





PROSPECTUS

2021-2022

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

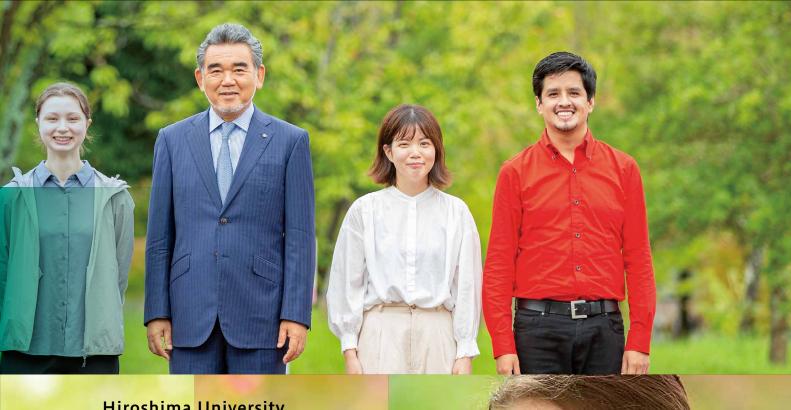


UNIVERSITY OF WORLD-WIDE REPUTE AND SPLENDOR FOR YEARS INTO THE FUTURE

Hiroshima University was established on the land of Hiroshima as a 'university of peace' in 1949, four years after the atomic bomb was dropped. Since then, HU has continued its progress as a leading comprehensive research university in Japan. The year 2020 saw the completion of graduate school reform and launch of a four-graduate-school system: the Graduate School of Humanities and Social Sciences; the Graduate School of Advanced Science and Engineering; the Graduate School of Integrated Sciences for Life; and the Graduate School of Biomedical and Health Sciences. Aiming to further expand globally while remaining deeply rooted in the local community, Hiroshima University will seek to open a new horizon in the fields of education, research and social contribution in the "with- and post-coronavirus" eras.

OCHI Mitsuo
President
Hiroshima University





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.

of Peace

Continuous Self-Development The Creation of New Forms of Knowledge

Collaboration with the Local, Regional and International

The Nurturing of



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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.

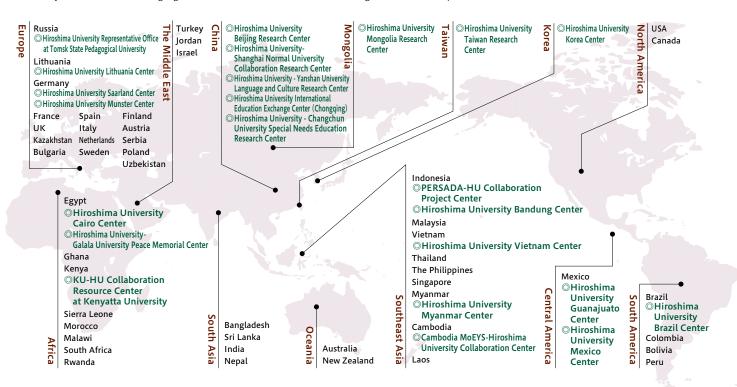
Organization for Education and Research (as of April 1, 2021)

Schools (undergradua	ate)	- Hospital
School of	Department of Integrated Arts and Sciences	
Integrated Arts and Sciences	Department of Integrated Global Studies	Libraries
School of Letters	Department of Humanities	Central Library
	Cluster 1 (School Education)	East Library
	Cluster 2 (Science, Technology and Society Education)	West Library
School of Education	Cluster 3 (Language and Culture Education)	Kasumi Library
	Cluster 4 (Life-long Activities Education)	Higashi-Senda Library
	Cluster 5 (Fundamentals for Education and Human Development)	
School of Law	Department of Law	Headquarters for Education
	Department of Economics	
School of Economics	Center for Research on Regional Economic Systems	National Joint Usage Facilities
	Department of Mathematics	Hiroshima Synchrotron Radiation Center
	Department of Physics	Timosimia syriamonom radiation center
	Department of Chemistry	Joint Usage Facilities for National Universities in the Chugoku/Shikoku Are
School of Science	Department of Biological Science	Saijo Seminar House
	Department of Biological Science Department of Earth and Planetary Systems Science	Saljo Sellillai Flouse
	Center for Developing Pioneers in Science	Joint Education and Research Facilities on Campus
	Program of Medicine	Research Institute for Nanodevice and Bio Systems
School of Medicine	Program of Health Sciences	Research Institute for Higher Education
	Program of Dentistry	Information Media Center
School of Dentistry	Program of Oral Health Sciences	Natural Science Center for Basic Research and Development
		·
School of	Program of Pharmaceutical Sciences	Morito Institute of Global Higher Education
Pharmaceutical Sciences	Program of Medicinal Sciences	Center for the Study of International Cooperation in Education
	Experimental Station of Medicinal Plants	Health Service Center
	Cluster 1 (Mechanical Systems, Transportation, Material and Energy)	The Center for Peace
School of Engineering	Cluster 2 (Electrical, Electronic and Systems Engineering)	Environmental Research and Management Center
	Cluster 3 (Applied Chemistry, Biotechnology and Chemical Engineering)	Hiroshima University Museum
	Cluster 4 (Civil Engineering and Architecture)	Beijing Research Center
School of Applied Biological Science	Department of Applied Biological Science	Hiroshima Astrophysical Science Center
	Training and Research Vessel TOYOSHIO MARU	Institute for Foreign Language Research and Education
School of Informatics and Data Science	Department of Informatics and Data Science	Hiroshima University Archives
		Institute of Sport
Graduate Schools		HiSIM Research Center
	Division of Humanities and Social Sciences	The Center for Contemporary India Studies at Hiroshima University
Graduate School of	Division of Educational Sciences	Research Center for Diversity and Inclusion
Humanities and Social Sciences	Division of Professional Development for Teachers and School Leaders	Amphibian Research Center
Jocial Sciences	Division of Law School	Translational Research Center
	Joint International Master's Programme in Sustainable Development (Hiroshima University – University of Graz)	Resilience Research Center
Graduate School of Advanced	Division of Advanced Science and Engineering	Center for Brain, Mind and KANSEI Sciences Research
Science and Engineering	Joint International Master's Programme in Sustainable Development (Hiroshima University – Leipzig University)	Hiroshima University Genome Editing Innovation Center
Graduate School of Integrated Sciences for Life	Division of Integrated Sciences for Life	Hiroshima University Digital Monozukuri (Manufacturing) Education and Research Cent
Graduate School of Biomedical	Division of Biomedical Sciences	Education and Research Center for Artificial Intelligence and Data Innovation
and Health Sciences	Division of Integrated Health Sciences	
		Joint Usage Facility on Campus
Advanced Course		Harassment Consultation Office
Special Course of Special Su	upport Education	
		Attached Schools

Overseas Network and Bases (as of May 1, 2021)

Hiroshima University has international exchange agreements at the university level in 54 countries/regions, as well as at the faculty level in 51 countries/regions. The overseas bases are in 15 countries/regions: Brazil, Cambodia, China, Egypt, Germany, Indonesia, Kenya, Korea, Lithuania, Mexico, Mongolia, Myanmar, Russia, Taiwan and Vietnam.

*University-level international exchange agreements have been concluded in the countries/regions listed on the map.



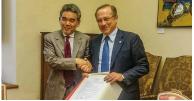
International Exchange Agreements



54 countries and regions 342 organizations 381 agreements



51 countries and regions 361 organizations 399 agreements



Signing an inter-university agreement with the University of Parma, Italy (October, 2019)



Opening of the Hiroshima University Munster Center (May, 2019)

Shinonome District (Hiroshima City)

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 Offices provide consultation services on college admission.

Tokyo Office

2F Saiwai Bldg., 1-3-1, Uchisaiwaicho, 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

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.

Hiroshima University

Shinonome

Midori District (Hiroshima City)....



Hiroshima University

Higashi Hiroshima District (Higashi Hiroshima City)



Hiroshima University



Hiroshima University Senior High School

Mihara District



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



Hiroshima University Shinonome





Hiroshima University Junior High School, Fukuyama Hiroshima University Senior High School, Fukuyama

SPECIAL TALK

The power of animated films to create peace



Mr. KATABUCHI Sunao, a director of animated films whose signature titles include *In This Corner of the World* and *In This Corner* (and Other Corners) of the World, participated in the Hiroshima University Peace Project called "Peace from the Perspective of Art," held on August 6, 2021, on the anniversary of the atomic bombing of Hiroshima. Mr. Katabuchi joined the event remotely online from Tokyo via Zoom due to the COVID-19 pandemic, and gave a talk titled "Between 76 and 1,021 years ago: Women who found a place to work amid a state of emergency." Afterward, he met with President Ochi of Hiroshima University, and the two discussed how Mr. Katabuchi became involved in making animated films, which, as in the case of the movies mentioned above, he used as a vehicle to depict war and ordinary people's daily lives. They also exchanged thoughts on various topics including the university's peace initiatives.



As a middle schooler, Mr. Katabuchi (fourth from the left) was absorbed in making movies with his teacher and friends.

Looking through the viewfinder

President Ochi: Mr. Katabuchi, thank you very much for participating in Hiroshima University's Peace Project today, which is the 76th anniversary of the atomic bombing of Hiroshima. You delivered an online lecture from Tokyo as a precautionary measure to prevent the spread of COVID-19 infections. Your detailed discussion about how women's greater participation in society is related to war made a significant impression on me. First of all, I would like to ask you about your childhood. What were you like as a child, and what interested you most in those days?

Mr. Katabuchi: During the higher grades of primary school, I got into the habit of taking my father's half-size camera on school outings and excursions. I liked looking through the viewfinder, which made me feel as if I was indeed capturing a corner of this world. In junior high school, my classmates and I made movies. I continued to advance my skills in high school, where I began shooting with an 8 mm camera. In those days, I aspired to become a documentary cameraman. I guess by then it had become second nature to capture portions of this world and rearrange them to express something inside me.

About that time, I discovered animation films, and I decided to go in that direction. I took the entrance exam for the department of cinema at the College of Art at

Nihon University, where several major figures in Japanese animation history were teaching. I passed the exam, and, by my third year, I had already begun to enter the professional world of animation. I spent no time wandering off, trying other things. I felt then that I had followed a single uninterrupted path as a creator, which has since continued.

