 teams: eight teams from Hiroshima University and two teams from Kindai University. There have already been cases in which student teams that received support have started venture companies.

[Venture Company Establishment Achievements] WEAVE Inc. (Established in October 2022): No-code tool consulting business, SNS management support business.

Hiroshima University TOPIC Industry-Government-Academia Collaboration

https://www.sukijyaken.jp/en

植物乳酸菌発酵エキス MY FLOR

Provision of activity expenses of

approximately 300,000 yen per project

AY 2022 17 applications 10 selected

AY 2023 19 applications 10 selected

We aim to further strengthen collaboration between industry, government, and academia!

Promoting industry-government-academia collaboration using digital tools

The Hiroshima LOVE it consortium, a next-generation DX consortium, was established in October 2022 by Hiroshima University to further deepen its collaborations with a wide variety of companies and organizations. By using digital tools to their full extent, this consortium will grasp the needs of companies and organizations more quickly and efficiently than ever before to strengthen collaborations. Together with the 98 participating institutions (as of the end of March 2024), we will further enhance industry-government-academia collaboration.

Products born from industry-government-academia collaboration at Hiroshima University

La Creche EX Medicated Liquid Toothpaste

Created through a collaboration with JEX Co., Ltd., this is a new type of oral care product containing lactic acid bacteria. Professor Hiroki Nikawa of Hiroshima University, who has studied periodontal and cavity-causing bacteria, discovered the L8020 lactic acid bacteria, which naturally exists in the mouths of healthy individuals. "La Creche EX Medicated Liquid Toothpaste," which uses the L8020 lactic acid bacteria, features a unique thickening formula that reaches into the gaps between teeth. It is effective in preventing periodontal disease and can also be used by individuals with sensitive teeth.

My Flora

This is a "gut health drink" born from the collaboration between Nomura Dairy Products Co., Ltd. and Professor Masanori Sugiyama of Hiroshima University. The drink contains the plant-based lactic acid bacteria "Lactobacillus plantarum," which reaches the intestines alive and helps balance the gut flora. Just one cup a day will help you feel "refreshed." It has been tested in human clinical trials, making it a product we confidently recommend.





Located in a building adjacent to Hiroshima Station, the "Hiroshima University Kiteminsai Lab" sells products born from Hiroshima University's industry-government-academia collaboration activities as well as Hiroshima University merchandise. Please feel free to take a look.

To further develop its education and research, Hiroshima University efficiently utilizes its financial resources, mainly comprising tuition fees and government grants. The university has also established funds for student support programs, among other purposes.

Hiroshima University Income and Expenditure (AY 2023)



Totals may not sum exactly due to rounding.

Foundations and Funds

Hiroshima University operates a donation system to fund student support programs, assisting excellent students experiencing difficulty in continuing their studies due to economic reasons and supporting Japanese and international students studying abroad and in Japan. Corporate and individual donors can benefit from tax deductions in accordance with the sum of their donation. Donors offering above a specified amount are publicly honored or presented with a commemorative gift.

The fund for uplifting Hiroshima University and energizing the local communities of Hiroshima has been launched (for the "75+75th anniversary" of Hiroshima University).

Hiroshima University, established 75 years after the founding of its forerunner, the Hakushima School, celebrated its 75th anniversary in 2024. In preparation for this milestone, the university has been working on campus development projects, including relocating the School of Law to the Higashi-Senda Campus. Future plans include developing a vaccine and pharmaceutical manufacturing base to create innovation in Hiroshima. In addition to ongoing student support and international exchange projects, efforts will be made to enhance initiatives for social contribution, educational and research environment development, and research assistance. Your continued support is greatly appreciated.

The Hiroshima University Fund

(established in AY 2007)

Projects to support students and researchers are carried out to develop "peace-pursuing, cultured individuals with an international mindset and a challenging spirit" to make Hiroshima a Top 100 university.

Objective ① Hiroshima University Phoenix Scholarship / Splendor Scholarship

Hiroshima University's original scholarship to offer 100,000 yen per month to students demonstrating excellent academic results while experiencing difficulty in starting or continuing university education due to economic reasons

Objective START Program and START+ Program

Partial coverage of travel and accommodation expenses for participants in the START Program targeting first-year undergraduate students who have little overseas experience, and in the START+ Program designed for second- and third-year undergraduate students aimed for their independent learning

Objective Support for graduate students' conference attendance

Support for graduate students attending international academic conferences held abroad, to increase their paper-reading opportunities overseas and promote their research

Number of beneficiaries (AY 2008-2024)

245 students

Number of beneficiaries (AY 2010-2023)

1,971 students

Number of beneficiaries (AY 2011-2023) **2,062** students

Hiroshima University Fund with Sponsor's Title

(established in AY 2015)

Hiroshima University supports international and Japanese students through projects named after donors or according to donors' wishes, to make the whole world HU's campus.