Ochi: That's quite exceptional, staying on the same path from the beginning like that, while there are many young people trying many different things and making detours, not knowing what they really want to do for a long time. Concerning university admission, I understand that you also passed an entrance exam to major in science and engineering.

Katabuchi: Yes. I decided to try for science and

engineering because of a close friend of my father's. My father was working for a fountain pen manufacturer. His friend was in charge of creating new ink colors by mixing various ingredients at the company's plant in Kure. He used to stay with us when he came out on his business trips, and he and my father would have long talks about technical topics on those occasions. He would also show me what he had made, explaining the mixing processes and giving me samples. I thought that chemically creating new colors was an interesting job, so I decided to study science and engineering, but I passed the exam to enter the cinema department as well. Making movies and animation is about using colors. Finally, I chose the path of telling stories with colors.



©KOUNO Fumiyo/Futabasha/Konosekai no katasumini Project

In This Corner of the World breathed new life into the "war story" genre. The addition of several new episodes to it resulted in In This Corner (and Other Corners) of the World (released in 2019).

Mr. TSUKIOKA Sadao, became a lecturer at my university. The other, Mr. OTSUKA Yasuo, was a senior employee at the company I joined upon graduation. So, I was mysteriously led to learning by these two great animators, who produced the very scene I remember watching at the age of two. This is why I feel that I have been following on a single path all my life.

Ochi: My first memory is vague, and it's of almost drowning in a pond when I was three or four. I read MISHIMA Yukio's detailed description of his first bath, but your first memory is still very early at the age of two years and 11 months.

Katabuchi: I also vaguely remember the dialogue in the film. I think that my memory has since been reinforced and amplified each time I re-watched

the movie. Mr. OTSUKA Yasuo, who was the principal animator of the movie, worked in the field of plastic models for a period, and his name was familiar to me during my junior high school days. I used to believe they were two different people with the same name. I still vividly remember the shock I felt when I realized they were the same person! I felt I had discovered something special. Later, I learned from Mr. Otsuka at the company where I worked. He passed away in March 2021. I wanted to learn more from him and hear him tell me more stories. I'm truly saddened by his passing.

Ochi: It must have been a huge surprise when you discovered that those two were, in fact, the same person. I myself have had a similar experience. I was talking with an American orthopedic surgeon who had come to Japan to give lectures on artificial joints. It suddenly dawned on me that his name was the same as that of the doctor who had developed the knee ligament reconstruction method that I had been basing my clinical practice on for some time. Biological reconstruction and artificial joint replacement are completely opposite methods. As I continued talking with him, I realized that he was, in fact, the developer. I remember how surprised I was, and yet I suddenly felt much closer to him at the same time.

Memory at the age of two years and 11 months

Ochi: Your grandfather ran a movie theater. Do you think that's related to your career choice? **Katabuchi:** My maternal grandfather ran a movie theater in Hirakata City in Osaka Prefecture until I was about 10 years old. In those days, I used to go and see at least one or two animated movies per year. Strangely, I remember watching an animation movie when I was two years and 11 months old. It was *The Little Prince and the Eight-Headed Dragon.* I remember the best scene in the movie was its climax near the end, the final battle between Susanoo and Yamata no Orochi. One of the two animators who created this scene.

In This Corner of the World

Ochi: Anyway, *In This Corner of the World* was released in 2016 and had the longest theatrical run in Japan. In your opinion, what is so attractive about this film?

Katabuchi: In recent years, animation moviegoers have become older. People in their forties and fifties go to theaters to watch animation films quite regularly. Repeat viewers often take their parents in their seventies and eighties with them. There have been theaters filled with people in these age groups. One woman who approached me at one of the viewings of *In This Corner of the World* was in her nineties and in excellent health.

She said to me, "This film is the testimony of my life." We created the film based on the research we did to the best of our ability, but, needless to say, we were not 100% sure of the historical accuracy or truthfulness of certain elements. Then people who actually experienced the war said to us that the general atmosphere in those days was perfectly captured in the film. That felt like receiving a passing grade to us.

During another viewing of In This Corner of the World at a theater in Kure, elderly locals were telling their younger companions, "That's where that building is located today," "Yes, it was like that back then," and so on, but nobody would shush them. On the contrary, many people felt that such exchanges added a valuable dimension to the movie by broadening its universe. Such an experience makes you realize there is a world beyond this corner of the world. There was probably a general consensus that war should be depicted in a somewhat stereotypical way in movies, but In This Corner has probably opened up people's minds to how war can be portrayed as a purely personal experience. Another thing that probably attracted people was the character Suzu, who was created by the original manga artist, Ms. KOUNO Fumiyo. People felt close to her, as if she was somebody they knew.

Ochi: In the movie, the scenery, how women made *monpe* trousers out of kimonos, and other details were historically accurate and authentic and backed by research. That the characters experience the war and the atomic bombing in



OCHI, Mitsuo, M.D., Ph.D.

Born in 1952 in Imabari City, Ehime Prefecture, Dr. Ochi graduated from the Faculty of Medicine, Hiroshima University, and chose orthopedic surgery as his specialization. In 1995, he became a professor at Shimane Medical University (the present-day Faculty of Medicine of Shimane University). In 2002, he assumed the post of professor at Hiroshima University Graduate School of Biomedical 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. In the same year, he was awarded the Order of Culture Medal with Purple Ribbon. In 2021, he was appointed a member of the Central Council for Education of Japan's Ministry of Education, Culture, Sports, Science and Technology. Dr. Ochi's focus within his specialization is knee joint surgery.

Kure, which is some distance from Hiroshima, seems to accentuate the cruelty of the war all the more. I think the movie has been well received by so many people, including elderly people who personally lived through the war, because the story presents the war not superficially but as part of the ordinary everyday life that many people could have experienced across Japan.

Katabuchi: Yes, and the way in which Suzu makes *monpe* by cutting cloth with scissors is not correct: that scene shows how careless Suzu is. I was told about an episode in a movie theater in the Kansai region. One elderly woman said out loud during that scene, "Ah, silly girl, that's not how you do it!" A young person sitting next to her then reacted, "Oh, so that's not right? Thanks for the information."

A story around a small house

Ochi: What universal aspects of daily life did you want to express through Suzu?

Katabuchi: I wanted to show the meals Suzu prepares every day during the two-year period covered in the film. I thought it would be great to have all the meals she cooks in the film depicted again on the screen with the closing credits, but we couldn't do that because it was too difficult. Ms. Kouno also said that we could never know for sure what they used to eat every day in those days because there are no records of daily rationed food items. Basing the movie solely on historical facts would have been difficult because relevant documentation is limited.

For Suzu, everyday life was immensely important. People's daily lives before the atomic bombing of August 6 were connected to their lives after the event, at least for those who survived. Everyday life involves preparing and eating dinner every day, among other things. In the movie, we showed that the family had no side dish for the dinner on August 15, the day the war ended, but, on the following day, people again had their dinner, followed by another the next evening, and yet another, and so on. If you continue in this pattern, all these meals lead to the meals we're having today, this evening. I think Suzu symbolizes this kind of continuity of everyday life.

Ochi: So you depicted the days from August 6 to 15 onward in Japan through Suzu...I see. I suppose you had detailed discussions with Ms. Kouno about the vision of the world you wanted to express, historical facts, and so on. What did you learn about Hiroshima and Kure through such discussions?

Katabuchi: It happened to be on August 6, 2010, that I proposed the movie project. My journal entry says that I talked about it with the planning producer on August 6, but I didn't meet Ms. Kouno until almost a year later, in July 2011. We just didn't have the opportunity to meet in person because our schedules didn't allow it. Looking back, I think it was better that way. Instead of reading the original manga and asking her every single question we might have had in



KATABUCHI, Sunao

Born in Hirakata City, Osaka Prefecture, Mr. Katabuchi was still a student in the department of cinema in the College of Arts at Nihon University when he began participating in the production of MIYAZAKI Hayao's animation films as a scriptwriter. He worked as an assistant director for Miyazaki's Kiki's Delivery Service in 1989 and made his directorial debut with the TV animation series "Famous Dog Lassie" in 1996. In 2016, he directed In This Corner of the World, based on the original manga by KOUNO Fumiyo set in wartime Hiroshima and Kure. The film was highly acclaimed both in and outside Japan, receiving numerous awards, including the 40th Japan Academy Film Prize (Best Animation of the Year). In 2019, In This Corner (and Other Corners) of the World was released.

our first meeting soon afterward, we were able to conduct thorough research to the best of our ability and had only the questions that remained by the very end. Ms. Kouno herself had conducted historical research on her own from scratch before entering the universe of the period depicted in her manga. By going through a similar process, I came to understand what she had accomplished. She examined the war by focusing not on big historical events but on ground-level, everyday details. We did something similar, deepened our ideas, and finally met her in person. So, during our first meeting, we were totally on the same page and understood each other perfectly. Ms. Kouno is from Hiroshima, but she lived in Kure with her grandmother while attending Hiroshima University. She even knew the names of some small streets in Kure. All this made it possible for us to center the story around a small house and to thoroughly verify historical facts.

Thoroughly verifying historical facts

Ochi: In research in scientific fields, including medicine, reproducibility is as essential as originality. You also take the approach of thoroughly verifying historical facts to reproduce the reality of the stories in your films.

Katabuchi: I think it's been the tradition of Japanese moviemakers to do rigorous research beforehand because, in making movies, you have to show the places where actions occur. For

the film *Rodan* (1956), to shoot the scene where the giant flying monster lands in front of Hakata Station, the artistic crew actually went to Hakata and studied the area meticulously to the point of measuring the buildings to create their miniature models. I don't think our approach deviates much from this tradition, but, with animation films, it is also possible to create everything totally based on your imagination. This means that you run the risk of making everything only with what you already have in your head. This is quite limiting since you will quickly run out of things to use. I think it is by incorporating many things you have never imagined yourself that you can make movies that attract people.

That being said, it's also possible that we conduct careful research before drawing scenes because we long to be in this particular place at a particular time. What shade of color would the earth be if I went there and stood on the ground there? I want to know. What would I see from there? What shape would it be? I want to know and feel everything; this is what drove our research. It was very important for us, as important as conducting research for the overall movie, to create lively scenery in small corners of the world in front of ordinary people. Almost all the buildings depicted in In This Corner actually existed. Instead of drawing rows of houses based on our imagination, we tried to fill the space with images taken from old photos of actual houses. We cleared our minds of any preconceived images and recreated the scenery that used to actually be there in those days, even though it meant having to search for the smallest fragments of it…our greatest motivation behind this approach was that we wanted to be there and see the scenery for ourselves.

War destroys future possibility

Ochi: What you have just said reminds me of Warsaw, which I visited several times for speaking engagements. The Old Town of Warsaw, which was destroyed during World War II, was restored by the citizens after the war almost exactly to its pre-war condition, including the very cracks in the bricks, as they say. The restoration was based on old paintings, sketches, and photographs. There is probably something in common between what you have just said and the Varsovians' resolve to rebuild their city. Since 2011, you have visited Hiroshima several times. Could you tell me why?

Katabuchi: Many movies had already been made around the atomic bombing of Hiroshima, and I didn't want to create a work that the locals would describe as "just another Hiroshima movie by outsiders, by Tokyoites." I wanted mine to be a truly unique and unparalleled film. To do that, I knew I'd have to treat Hiroshima and Kure almost as my second hometowns. When I went to a local movie club in Kure and talked about what I had learned in my research, one of the members showed her trust in me, saying, "He pronounced all the names of the places in Kure with the correct accent." I noticed that I had assimilated things like

this unconsciously.

Ochi: Some critics have said that animation films cannot fully convey the realities of the war and atomic bombing.

Katabuchi: I thought that the biggest advantage of telling this story in an animation film would be to be able to simultaneously depict Suzu's ordinary life with her daily chores in and around her house, such as working on the farm and doing laundry, and the wartime community in her town with the naval base, a huge military facility, and the battleship Yamato in the background. All these existed in the same corner of the world. Neither the war nor daily life took place in a vacuum; rather, they always existed together, side by side, or with one shadowing the other. I think the significance of making an animation film is being able to do this kind of thing. Of course, you can put everything in the same frame in a live-action film using CGI, but I thought animation could present more impactful images.

War takes away people's possibilities. If you're killed, then there is absolutely no future possibility for you, but that's not all. The expectations you had of life, so many things you wanted to do and were planning to do, are terminated suddenly. For example, Suzu has a talent for drawing pictures, but she loses her right hand in a bomb explosion. Similar things can happen to people. Men are drafted and forced to wound and kill others, as has happened to so many. When babies are born, they have a bright future full of possibilities in front of them, but war wipes that all away.

Ochi: The German philosopher Heidegger described death as "the impossibility of further possibility." He also said that motivating oneself toward future possibility is the existential way of living. I also think that war indeed destroys future possibility.

Hiroshima from a global perspective

Katabuchi: I have heard that Hiroshima University is promoting remarkable initiatives as a university of peace. I would like to know more about such programs.

Ochi: At Hiroshima University, since we want our students to set aside some time to reflect on peace, we require them, as part of their liberal arts

education, to take at least one course from among some 30 peace-related courses, which cover subjects such as atomic bombing, war, poverty, and the environment, and to visit a monument such as the Hiroshima Peace Memorial Museum and write a report. We also organize a Peace Lecture Marathon, to which ambassadors and heads of state are invited as speakers. In this event, we had the Lithuanian prime minister talk about the country's history

and the Baltic Way, the famous human chain. We are also preparing a program in which we will invite international students to Hiroshima for about two weeks around the anniversary of the atomic bombing. To finance this program of communicating messages of peace, we established a foundation through crowdfunding, and we produced brochures, for which we asked the actor YOSHINAGA Sayuri to write a message. We are planning to work on this program more actively once the COVID-19 crisis subsides. Hiroshima University is also accepting students with disabilities from foreign universities, including Changchun University in China. We consider this to be a peace initiative in the broad sense of the term. We believe it is important to pass on our mission as a peace university to future generations.

Katabuchi: That's wonderful. I hope to see Hiroshima University achieve great things in the future

Ochi: Before concluding our talk, please tell us what you expect from Hiroshima and its people.

Katabuchi: In Hiroshima, you can personally feel the effects of and learn about the atomic bombing. Some time ago, the preservation and utilization of the Hiroshima Army Clothing Depot were debated. Regarding historical monuments in the world, such as the pyramids and the Sphinx, are people discussing how they should be utilized? In Hiroshima, there are historical monuments of great importance. The Atomic Bomb Dome is one such monument, and so is the Army Clothing Depot. They don't have to be utilized. They should just be preserved as they are, and I think it is better that way for future generations. In the central area of Hiroshima, you feel there are very few old buildings and objects, but, if you look carefully, you notice old gravestones being reused once again as gravestones; a public lavatory built before the war that withstood the atomic bombing is still standing and being used on the bank of the Honkawa River; and so forth. The people of Hiroshima have the privilege of noticing these things. Noticing them means noticing the continuity between today's townscape and the townscape of 76 years ago and also before the atomic bombing. I would really appreciate it if the people of Hiroshima were able to use their imagination in this way more actively.

Ochi: Thank you very much for your precious insights, and thank you for this talk, held online due to the COVID-19 pandemic.



Mr. Katabuchi giving a talk to students during the Hiroshima University Peace Project, titled "Peace from the Perspective of Art."



Set of mukôzuke (sashimi receptacles) with radish sprouts design in overglaze enamel, silver decoration (The 8th Modern Tea Ceremony

(The 8th Modern Tea Ceremony Ceramics Exposition, TOKI Oribe First Prize, 2015) Professor School of Education Graduate School of Humanities and Social Sciences

IDOGAWA Yutaka

Research interests

Pottery, education in arts and crafts, pottery materials



Exploring traditional pottery techniques and raw materials, and communicating possibilities of expression



Ceramic and porcelain are colored with pigments derived from minerals, such as cobalt for blue, iron for brown, and feldspar for white. Minerals are generated under high pressures and temperatures in the depths of the earth. Pigments made from such minerals withstand the firing temperatures of 1250°C for porcelain and the slightly lower 900°C for ceramics, giving the vivid colors that adom works of pottery.

rt has played a myriad of roles that have changed with the times. Pottery, representing diverse techniques and attitudes founded on traditions engraved in history, has always remained a familiar form of art that has also played a functional role in people's daily lives. Works of pottery are culminations of raw materials, traditional techniques, and the potter's expressiveness, all closely intertwined, and they illuminate and inspire people's daily lives.

Japan has a long history of pottery production, which still continues to develop further, thanks to technical and technological advances. Japanese pottery represents the ever-expanding breadth of expressions that can be made throughout the production process, from the selection of raw materials to firing. Prayers by the ancients took shape as Jomon pottery, whereas the uniquely Japanese art of the tea ceremony gave birth to ceramics of the Azuchi-Momoyama Period. Unceasing efforts by ancient artists have led to modern ceramic art representing diverse styles and forms. At the core of this evolution are the techniques that have been transmitted, improved, and perfected over the years. With this in mind, I study and

analyze ceramic techniques and raw materials of the past and redefine them from a contemporary standpoint to examine the techniques of decorative expression.

Concretely, I am developing a new approach to ceramic expression, starting from the traditional drawing technique with color paints, and developing a new technique by combining it with precious metals such as gold, silver, and platinum. This method is fascinating because it can beautifully combine the typical clearness of ceramic ware with vivid colors. However, since ceramic ware is completed by firing at high temperatures in the kiln, the technique poses various problems, such as pigments detaching from the pot surface and discoloration, due to the different melting points of gold, silver, platinum, paints, and other pigments, and their chemical reactions. I also constantly run into





Prof. Idogawa, an artist and a researcher, says that his ceramic art is supported both by the artistic intuition he has developed through experience and concrete numerical data accumulated over the years.

other difficulties, such as not obtaining the exact color I want or having pots break in the kiln. So, to overcome these problems, I am also trying to develop a method to stabilize pigments that are perfect for firing.

With successful research outcomes, a new expression can be established, and ceramic texture can be enhanced with the nobleness of precious metals and vivid colors. It will be a totally novel decorative technique, which will add a new page to the history of ceramic expression. Tangible results of this research will be communicated to society as works of ceramic art. In the university's studio, we carry out research and education in such a way that one can have a multiplier effect on the other: students and faculty members conduct research together and communicate their research findings through seminars and workshops to younger students and students to come who will lead the future.

(Left) Bowl with silver and overglaze enamel decoration (recipient of the Prince Takamatsu Memorial Prize at the 62nd Japan Traditional Art Crafts Exhibition, 2015)

(Right) Bowl with Calopteryx atrata design in overglaze enamel, silver decoration (selected for the 66th Japan Traditional Art Crafts Exhibition, 2019)

Background photo: Silver powder is an indispensable ingredient for the technique *gindei saiji*, which Prof. Idogawa uses in his ceramic works. The technique involves applying *gindei* (silver paint) made of silver powder and *funori* (seaweed-based glue) all over the surface.

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 Nanodevice and Bio Systems
- Research Institute for Higher Education
- Information Media Center
- Natural Science Center for Basic
 Research and Development
- Morito Institute of Global Higher Education
- Center for the Study of International Cooperation in Education
- Health Service Center

- The Center for Peace
- Environmental Research and
- Management Center
- Hiroshima University Museum
- Beijing Research CenterHiroshima Astrophysical Science
- Institute for Foreign Language Research and Education
- Hiroshima University Archives

Data analysis to establish a research hub for interdisciplinary fusion



This device worn around the arm reads fluctuations in the wearer's heartbeats. Data from the device can visualize the wearer's emotional changes. In other words, it is possible to find out which activity causes what level of stress to the wearer, and hence identify highly stressful tasks at the workplace, for example.

he starting point of my current research is the realization that many societal challenges cannot be overcome if they are undertaken from the standpoint of a single domain. When I was an undergraduate student, I traveled as a backpacker around the world, visiting dozens of countries and regions. After graduation, I visited four continents by boat as part of my youth work for the Cabinet Office and spent more than a year each in Thailand, Canada, and Australia (I lived in Australia for four-and-a-half years). I have many friends outside Japan, and the total number of nationalities of the friends with whom I have lived together for over a year is well over 130. Getting to know all those friends, learning about so many different life experiences, and thinking about them as best as I could, I have come to believe that it is unrealistic to try to find solutions to problems that confront people in society from the viewpoint of a single field of specialization, such as economics, medicine, or engineering. I made the decision to be a researcher in my mid-20s. When I was an intern in an NPO that assisted farmers in the United States, I saw a group of local researchers helping farmers with



In his backpacker days, Prof. Kadoya visited many countries and regions

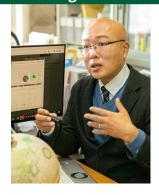
marketing using statistical techniques. I knew then that I wanted to do something like that. It was hard to obtain a full scholarship, which I needed since I had no money, but I decided to get a doctorate outside Japan and become a researcher. I chose Health Economics as my area of specialization because of the importance of designing policy measures to operate healthcare and nursing systems fairly and efficiently in Japan, where population aging was already advancing.