Objective Scholarship for international students

Hiroshima University has a pre-entry scholarship system in which recipients are selected prior to their arrival in Japan so as to ensure a large number of international students and globalize the campus.

Objective O Scholarship for Japanese students studying abroad

Japanese students studying abroad can benefit from this scholarship established to train "peace-pursuing, cultured individuals with an international mindset and a challenging spirit" and aspire for international-scale activities.

Hiroshima University hosts a range of lectures and fora featuring world-renowned researchers and leaders in their respective fields to intellectually stimulate and motivate the students.

From Hiroshima University to the World - The Wisdom of World-Renowned Researchers -

Hiroshima University invites Nobel Prize winners and other world-leading researchers to hold lecture and discussion sessions on a regular basis. This provides valuable opportunities for students who aim to become a scientist, allowing them to feel close to findings and studies that have astonished the entire world.



Becoming a Global Citizen : Lecture by Special Instructor

As part of liberal arts education, Hiroshima University invites leaders who play active roles in a variety of fields, such as sports, arts, science and business, to hold lecture meetings mainly for new undergraduate students. Their special lectures provide students with opportunities to learn the perspectives and histories of such leaders and to consider the goals of their campus lives and future dreams.



Dr. IOKIBE Makoto President, Hyogo Earthquake Memorial 21st Century Research Institute Political scientist and historian (Passed away on March 6, 2024)

Mr. IKEGAMI Akira Freelance journalist



Professor, Graduate School of Pharmaceutical Sciences The University of Tokyo

Dr. IKEGAYA Yuji



Mr. ITO Toyo Architect

Mr. INOUE Kosei Coach.



Grandmaster, Ueda Soko Tradition of Japanese Tea Ceremony



Mr. KAWABUCHI Saburo Captain (advisor), The Japan Football Association First chairman, The J.League

Mr. KUSUNOKI Yuji President, Rakuten Securities, Inc. Graduated School of Letters, Hiroshima University

《 Main lecturers in AY 2017-2024 》



Associate Professor, Research Center for Advanced Science and Technology, The University of Tokyo

Mr. TSUKUDA Kazuo Senior Executive Advisor, Mitsubishi Heavy Industries, Ltd.

Ms. NAKAMARU Michie Opera singer (winner of the Maria Callas Grand Prix)

Mr. NINOMIYA Seijun Sports journalist

Mr. NOMURA Kenjiro Baseball critic Former manager, The Hiroshima Toyo Carp

Mr. HIROKANE Kenshi







Mr. FUKAYAMA Hideki Chairman, The Hiroshima Chamber of Commerce and Industry Adviser and Honorary Chairman, Hiroshima Gas Co., Ltd.

Mr. FUWA Toru Former Director and Vice President. Wakunaga Pharmaceutical Co., Ltd.



Ms. HORIKAWA Keiko

Non-fiction writer, Graduated School of Integrated Arts and Sciences, Hiroshima University Keiko Horikawa©MAL

Mr. MIYAMA Hideaki Advisor. Hiroshima Television Corporation

Mr. Morley Robertson International journalist



Dr. MOGI Kenichiro Neuroscientist



Mr. YANO Hirotake Chairman, Daiso Sangyo Co., Ltd. (Passed away on February 12, 2024)



Dr. YAMAGIWA Juichi Director-General, Research Institute for Humanity and Nature The former President of Kyoto University

Mr. YAMASAKA Tetsuro President, Balcom Co., Ltd. Graduated School of Education, Hiroshima University

Mr. YAMASHITA Yoshinori Representative Director and Chairperson, Ricoh Company, Ltd., Graduated School of Engineering, Hiroshima University

(Japanese syllabary order, affiliations, titles, etc. are as of the date of the lecture.)

Hiroshima University is composed of three campuses (Higashi-Hiroshima, Kasumi, and Higashi-Senda). Aside from the School and Graduate School buildings, the campuses consists of five libraries and various other experimental and research facilities, as well as cultural and sports facilities, which provide a wide range of front-line educational and research activities.