However, that is not the only subject of my research. I am hoping to establish an interdisciplinary research hub where I can propose concrete solutions to society's problems through the fusion of medicine, engineering, and various other domains, taking advantage of the data analysis ability that I developed as an economist.



At the laboratory, the researchers' analysis can lead to policy proposals.

I have always worked on several research projects at the same time. These research projects, including the ones I am currently conducting, are as follows: 1) A study of emotional status and labor productivity using biometric devices procured from a corporate partner; 2) a study of drivers' emotional status and driving safety with cooperation mainly from a taxi company; 3) a study of the mechanism causing uneven distribution of beneficiaries of an economic policy measure involving premium shopping coupon, jointly conducted with the Hiroshima prefectural government and Hiroshima Bank; 4) a joint research in which findings from the research on tactile impression by Prof. KURITA Yuichi (Graduate School of Advanced Science and Engineering) are applied to marketing; 5) a joint research estimating the economic ripple effects of the prevention of urinary incontinence in



Professor School of Economics Graduate School of Humanities and Social Sciences

KADOYA Yoshihiko

Research interests

Healthcare economics, social security, financial literacy

middle-aged and elderly person, with Dr. MAEDA Noriaki (Graduate School of Biomedical and Health Sciences) and others; 6) a joint research with medical scientists and psychologists of other universities on countermeasures against financial frauds; 7) a study of isolation and solitude due to COVID-19; 8) analysis of behavioral change in resistance to anti-COVID 19 vaccinations; and many other exciting interdisciplinary research projects that I cannot describe due to limited space.

I think Hiroshima University is characterized by a generally supportive attitude toward young people who are doing their best. I myself have been afforded many opportunities to translate my research results into concrete policy proposals through international joint research consortia, the Science Council of Japan, and so forth. I intend to continue to carry out research projects that I myself find exciting and that are beneficial to society at the same time. In doing so, I am looking forward to working with like-minded students and researchers from Japan and abroad who specialize in various domains, as well as corporate partners and governmental agencies.



The Hiroshima Institute of Health Economics Research (HiHER), where Prof. Kadoya serves as director and leader, is one of the few Centers of Excellence and cutting-edge international research projects at HU.

supporting world-class research

- Institute of Sport
- HiSIM* Research Center
- The Center for Contemporary India Studies at Hiroshima University
- Research Center for Diversity and Inclusion
- Amphibian Research Center
- Translational Research Center
- Resilience Research Center
- 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

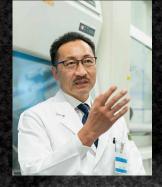
*HISIM (Hiroshima-University STARC IGFET Model) is a transistor model used in circuit design that has been developed by Hiroshima University in collaboration with the Semiconductor Technology Academic Research Center (STARC).

National Joint Usage Facilities

Hiroshima Synchrotron Radiation Center

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 center promotes advanced materials science and emerging interdisciplinary fields using synchrotron radiation.





Professor School of Medicine Department of Infectious Diseases, Hiroshima University Hospital

OHGE Hiroki

Research interests

Infectious diseases, digestive surgery



In September 2020, Prof. Ohge's research team was the first in the world to announce they had confirmed the deactivation effect on the COVID-19 virus of ultraviolet C light with a central wavelength of 222 nanometers (nm), which poses minimal risk to human health. The team's experiment using Care222®, a filtered 222 mm far-UVC excimer lamp manufactured by Ushio, Inc., achieved 99.7% deactivation of the virus after 30 seconds of irradiation.

Demonstrating that UVC light effectively kills bacteria and the COVID-19 virus Hiroshima University is a "dream laboratory" that turns ideas into concrete results



Colony formation compared the effects of irradiation with and without UV light on the growth medium of MRSA (methicillin-resistant Staphylococcus aureus); the right side was not irradiated.

reas around hospital beds and hospital door handles are sometimes covered with pathogenic microorganisms. Invisible and transmissible via tools and human hands to other patients, they can cause nosocomial infections.

So, how do we keep hospital rooms clean? By manually cleaning and wiping the surfaces. Come to think of it, it is strange that no progress has been made in this area for over a century and that hospital rooms are still cleaned solely by hand.

It has been known since olden times that ultraviolet light is effective in eradicating microorganisms. Ultraviolet light was used for disinfection in hospitals for a while, but the practice eventually died out since the efficacy was never clearly established. With recent advances in UV-light-related technologies, I decided to try using it.

In our experiment in the hospital room from which a patient infected with MRSA (methicillin-resistant *Staphylococcus aureus*, a bacterium that causes nosocomial infections) was recently discharged,

we conducted a cultivation test before the room was cleaned, after the room was cleaned manually as usual, and after irradiation by UV light. The test results showed that the MRSA, which had been present in the room in large numbers before cleaning, were reduced by half after manual wiping, and were almost entirely eliminated by UV irradiation. The test not only demonstrated the efficacy of UV irradiation but also indicated that the hospital's usual manual wiping was not as effective a disinfecting method as we had assumed.

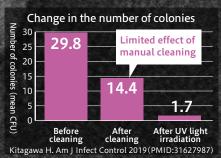
We went on to test with the novel coronavirus, which causes COVID-19, and discovered that the virus was deactivated by 90% after only 10 seconds of UV irradiation and was almost undetectable after 30 seconds of irradiation.

We were able to obtain such intriguing research results thanks to the unique environment of Hiroshima University. Hiroshima University has a hospital with real patients and places where pathogens can be found. Indispensable research partners, such as experts in bacteriology and virology, have their laboratories on the same campus. Moreover, since we carry out research jointly with various companies, we can use the most advanced technologies to assess our research findings.

There are many things in society that pose problems, but no countermeasures have been taken for years, such as manual cleaning of hospital rooms. Clues to finding solutions are often in conversation. Casually talking with

researchers and corporate representatives is extremely stimulating and has helped me generate many ideas. Being able to test your ideas as soon as you come up with them is a significant advantage of working at this university. Experiments do not always go well, but with many other specialists on the campus I can turn to for advice, I know I will find something eventually.

Turning your ideas into concrete results and developing them into something that can serve society is a hugely satisfying process. The research on UV light irradiation started from the hospital, and I expect it to be applicable in a wide range of areas, including public services and home life. Hiroshima University is a laboratory where you can make your dreams come true. Why not consider studying and doing research here together with us to find solutions to everyday problems and inconveniences?



The graph shows how the number of MRSA colonies changes before and after cleaning and after UV light irradiation. It clearly shows that the disinfectant effect of manual cleaning is limited.

Background photo: Electron microscope photo of SARS-CoV-2 (the virus causing COVID-19) taken by HIGASHIURA Akifumi (Assistant Professor, Department of Virology, Graduate School of Biomedical and Health Sciences)

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 a network hub widely open to the world and not exclusively linked to Hiroshima University. NERPS aspires to be an education and research center characterized as follows:

1. A research hub focusing on peace, the global environment, and the Sustainable Development Goals (SDGs) backed by research capabilities of international standards

2. A problem-solving-oriented education and research hub in which researchers in the humanities and social sciences can also participate

3. An education and research hub enabling collaboration by diverse actors, including individuals, NGOs, private businesses, governmental entities, and international organizations

Creating World Top-level



The logo symbolizes NERPS's priority focus on SDG 4 "Quality education" and SDG 16 "Peace, justice and strong institutions," while contributing to all of the 17 SDGs.





Building a world where all mothers can give birth in a quality perinatal care system



As a volunteer examining pregnant women in Tanzania



Professor School of Medicine Graduate School of Biomedical and Health Sciences

SHIMPUKU Yoko

Research interests
Global health nursing



Group antenatal education for pregnant women and families

ave you ever asked your mother or father about what it was like when you were born? Pregnancy and childbirth are events that differ each time they occur. Each woman and each birth represent a unique story. In Japan, it is rare for women to die of pregnancy or childbirth. In Africa, on the other hand, or in Tanzania in particular, where I focus my research, mothers die from pregnancy or childbirth 100 times more likely than Japan. To prevent this tragedy, it is essential to accurately assess maternal and fetal health during antenatal care and provide information to pregnant women and their families so that they can take proper behaviors with sufficient knowledge. It is also important to develop an environment that enables midwives to care for pregnant women in a calm, compassionate manner. Moreover, it is essential for pregnant women to clearly understand what they should do, including making concrete preparations to arrive at a hospital on time, rather than merely providing women with information through one-sided communication.

To improve education for midwives, pregnant women, and their families in Tanzania, I became involved in graduate-level education and conducted research in that country. I also listened to local women and scientifically

analyzed what they had to say. I then developed an educational program based on my findings. And taking the local environments into account, it provided instructions on preparing for pregnancy and childbirth and detecting signs of danger during these events. As a result, I was able to confirm that the women and their families who had received education were better informed and prepared (knowing which health facilities to go to in an emergency, having more frequent antenatal checkups during the pregnancy, deciding in advance which family member would accompany the pregnant woman, and so on), with fewer cases of complications in mothers and newborn babies among them. Encouraged by the positive results of the educational program, I started to think about how it could be expanded nationwide, and then came up with the idea



of developing an educational app given that smartphone use had been rapidly growing in Tanzania. I collaborated with a specialized venture company, and we created an app for midwifery education and an electronic version of the mother and child health handbook to be used by pregnant women. Midwives are very happy with the new educational app and use it actively.

The World Health Organization (WHO) designated the year 2020, the 200th anniversary of Florence Nightingale's birth, as the "International Year of the Nurse and the Midwife" and organized a range of events until June 2021. As one such event, the WHO announced a list of "100 Outstanding Women Nurse and Midwife Leaders" in the world, and I was selected among them as the only Japanese on the list. This recognition of my education and research in Tanzania, which I had carried out amid many hardships while also having a lot of fun, is truly a great honor. To be worthy of this title, I hope to continue my education and research activities to support midwives all over the world.

(Left) Prof. Shimpuku hopes to expand her research to other parts of Africa, including Ethiopia, Egypt, Zambia, and Malawi, focusing on midwifery care. (Right) In this smartphone app being developed, practical information is provided with simple illustrations; for example, information on iron intake during pregnancy includes an explanation about why iron is necessary and how to take in sufficient iron.

Research Centers

Centers of Excellence

HU aims to create world-class research centers on a continuous basis by providing support for research groups conducting active research activities to drive their further development.

- Center for Regenerative Therapy
- Hiroshima Institute of Plate ConvErgence Region Research (HiPeR)
- Hiroshima Institute of Health Economics Research (HiHER)
- Advanced Core for Energetics (HU-ACE)
- Hiroshima Research Center for Healthy Aging (HiHA)
- Chirality Research Center (CResCent)
- Core of Research for Energetic Universe (CORE-U)

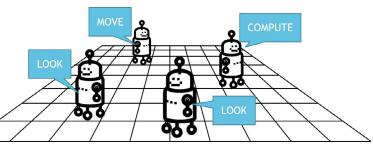
- The Research Center for Animal Science
- The Research Center for Drug Development and Biomarker Discovery
- Research Center for Innovative Diagnosis and Treatment of Depression
- Research Center for Nitrogen Recycling Energy Carrier
- HiSENS Research Center
- Research Center for the Mathematics on Chromatin Live Dynamics
- Research Center for Hepatology and Gastroenterology

Chirality Research Center to elucidate the mystery of right- and left-handedness

Your right and left hands are very similar, yet they are not identical. This property is called chirality. Our research has revealed that chiral magnets made only from right-handed materials are completely different from normal magnets. It is becom-



ing clear that problems with chiral magnets have commonalities with problems in molecule biology and high energy physics. The center is working to elucidate chirality-related problems from a basic science perspective.



Robots: an autonomous distributed robot system that keeps looking, computing, and moving

Associate Professor School of Informatics and Data Science Graduate School of Advanced Science and Engineering

KAMEI Sayaka

Research interests

Distributed algorithms, recommender systems



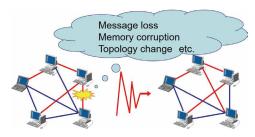
Enabling numerous computers on a network to move and collaborate smoothly

specialize in distributed algorithms and recommender systems. These are, in fact, entirely different subjects, but they have become two main pillars of my research as I have continued my research following my interest.

Distributed algorithms are for distributed systems, which are systems in which several computational entities with communication functions are connected to one another via communication links. The Internet is a distributed system. Computational entities can be computers, such as our personal computers, smartphones and other mobile devices, and robots with communication functions. Distributed algorithms efficiently solve problems on a distributed system comprising many computational entities linked in a network. If you think of large network systems such as the Internet, you can easily see that it is difficult for computational entities in a distributed system to be accurately aware of the configuration of the



overall system at all times. So distributed algorithms only express how computational entities behave



Self-stabilization: a self-stabilizing distributed algorithm resistant to temporary failures

based on their own states and the states of a subset of computational entities directly connected to them. In other words, distributed algorithms must be designed so as to allow computational entities to function well based on local information within the system, consequently causing it to behave as a well-coordinated whole.

As the scale of a system becomes larger, various dynamic changes occur, such as the failure of computational entities and communication links and changes in network topology following the displacement of computational entities. I design logical mechanisms that enable uninterrupted services even during such changes. Anticipating all sorts of situations and repeating the process of trial and

error can be extremely challenging, but the joy I feel when I succeed in theoretical demonstration is the best part of my research.

As for the other pillar of my research, I am looking into the development of recommender systems mainly using textual information, such as SNS and reviews. There are many reviews of products and services posted on the Internet by customers and users, for example, on hotel reservation websites and e-commerce websites. Sometimes it takes a lot of effort to find what really matches what you consider valuable. So it is now necessary to develop systems that recommend reviews to read or products to choose from without the trouble of actually reading the reviews. There is also an enormous amount of information on products, travel destinations, and so forth on Twitter and other social networking sites that might be utilized for recommender systems. I am working on system development with a keen interest in identifying useful pieces of information on such sites and effectively utilizing them.



Sightseeing spot recommender system: system that supports the creation of sightseeing routes by recommending sightseeing spots and routes that connect them

Prof. Kamei initially wished to be a social science teacher. She discovered the pleasure of mathematics in high school and decided to major in engineering in college, partly encourage by her programmer father. She continued her studies to obtain her doctorate, teach in college, and be a researcher. She says, "As a researcher attached to a university, I also teach classes and instruct students. So my original aspiration has partially come true in my profession. I truly believe that you can find your way unexpectedly by daring to try many different things without limiting yourself and your possibilities."

Creating World Top-level Research Centers

Promising Research Initiatives

HU selects and provides priority support to promising research initiatives, which are researcher groups who have the potential to grow into independent world-class research centers (Centers of Excellence).

- International Network on Polyoxometalate Science
- Core of Research for Organelle Diseases
- Catchment Healthy Cycle between urban and rural in Setouchi to Asia, toward the creation (HURI-SATO)
- Center for Next Generation Photovoltaics
- MBR Center
- Hiroshima Drug-Delivery Research Center Using Photoirradiation
- Educational Vision Research Institute
- The Research Core for Plant Science Innovation
 Integrated Research Center for Smart Biosensing
- The Research Center for Japanese Foods

Designing education for future generations Educational Vision Research Institute (EVRI)

Conscious of reform in society and education, knowledge production, and the right to learning, Hiroshima University's Educational Vision Research Institute (EVRI) proposes theories, policies, practices, and environments that support Hiroshima- and EVRI-born nurturing and



learning. Embodying the spirit of "By EVRI For Everyone," it promotes research and development concerning education design.



Associate Professor Hiroshima University Museum SHIMIZU Norio

Animal ecology, museology

Urgent! Protecting Japanese giant salamanders by building a preservation model to save them from extinction

The Japanese giant salamander, a species of salamander native to Japan, amphibians in the world and is found mainly in western Japan (west of Gifu have four fingers each, and its hind legs have five fingers each, somewhat resembling human hands



carry out research on the Japanese giant salamander, Ôsanshô-uo, which is designated as Japan's Special Natural Monument, and its preservation activities in collaboration with universities, local communities, and municipalities. I am also involved in the Higashi Hiroshima Eco-museum campaign, in which we define Ôsanshô-uo as a regional resource (exhibit) and its overall local habitat as an open-air museum, to sustainably protect Ôsanshô-uo and satoyama (mountain foothill grasslands subjected to moderate human intervention over many years for ideal coexistence between humans and nature).

Ôsanshô-uo is a Special Natural Monument, also called a "living national treasure," meaning that it is an animal species that represents Japan. Yet when you actually go to an area where you can find and study these creatures, you find them in a deplorable situation. Human-made concrete banks have divided clusters of individuals, keeping some individuals from breeding and causing others to thin out and die due to lack of food. Some larvae are flushed out into paddy fields. On a national scale, hybrid populations resulting from the introduction of non-native species have been increasing. This is a major threat. Moreover, the increasing frequency and intensity of rainstorms and flooding in recent years have displaced the majority of Ôsanshô-uo from upstream areas. There is no time to waste to save Ôsanshô-uo.

To protect Ôsanshô-uo, it is essential to build and act on a protection model that covers an entire catchment area. It would involve (1) protecting individuals that have been displaced or are found to be malnourished; (2) checking the status of hybridization, registering individuals while recording their sex, and releasing them in streams that are ideal for breeding; and (3) nurturing larvae. These steps must be followed by (4) constructing slopes along artificial streambanks to enable spontaneous movements by Osanshô-uo and (5) verifying the effectiveness of the slopes through studies. For the future, (6) carrying out information-sharing and awareness-raising activities to make the precarious situation of Ôsanshô-uo widely known in society is also important.

All these activities require the understanding and cooperation of local communities. So I am trying to improve society's recognition of the Osanshô-uo issue by conducting and participating in a broad range of activities, such as field trips, public lectures, and visiting expositions held by the university museum; developing merchandise and stamps on the chat app LINE; and publishing educational booklets for elementary schools. I seriously believe that more local people will understand and support our cause when they can visualize the concrete benefits that can come from Osansho-uo by presenting them as a regional resource (tourism asset), and that this will boost the preservation of Ôsanshô-uo. Recently, local companies have begun to offer their support. Many local satoyama are facing the problem of depopulation, but I am hoping that collaboration among universities, local communities,

municipalities, and local companies can actually realize a new model that realizes regional vitalization and natural conservation at the same time as the eco-museum project.

When I work in the field, I can discern many secrets that have been hidden in Great Nature. There is real pleasure in finding them, forming hypotheses about them, and collecting data to demonstrate them. Since my research concerns living things, it does not always progress as I hope, and I have to collect data outdoors, even on rainy and snowy days. But that's great fun! We human beings are inhabitants of the spaceship Earth, one of the numerous species that make up the Earth's ecosystem. As calls for action to realize the SDGs are becoming louder today, it should be clear that learning about other animals and understanding them better is to safeguard our own future as well. To do so, it is important to acquire the practical ability to study them outdoors with your own eyes and touch them with your own hands, rather than just looking at them on your computer screen. For field studies, it is also important to learn how to effectively communicate with local people, which is essential for quality research. I hope to continue my field research in satoyama collaborating with local communities and contributing to the protection and preservation of Ôsanshô-uo.

Prof. Shimizu commenced his research on Osanshō-uo 10 years ago. It began with his encounter with an elderly man who had been studying Ōsanshō-uo independently for 30 years in Toyosaka-cho. Preserving the old man's wishes, Prof. Shimizu vigorously pursues his research and information sharing with the local





(Left) Netsuke ornaments are commercially produced based on ideas generated by children whom Prof. Shimizu met during his visiting lessons. (Center) Educational booklet titled Ösanshö-uo ga iru rashii (We hear there are Ösanshö-uo around here), published by the Higashi Hiroshima City Board of

Education, 100 yen including tax. (Right) Ōsanshō-uo to kurasu tameno 50 no koto (50 things you should know

to live with Ôsanshô-uo), the winner of the Amazon NextPublishing POD Award 2020, is a book combining four-panel comic strips and scientific knowledge to present Ôsanshô-uo in a broad, deep manner.