Kasumi Campus Hiroshima City

School of Medicine

School of Dentistry School of Pharmaceutical Sciences

To JR Hiroshima Station

Institute of

q Bus Stop (Daigakubyoinmae)

(Outpatient Ward)

Hiroshima University

History of Medicine

Starbucks Coffee 🚽

Experimental Station

School of Pharmaceutica

rogram of Medicine chool of Medicine

Research Institute for **Radiation Biology and Medicine**

Kasumi Hall Restaurant/Shop)

of Medical Plants

School Dentis

Kasumi Campus, located in Hiroshima City, is home to the Schools of Medicine, Dentistry and Pharmaceutical Sciences, as well as the Graduate School of Biomedical and Health Sciences. It is also the site of research facilities and the Hiroshima University Hospital. Our campus plays a major role as a base for providing state-of-the-art medical care education, research, and clinical information.

A base for providing state-of-the-art medical care education, research, and clinical information.

FIREU

To Ujina (Hiroshima Port)

Ryozanpaku (Resident House)



Higashi-Senda Campus Hiroshima City

Kasumi Librar

Ryoun Lecture Building

Ryoun Lecture Building

(New Lecture Building)

I I I I I I

School of Law

School of Economics Evening Course

The Higashi-Senda Campus is located in Hiroshima City, covering a part of the former site of Hiroshima University prior to its relocation to Higashi-Hiroshima City, where the most HU divisions are assembled on a single campus. The School of Law (daytime and evening courses) and the School of Economics (evening course) hold classes on this campus.



Phoenix International Center MIRAI CREA

(Higashi-Hiroshima Campus)

The Phoenix International Center ("MIRAI CREA"), opened in October 2021, is housed in a building designed on the concept of a "green-lined hill of encounters and exchanges," with a symbolic exterior embodying a sustainable society. It has a spacious multi-purpose hall, a community kitchen, a cafeteria, meeting rooms, and other facilities.

Residential rooms and exchange lounges occupy the third to seventh floors. The seventh-floor houses executive rooms for selected researchers. The center is well equipped for multiple purposes, including diverse academic and cultural activities, knowledge-sharing events, and safe and comfortable residences for selected researchers and students visiting from abroad. MIRAI CREA is expected to serve as a hub of knowledge to further enhance the status of Higashi Hiroshima as an international research center.



approximately 370,000 books.



Fukuyama Tsuun Komaru Nigiwai Pavillion (Higashi-Hiroshima Campus)

The pavillion was completed in 2019 as a multipurpose facility for students. Its interior features locally sourced wood from Hiroshima Prefecture. The pavillion can be used for various purposes, including students' business start-up activities, meetings and self-study. This building was constructed by Yamane Holdings Co., Ltd. through generous donations from Fukuyama Transporting Co., Ltd. and the Shibuya Ikueikai Foundation.





Facility Outline (as of 2024)

Libraries

Libra	Surface area	No. of seats for reading	No. of volumes	Main categories in the collection	
Central Library		16,053m ²	992 seats	Approx. 2.27 million	Books and periodicals in the fields of education, humanities and social sciences, and natural sciences
East Library	Higashi-Hiroshima Campus	1,745m ²	32 seats	Approx. 0.24 million	Books and periodicals in the fields of engineering, biology, and other natural sciences
West Library		6,102m ²	839 seats	Approx. 0.64 million	General books, study guides, periodicals in all subjects and books on natural sciences
Kasumi Library	Kasumi Campus	2,382m ²	385 seats	Approx. 0.19 million	Books and periodicals in the fields of medicine, dentistry, pharmacology, and public health
Higashi-Senda Librar	Higashi-Senda Campus	1,610m ²	90 seats	Approx. 0.07 million	Books and periodicals in the fields of law and economics

Databases and Services

The libraries have databases for newspaper and journal article search and other purposes. At the libraries, audiovisual materials, including movies, music, and language learning software, are available. Library staff is ready to help visitors to locate materials and information necessary for their studies and research.

Writing Center

This is where students can turn to for help when they experience difficulty with academic writing while preparing class projects, term papers, and the like. Graduate students who underwent specialized training in writing instruction serve as tutors and use dialogue, brainstorming, and other techniques to help writers to write better. Assistance in academic writing in English is also available.

The Hiroshima University library system comprises five libraries and holds approximately 3.41 million volumes in total, one of the largest university collections in Japan. The Central Library has an "automated bookshelf" that receives instructions from a computer and transports books from the shelves to the counter, and it holds





Learning support space, BIBLA

The libraries are provided with free spaces for students' activities, such as group work, discussion, and preparation for presentations, as well as independent study using the internet (Wi-Fi). Movable whiteboards available for free use and spacious tables perfect for spreading out books and documents are particularly appreciated by users. BIBLA in the Kasumi Library is open around the clock to students whose home campus is Kasumi.

Special Collections

The Central Library holds Special Collections of rare and valuable materials. The Collections include private collections, special collections, large collections, and depository collections. Some items from the collections are digitized and made available online as digital collections.



Gakumon no Susume (Encouragement of Learning) by Yukichi Fukuzawa, 1872

Das Kapita

The first edition of Capital, Volume 1, by Karl Marx

Japanese edition For more information \rangle https://www.lib.hiroshima-u.ac.jp



English edition https://www.lib.hiroshima-u.ac.jp/?lang=english



Satake Memorial Hall (Higashi-Hiroshima Campus)

Constructed to commemorate the 50th anniversary of Hiroshima University's establishment, Satake Memorial Hall has a beautiful exterior designed to resemble a grand piano. The hall is used for various purposes, including academic conferences, concerts, theatrical plays and other performing arts, and local community events. This building was constructed with donations from Satake Corporation, other companies, and HU graduates.



Hiroshima University $Museum ~ {\rm (Higashi-Hiroshima Campus)}$

Hiroshima University Museum is an Eco-museum. In the area, there is the main museum, seven satellite museums, and the Path of Discovery (a natural promenade across the vast Higashi-Hiroshima Campus) linking these museums. In addition to its permanent exhibition, the Museum organizes theme-based exhibitions, nature observation tours (Field Navi) and other events.

Main Museum

This is the central facility of the Hiroshima University Museum, which introduces the university and exhibits rare artifacts and documents relating to the local environment and culture, such as fossils and stuffed specimens. It also serves as the information center for the whole museum complex.

Satellite Museums

Satellite museums exhibit artifacts and documents relating to the specializations of the respective schools and centers concerned. They are situated at seven locations: the Archaeological Research Section, the School of Applied Biological Science, the School of Science, the School of Letters, the Central Library, the Amphibian Research Center, and the Higashi-Hiroshima Botanical Garden.

Higashi-Senda Innovative Research Center (Higashi-Senda Campus)



Established to conduct lectures for the School of Law, the center also carries out educational and research projects in collaboration with industry, academia, and government. Additionally, it is equipped with facilities used by many students of the Higashi-Senda Campus, such as the Health Service Center, the Higashi-Senda Terminal Room, and BIBLA Senda, a self-study area.

Hiroshima University Hospital (Kasumi Campus)

Legal Service Center (Higashi-Senda Campus)



The Graduate School of Humanities and Social Sciences Legal Service Center was established in 2005 as part of Hiroshima University Law School's social contribution activities. It offers free legal counseling concerning civil affairs once a week.



Along this trail, you can enjoy nature in changing seasons and observe a variety of animals and plants that live on Higashi-Hiroshima Campus, including some endangered species, and numerous ruins of pre-historic and later ages.

Institute of History of Medicine (Kasumi Campus)



The present Hiroshima University Institute of History of Medicine was completed in 1999, retaining almost the same design as that of the former Institute of History of Medicine, which was used as an arms depot of the Hiroshima Army Weaponry Factory during the war. The current building, partially constructed with bricks and stones in use at the time of the atomic bombing, is designated as a hibaku building.

With the philosophy of "Provide holistic and integrated medical care," "Foster superior medical experts," and "Pursue new medical innovations," Hiroshima University Hospital, as a core hospital in the Chugoku/Shikoku area, offers advanced medical care that reflects the latest headways in the rapidly progressing field of medicine.

Partnership with Local Professional Sports Teams

Hiroshima serves as a base for professional sports teams, including Hiroshima Toyo Carp, Sanfrecce Hiroshima F.C., Hiroshima Thunders, and Hiroshima Dragonflies. In active collaboration with these teams, Hiroshima University Hospital contributes to improving their performance through measurement of the physical fitness of newly joined players, and daily healthcare guidance.



Disaster response



When a disaster occurs, the Disaster Medical Assistance Team (DMAT) is dispatched to provide active medical support in the affected areas. Following the Noto Peninsula Earthquake, several teams were mobilized: DMAT, the Japan Disaster Rehabilitation Assistance Team (JRAT), the Japan Medical Association Team (JMAT), disaster support nurses, the Disaster Infection Control Team (DICT), and disaster-registered pharmacists from the Japan Society of Hospital Pharmacists. A total of 33 personnel, primarily doctors and nurses, were engaged in medical support activities in the disaster-stricken areas.