HU Research Topics 2020-2021

Education and Research Center for Artificial Intelligence and Data Innovation established in October 2020

Contribution to regional innovation through AI and data science

The application of digital and smart technologies are expected to further accelerate in the coming post-COVID-19 society. In anticipation of this trend, Hiroshima University has established the Education and Research Center for Artificial Intelligence and Data Innovation on the Higashi-Senda Campus to promote joint research with, and conduct personnel education for, local



The center is located within the Higashi-Senda Innovative Research Center (Higashi-Senda Campus).

private businesses and governmental agencies. As its name indicates, the center is slated to serve as a base for education and research relating to AI, data science, and ICT that contributes to innovative creation by local entities and regional promotion.

Background photo: A female Ôsanshô-uo sheltered at Ôsanshô-uo-no-yado (Ôsanshô-uo inn) in Toyosaka-cho, Higashi Hiroshima City (75 cm in total length, 4 kg in weight)

Collaboration agreement signed with the National Institute of Special Needs Education in March 2021

For special needs education that truly meets individual needs

Hiroshima University signed an agreement for comprehensive collaboration with the National Institute of Special Needs Education, Japan's only state-run organization dedicated to special needs education. The two institutions will engage in joint research and regional support to propose ways to overcome



ration agreement with the

National Institute of Special

包括連機協定調印式

Needs Education

challenges in special needs education and inclusive education — focusing on the $main streaming \ of \ children \ with \ disabilities -- in \ Western \ Japan. \ They \ aim \ to \ realize$ a special needs education that truly meets the individual educational needs of all children with disabilities.

Educational systems

UNDERGRADUATE EDUCATION

Hiroshima University offers undergraduate education in diverse schools leading students to

HU's original goal-oriented educational system

HIPROSPECTS®

*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 "specified program" designed for the student to develop higher abilities and acquire official qualifications.

Major program

Students work toward a bachelor's degree in this specialization.

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.

Minor program

Students learn other majors

Specified program

Students study specific subjects to fulfill personal goals or acquire official qualifications.

Enrollment Graduation Select a school or department for which to take the entrance examination, based on major program information. Produce a graduation thesis. * Some major programs do not require a graduation thesis. Academic performance in each subjectEvaluation of achievement Evaluation at the end of each semester Reach the goal Set the goal (select bachelor's degree). major program) Study in the major program of the school/ Start of classes department. Evaluation at the end of each semester Register and study in the Acquire the basics/outline of the minor program. The official website of HIPROSPECTS® publishes the contents of the major and minor programs. minor program (voluntary) Register and study in the specified program (voluntary)

https://www.hiroshima-u.ac.jp/prog

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

TOEIC®L&RIP TEST

Measuring English language proficiency by a socially and internationally recognized test

Upon admission and just before graduation, all students take the TOEIC® L&R IP Test. Scores in this socially and internationally recognized test enable the students to check their own English language proficiency. The scores are also used to place students in classes based on their proficiency levels and improve Hiroshima University's English language education.

Basic Courses in University Education

Compulsory courses for all students preparing to engage in intellectual activities at Hiroshima University

Hiroshima University's liberal arts education is categorized into four major areas (Peace Science Courses, Basic Courses in University Education, Common Subjects, and Foundation Courses). The Basic Courses in University Education are compulsory for all students, in which they learn the basics of intellectual activities in college through Introductory Seminar for First-Year Students and Introduction to University Education.

matching students' motivation

Deepening understanding in areas of specialization and cultivating multiple perspectives through interdisciplinary and integrated research POSTGRADUATE EDUCATION

Education and Research Environment

Faculty and facilities for the most advanced research in the world

To be among the world's highest-level research universities, Hiroshima University promotes original and distinctive basic and cutting-edge research. Each graduate school comprises laboratories or units that cover a broad range of research areas. Students can engage in the most advanced research projects under the supervision of diverse and highly qualified faculty members. The graduate schools work closely with affiliated research institutions to realize highly specialized educational and research activities.

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 concerning 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 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 challenges facing today's society by using knowledge and technology as needed.

WISE Program

(Doctoral Program for World-leading Innovation and Smart Education)

Doctoral Program

- 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

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

This program aims to develop human resources who will lead new industrial creation. Taking advantage of Hiroshima University's high levels of specialization and advanced knowledge and industry-academia partnership for human resource development, this program aims to produce outstanding Ph.D. holders who lead the creation and application of new knowledge to create new value for future generations, tackle challenges facing society, and bring about innovation to society.

Frontier Development Program for Genome Editing

(adopted by MEXT in AY 2018)

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)

Leading Graduate Education Programs

Training next-generation leaders for global activities

Hiroshima University has inaugurated the Leading Graduate Education Programs, new trans-graduate school doctoral programs that train future global leaders who create new forms of knowledge beyond the conventional boundaries of academic disciplines and research areas. On the basis of profound specialization cemented at Hiroshima University over the years, the programs offer courses that cultivate students' ability to create, discern, take action and solve problems, and common subjects that form the "Hiroshima University spirit." The students are trained to be leaders capable of taking on global challenges, approaching issues from an original perspective, with discernment based on broad and deep knowledge.

 Phoenix Leader Education Program (Hiroshima Initiative) for Renaissance from Radiation Disaster (adopted by MEXT in AY 2011)

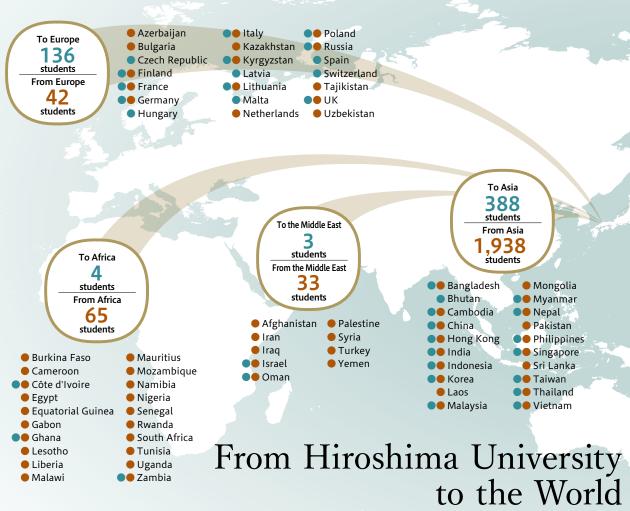
Three transversal courses to train experts in the field of radiation disaster recovery

- 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 by MEXT in AY 2013)

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)

The World Is



A total of 845 students were sent to 44 countries and regions (AY 2019)

To Lithuania through the START+ and HUSA Programs



I visited Lithuania for the first time on the START+ Program, a short study abroad program. I decided to return to Lithuania, to the same university on a full-length study abroad program, because I was enchanted with the local townscape and atmosphere during my first stay. While there, I actively visited places on and off-campus where I could meet and interact with people, and I made many friends of diverse nationalities. I also deepened my understanding of Lithuania by taking a course in the country's history. This experience of doing my very best at doing what I wanted to do is a lifetime treasure for me.

Graduated (in March 2021) from the Department of Law, School of Law

YANAGI Chiaki

To the United States and Germany through the Global Pea Leadership Program



I went to study in the United States during my second year and to Germany during my third year. I had many interesting episodes in Germany, including dancing with strangers with our arms around each other's shoulders at a beer festival, becoming close friends with UN employees, getting into a fight with my landlord after losing my keys… All sorts of experiences while abroad taught me how immature I was and pushed me to keep trying. Hiroshima University offers a whole range of possibilities and opportunities. I would like to encourage all those who are studying for the entrance exam to continue their efforts, looking forward to what awaits them after they pass the exam.

Fourth-year student, Department of Integrated Arts and Sciences, School of Integrated Arts and Sciences

HIROSE Eitaro

Your Campus

To North America

students

From North America

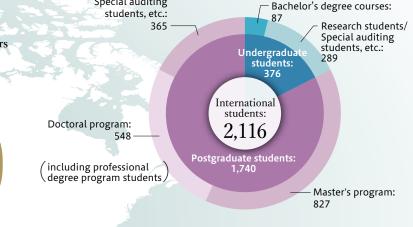
20

students

At Hiroshima University, the whole world is your campus. As an international education and research center, 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.

Canada

USA







Research students/

Special auditing

From the World to Hiroshima University

A total of 2,116 students from 71 countries and regions are studying at HU (as of November 1, 2019)

From Malawi to HU,
where people enthusiastic
about making the world
a better place gather
from all over the world

Studying at Hiroshima University has been the most satisfactory experience for me. Through numerous initiatives, HU has created an excellent environment for both international and Japanese students. At HU, a wide variety of programs, workshops, and club activities are held. The university attracts a diverse group of people from all over the world, who are enthusiastic about the common goal of making the world a better place. HU encourages and motivates you to cultivate yourself and your intellect and character.

Third-year doctoral student, Department of Integrated Sciences for Life, Graduate School of Integrated Sciences for Life

Rowland Maganizo Kamanga (Malawi)

From Indonesia to HU, interacting with Japanese students and learning about Japanese culture, in addition to doing my research



I was a doctoral student in the Department of Transportation and Environmental Systems of the Graduate School of Engineering. At Hiroshima University, I was able to learn a lot about Japanese culture and society, in addition to pursuing my own research. HU provides international students with many opportunities to interact with Japanese students and learn about Japanese culture through cross-cultural exchange programs, as well as introducing their home countries and their cultures and traditions. Why not seriously consider studying at HU and enjoy such meaningful exchanges?