For more information









History

Hiroshima University has nine schools as its forerunners, which is the largest number in Japan. Firstly, seven schools were integrated, namely Hiroshima Normal School (formerly Hakushima School, established in 1874), Hiroshima Women's Higher Normal School (formerly Hiroshima Girl's High School, established in 1887), Hiroshima Higher Normal School (established in 1902), Hiroshima Higher Technical School (formerly Hiroshima High Institute of Technology, established in 1920), Hiroshima Prefectural Training Institute for Teachers of Young Men's Schools (formerly Hiroshima Prefectural Training Institute for Teachers of Vocational Supplementary Schools, established in 1922), Hiroshima High School (established in 1923), and Hiroshima University of Literature and Science (established in 1929). Secondly, Hiroshima Municipal Higher Technical School (established in 1945) was annexed, and Hiroshima University came into being under the new university system. In 1953, Hiroshima Medical College was reorganized under the new system (formerly Hiroshima Prefectural Medical School, established in 1945) and merged into Hiroshima University.

1874 •Establishment of the schools that were later reorganized and integrated into Hiroshima University



1945

Atomic bombing in Hiroshima City



1949

 Establishment of Hiroshima University (with six undergraduate faculties, four annex schools, and one research center) as one of the national universities of Japan under the new educational system

1950

- Opening ceremony of Hiroshima University
- Declaration by the first President Tatsuo Morito: Hiroshima University will be "a single unified university, free and pursuing peace"

1953

- Integration of Hiroshima Prefectural Medical College into Hiroshima University
- Establishment of Hiroshima University Graduate Schools (three schools)



1956

 Adoption of the Hiroshima University crest

1957

 Adoption of the Hiroshima University song

1972

 Decision by the Council for the integration and relocation of Hiroshima University

1982

Opening of Higashi-Hiroshima Campus



1995

Completion of university integration and relocation

1999 The 50th anniversary

2002

 Establishment of Hiroshima University's first overseas base in Beijing, China



2004

Reorganization of Hiroshima University as a national university corporation

2006

 Introduction of the Hiroshima University Program of Specified Education and Study

2013

•Opening of new outpatient clinical building

2016

Opening of the Higashi-Senda Innovative Research Center

2018

 Establishment of the School of Informatics and Data Science

2019

 Establishment of graduate schools (Graduate School of Integrated Sciences for Life, Graduate School of Biomedical and Health Sciences)

2020

•Establishment of graduate schools (Graduate School of Humanities and Social Sciences, Graduate School of Advanced Science and Engineering)

2021

Opening of Hiroshima University Phoenix International Center MIRAI CREA

2022

Opening of the Arizona State University (ASU) Thunderbird School of Global Management-Hiroshima University Global School

2023

 School of Law relocates to Higashi-Senda Campus



 Establishment of the Graduate School of Innovation and Practice for Smart Society

2024 The 75th Anniversary



Access to Higashi-Hiroshima Campus

Narita Airport	By Air 80~100min. Haneda Bus Airport		90min. Hiroshima Plane Airport Bus		Shiraichi Sta.	10min. Saijo Sta.	15min. Bus	imin. Bus	
	By JR 80min. Limited Exp.	Tokyo Sta.	200~250min. Shinkansen	Fukuyama Sta.	40min. Shinkansen	Higashi-Hiroshima Sta.	15min. Bus* or Taxi	Hiroshima	
Kansai Airport	By JR 60min. Limited Exp.	Shin-Osaka sta.	70min. Shinkansen	Fukuyama Sta.	40min. Shinkansen	Higashi-Hiroshima Sta.	15min. Bus* or Taxi	Campus	

* HU-bound bus service operated only on weekday mornings

Access to Kasumi Campus

Narita Airport	By Air 80~100min. Bus	90min. H Plane	liroshima Airport	15min. Bus	50min. Bus Shiraichi Sta.	50min. Local Train	Hiroshima Sta.	15min. Bus		
	By JR 80min. Limited Exp.	Tokyo Sta.			250min Shinkanser	1		Hiroshima Sta.	15min. Bus	Kasumi Campus
Kansai Airport	By JR 60min Limited E	<u>.</u> хр.	Shin-Osal sta.	ka	Sł	90min. Ninkansen		Hiroshima Sta.	15min. Bus	

Access to Higashi-Senda Campus

Narita Airport	By Air 80~100min. Handaria Bus Bus Airp By JR 80min. Tok Limited Exp. State	eda <u>90min.</u> Plane Xyo a.	Hiroshima Airport	15min. Bus 250min Shinkansen	50min. Local Train	Hiroshima Sta. Hiroshima Sta.	<u>30min.</u> Tram <u>30min.</u> Tram	Higashi- Senda
Kansai Airport	By JR 60min. Limited Exp.	Shin-Osa sta.	aka	90min. Shinkansen		Hiroshima Sta.	<u>30min.</u> Tram	Campus

Row out into a sea of chaos; go beyond the horizon of creativity





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