Completed (in March 2021) Doctoral course in the Department of Transportation and Environmental Systems in the Graduate School of Engineering

Septia Hardy Sujiatanti (Indonesia)

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
- 2 Students highly motivated to pursue, create, and develop knowledge
- 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

Kyushu region -

Open to high school students, working adults, and senior citizens

students

Others

Total

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

28 students

2,407 students

Candidates are evaluated mainly in relation to their February-Term academic abilities in subjects covered in higher secondary school that are necessary to receive university education. **General Entrance** Written tests constitute the main part. The final pass/fail **Examination** decision is made based on the results of the Common Test March-Term for University Admissions and the university's specific academic examination. Candidates are evaluated with focus on their scholastic without Common Test for \ Type I (University Admissions interest, motivation, and basic academic abilities in a combination of several test methods, such as essay writing, written examination, interview, skill performance, and oral presentation. In this examination method, **Type II** $\left(\begin{array}{c} \text{with Common Test for} \\ \text{University Admissions} \end{array}\right)$ candidates can show their individuality and specific skills. (Hikari Kagayaki) Entrance Examination Hiroshima University Splendo **International Baccalaureate** This method is designed to accept students with diverse Comprehensive learning backgrounds, including International Baccalaure-ate Diploma holders (including those expected to receive holders, and mature applicants, Selection the diploma), working adults, and those capable of enrolling in English courses (IGS). **IGS** entrance examination Hiroshima University has an entrance examination for Phoenix Entrance Examination senior citizens, thereby responding to society's needs for (For senior citizens) lifelong learning. Candidates are evaluated in a multifaceted and comprehensive manner. Their academic abilities in a broad range Selection by of subjects, their extracurricular activities in senior high School Recommendation School school, and other achievements are assessed via their application documents and an interview. Recommendation-A "Furusato quota" is set up for applicants from Hiroshima Selection by Recommendation for the Type Selection Prefecture for the purpose of developing future medical Department of Medicine, School of Medicine professionals who will engage in local community health ("Furusato quota") care services. Screening is conducted based on the Examination for Selection for University Admission for International Students (EJU), designated official English proficiency tests, entrance examinations held by Hiroshima University, and the application documents. International Students Chubu Hokkaido region Chugoku Kinki region 37 **Newly Admitted Students by** 227 region 348 students students **Senior High School Location** 994 Tohoku region students students Students with proven academic ability and rich individuality • Kanto region gather together from all over Japan. 88

Shikoku region

210

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

Hiroshima University offers various programs that constitute an integrated system of support for career development for undergraduate and postgraduate students and young researchers.

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

Support Programs for Students Preparing for Job Searching

- ■Employment search guidance and seminar
 ■Job search support tour
- Distribution of handbooks on employment search Career development and job search counseling
- Support through the orientation and employment search system (via the student information portal MOMIJI)

Human Resource Development Support Programs for Young Researchers

- Practical Program for career and skill development
- Career development counseling for doctorate holders and candidates
- Core IT system, HIRAKU-PF (Young Researchers' Portfolio)

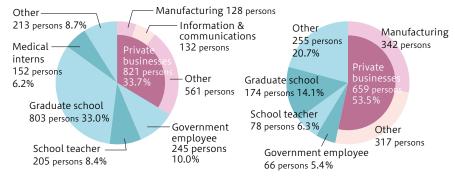
Employment Status

(Undergraduate School 1,271 jobfinders / Graduate School* 803 jobfinders in AY 2020)

* 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 (usually graduate students) of this "Learning Support Counter" assist other students with their education and learning-related questions, problems, and concerns. They also offer useful advice, including study skills for liberal arts education (English, Physics, Chemistry, and Mathematics). The staff also organize gatherings for new 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 2020, ALP has produced 2,243 Accessibility Leaders at 21 universities, including HU, three corporations, and two government agencies in Japan.

Health Service Center

Healthcare professionals provide physical and mental health consulting services, medical check-ups, and first aid.

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

(Private sector) Micron Memory Japan, G.K.; Mazda Motor Corporation; The Hiroshima Bank Ltd.; The Chugoku Electric Power Co., Inc.; Nippon Telegraph and Telephone West Corporation; NEC Solution Innovators, Ltd.; Daikin Industries, Ltd.; Mitsubishi Electric Corporation; Panasonic Corporation; Tokio Marine & Nichido Fire Insurance Co., Ltd.; Kubota Corporation; Kyushu Electric Power Co., Inc.; Honda Motor Co., Ltd.; Hitachi, Ltd.; Nitori Co., Ltd.; Lixil Corporation

(Public sector) Hiroshima Prefecture; Hiroshima City; Hiroshima, Regional Taxation Bureau; Chugoku Bureau of Economy, Trade and Industry; Chugoku Regional Development Bureau; Hiroshima Labor Bureau; Chugoku Local Finance Bureau

(Teaching posts) Hiroshima Prefectural Board of Education; Hiroshima City Board of Education; Fukuoka Prefectural Board of Education; Aichi Prefectural Board of Education; Ehime Prefectural Board of Education; Hyogo 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 UniversityPhoenix Scholarship Program
- Hiroshima UniversitySplendor Scholarship Program
- 2. Tuition fee assistance for graduate students with academic excellence
- Hiroshima UniversityExcellent 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.

A University Open to Society,

Progressing Together with Society

Hiroshima University's Collaborative Research and Other Collaborative Endeavors with Corporate and **Governmental Partners Have Resulted in Various** Technologies and Products.

Responding to wide-ranging society/ industry needs as a research university

> Collaborative Research **Sponsored** Research

er of new projects implemented in AY 2020 (including projects not generating research expenses)

Products Born from Research Collaboration

Setokomachi

(high-grade cake containing hassaku orange) Nishikido Corporation

Research has confirmed that hassaku oranges are rich in Vitamin C and dietary fibers. This Japanese-style cake is made of hassaku orange jam wrapped in rice-based

It has a refined sweetness mixed well with slight bitterness.

Researcher

Professor Emeritus HIRATA Toshifumi Professor YANAKA Norivuki

(Graduate School of Integrated Sciences for Life)



Conducting a range of support projects

Venture Business Startup Support

companies (cumulative) (as of April 1, 2021)

(Products Born from Research Collaboration)

Etak Antimicrobial Spray α

Eisai Co. Ltd.

This is an antimicrobial spray whose principal ingredient is Etak®, a long-acting antimicrobial agent developed at Hiroshima University. You can repel viruses and bacteria by spraying this spray on tables, clothes, etc. The antimicrobial component is bound to the spray area, providing an antimicrobial effect that lasts not just immediately after spraying but for one week. Due to its strong binding power, the effect remains even after wiping with a damp cloth.

Researcher Professor NIKAWA Hiroki

(Graduate School of Biomedical and Health Sciences)



Operating on-campus research bases jointly with corporate partners

Collaborative Research Laboratory

laboratories



Advanced Technologies for Assisting Humans

Prosthetics restoring mobility to disabled hands Researcher

The production of computer-operated prosthetics is underway. The computer instantaneously captures electric signals from the brain and translates them into hand movements. The use of a 3D printer reduces production time and cost.

Professor TSUJI Toshio

(Graduate School of Advanced Science and Engineering)

Enhancing research capabilities through organizational collaboration

Comprehensive Research Agreements

agreements



(Advanced Technologies for Assisting Humans)

Practical proposals of highly accessible learning methods adapted to human characteristics

With a combined use of widely accessible devices and software, learning methods can be adapted to human characteristics, instead of human learners adapting themselves to learning methods. This is the practical solution that Prof. Ujima at the Center for Special Needs Education Research and Practice makes to elementary, secondary and tertiary students across Japan for introduction in their daily lives and school work.

Researcher

Associate Professor UJIMA Kazuhito

(Graduate School of Humanities and Social Sciences)

(Products Born from $\mathsf{Research}$ Collaboration)

MYFLORA

Nomura Dairy Products Co., Ltd.

MYFLORA is a new "fermented food," developed based on research conducted at Hiroshima University. This fermented lactic acid bacteria extract contains plant-derived lactic acid bacteria that reach the intestines alive, Lactobacillus plantarum. Since L. plantarum helps balance the intestinal flora, you can keep your intestines clean by drinking a glass of the extract every day.

Researcher

Professor Emeritus
SUGIYAMA Masanori

(Graduate School of Biomedical and Health Sciences)



Opening on-campus research centers jointly with corporate partners

Center for Collaborative Research with External Organizations

research centers (as of April 1, 2021)



Supporting industrial development with accumulated academic knowledge and information

- ●Technical Consultation ●Collaborative Research
- Hiroshima University's Industry-Academia-Government-Partnership Network

HU has established an "Industry-Academia Collaboration Consultation Desk" to receive inquiries and provide consultation for companies regarding their technical problems or collaborative research and development projects. The Hiroshima University's Industry-Academia-Government-Partnership Network is working to strengthen services to local industries through training programs, research grants, and in-house lectures.

Products Born from Research Collaboration

Altan NA Hand Soap

Altan Co., Ltd.

This hand soap, containing persimmon tannin extract, keeps your hands clean. The smooth and creamy lather will thoroughly wash out the stains from your hands.

(Researcher)

Professor SHIMAMOTO Tadashi

(Graduate School of Integrated Sciences for Life)

Professor SAKAGUCHI Takemasa

(Graduate School of Biomedical and Health Sciences)



Major Programs
Conducted in
Industry-Academia-Government
and Community Collaboration

Digitalizing manufacturing to promote community-level innovation

Digital Monozukuri (Manufacturing) Education and Research Center

To respond to the need for digitalizing manufacturing, an imminent challenge facing local communities, the center is engaged in a broad range of R&D and human resource development relating to model-based materials research, the creation of smart control and production processes, and so forth. The center also aims to construct a full-fledged academia-industry collaboration system to realize community-level innovation.

Elucidating KANSEI using neuroscience A new academia-industry-government collaborative program

Center of KANSEI Innovation

Working in collaboration with many private businesses, universities, and research institutions, the center endeavors, by applying the latest findings of neuroscience, to develop Brain-Emotion Interfaces (BEIs) that connect people to people and people to things with KANSEI, toward the goal of realizing a spiritually rich society. The BEI technology is expected to visualize and quantify KANSEI such as excitement, liveliness, admiration, and the like, which have been considered nearly impossible to objectively evaluate. Such research findings will then be applied to the development of products and services that better respond to human and personal needs and sensibilities. The BEI technology will then revolutionize society in many diverse areas, including food, clothing, housing, mobility, education, and medicine.

Contributing to the realization of the SDGs through industry-academia collaboration in "Bio DX"

Japan Science and Technology Agency (JST) Program for Open Innovation Platform for Industry-Academia Co-creation Hiroshima-based Industry-Academia Co-creation Center for Bio x Digital Transformation ("Bio DX") to build the world's most advanced bio-economy society

To overcome societal challenges, such as new infectious diseases, food shortages, and carbon emission reduction, Hiroshima University promotes industry-academic co-creation based on the concept of Bio x Digital Transformation ("Bio DX"), which draws out the maximum potential of biological functions. This project is ultimately aimed at building an innovative ecosystem for a bio-economy society that contributes to the achievement of the SDGs.

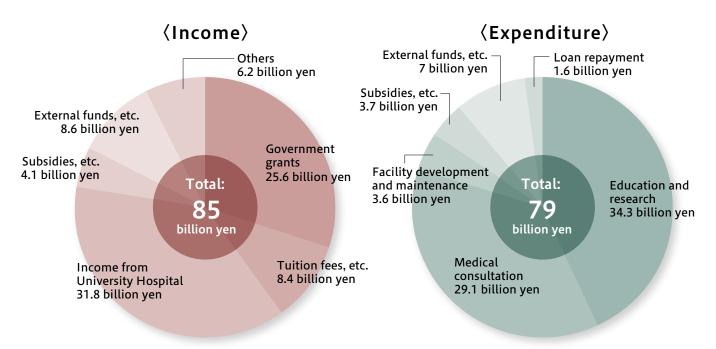
Tackling synergistic torrential rainfall-induced disasters, which are intensifying due to climate change

Resilience Research Center

The 2018 Western Japan heavy rainfall disaster (successive heavy downpours in southwestern Japan in July 2018) caused heavy damage to the local social infrastructure, including housing, water supply systems and roads, due to widespread mudslides, sediment flow, and floods, claiming over 200 lives. While raising funds through various means, including crowdfunding, the Resilience Research Center works to elucidate the mechanisms of disasters. The center is committed to supporting disaster-resilient community building through human resource development and collaboration with the national and local governments, private businesses, and local residents.

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 2020)



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 + 75 year anniversary" of Hiroshima University).

Established 75 years after Hakushima School, the predecessor to Hiroshima University, the university will celebrate its 75th anniversary in 2024. Accordingly, the university has set up a fund for uplifting Hiroshima University and energizing Hiroshima's local communities for its "75 + 75 year anniversary." By doing so, Hiroshima University will enhance support projects for social contribution, education and research environment improvement, and research activities, in addition to existing projects for student support and international exchange.

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

Number of beneficiaries (AY 2008-2021)

students

Objective 2 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

Number of beneficiaries (AY 2010-2020)

students

Objective S 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 2011-2020)

1,843 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 2 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.



The 1st "The Wisdom from World-Renowned Researchers" (March 7, 2016)

Sir John Gurdon

Professor, Wellcome Trust/Cancer Research UK Gurdon Institute, University of Cambridge, UK

The 2012 Nobel Prize in Physiology or Medicine

The 1st "The Wisdom from World-Renowned Researchers

Dr. Shinya Yamanaka Director, Center for iPS Cell Research and Application, Kyoto University, Japan The 2012 Nobel Prize in Physiology or Medicine

The 2nd "The Wisdom from World-Renowned Researchers" (November 29, 2016)

Dr. Takaaki Kajita Director, Institute for Cosmic Ray Research, University of Distinguished University Professor, University of Tokyo, Japar

The 2015 Nobel Prize in Physics 🚜

● The 3rd "The Wisdom from World-Renowned Researchers" (April 5, 2017) #The 2001 "The Wisdom from World-Renowned Researchers" in Tokyo (January 9, 2019) Nobel Prize in

Physiology or Sir Paul Nurse Medicine Director, Francis Crick Institute, UK Source : Fiona Hanson / AP Images

The 86th Hiroshima University Lecture Meeting (March 27, 2018)

> Dr. Muhammad Yunus Founder, The Grameen Bank

The 2006 Nobel Peace Prize



 Commemorative Lecture Conference for the Establishment of the Schoo
of Informatics and Data Science and the Department of Integrated Globa The 2016 Nobel Prize in Physiology or

Dr. Yoshinori Ohsumi Honorary Professor, Tokyo Institute of Technology's Institute of Innovative Res

The 4th "The Wisdom from World-Renowned Researchers" (March 11, 2019) Dr. Hiroshi Amano Professor, Institute of Materials and Systems for Sustainability, Nagoya University, Japan

The 2014 Nobel Prize in Physics

The 2018

Medicine

Commemorative Lecture Conference for the Establishment of the Graduate School of Integrated Sciences for Life and the Graduate School of Biomedical and Health Sciences (July 20, 2019)

Dr. Tasuku Honjo

Nobel Prize in Physiology or Medicine Director, the Kyoto University CCII
Deputy Director-General and Distinguished Professor, Kyoto University Institute for Advanced Study

 Commemorative Lecture Conference for the Establishment of the Graduate School of Humanities and Social Sciences and the Graduate School of Advanced Science and Engineering (July 2, 2020) Dr. Akira Yoshino Honorary Fellow, Asahi Kasei Corp.

The 2019 Nobel Prize in Chemistry



● The 5th "Wisdom from World-Renowned Researchers (September 25, 2021)

Dr. Harvey J. Alter Scientist Emeritus, National Institute of Health, U.S.
© Nobel Prize Outreach. Photo: Joy Asico The 2020 Nobel Prize in Physiology or Medicine

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 Chancellor, University of Hyogo



Dr. IKEGAYA Yuji Professor, Faculty of Pharmaceutical Sciences, The University of Tokyo



Mr. IKEDA Koji Chairman, The Hiroshima Bank



Mr. ITO Toyo Architect



Mr. INOUE Kosei All-Japan Men's Judo Team



Mr. UEDA Sōkei Grandmaster, Ueda Sōko Tradition of Japanese Tea Ceremony



Ms. OYAMADA Hiroko Novelist (awardee of the 150th Akutagawa Award), Graduated School of Letters, Hiroshima University



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

« Lecturers in AY 2017-2021 »

Nestlé Japan Ltd.



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



Mr. TAKAOKA Kozo President and CEO,



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



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



Mr. NINOMIYA Seijyun Sports journalist



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



Mr. HIROKANE Kenshi Manga artist



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.



Mr. MAEKAWA Masao Advisor, Mayekawa Mfg. Co., Ltd.



Mr. MATSUI Kazumi Mayor, The City of Hiroshima



Mr. Morley Robertson International journalist



Dr. MOGI Kenichiro Neuroscientist



Mr. YANO Hirotake Chairman, Daiso Sangyo Co., Ltd.



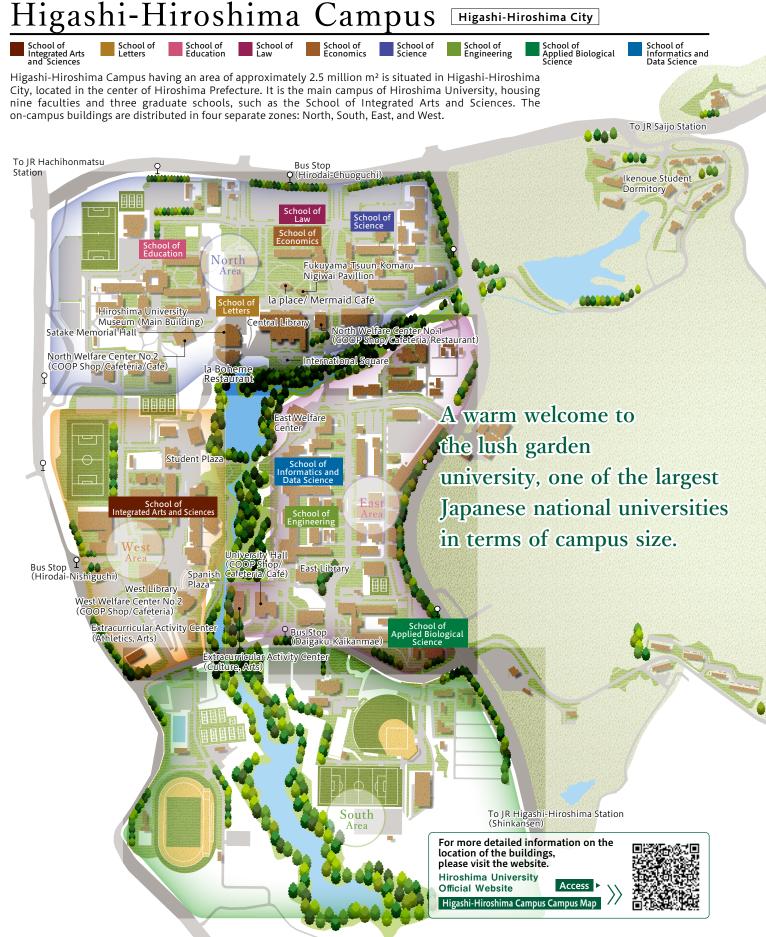
Mr. YAMASAKA Tetsuro President, Balcom Co., Ltd. Graduated School of Education, Hiroshima University

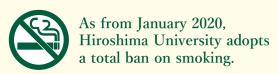


Mr. YUZAKI Hidehiko Governor, Hiroshima Prefecture

(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.



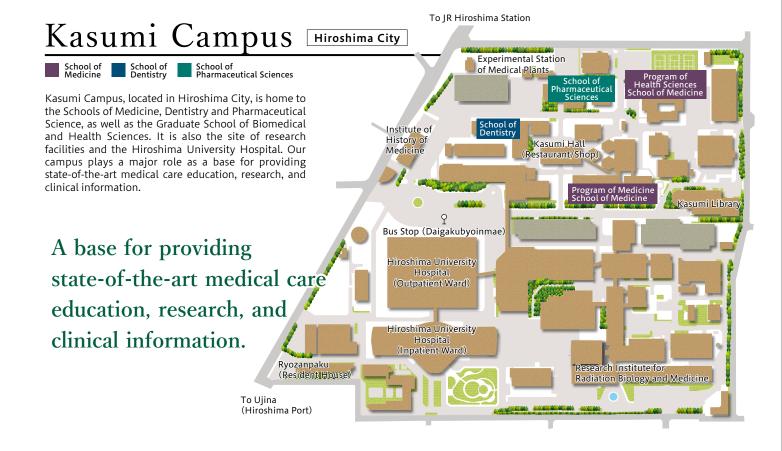


In order to prevent second-hand smoking and promote anti-smoking education, all three campuses of Hiroshima University have been smoke-free from January 2020.

Visit the link for more information!

https://www.hiroshima-u.ac.jp en/about/initiatives/kinen





The Center for Peace School of Law Evening Program School of Economics Evening Program School of Economics Evening Program Legal Service Center Restaurant/Shop Memorial Monument for the Victims of the Atomic Bomb Garden Higashi-Senda Library Higashi-Senda Library

Higashi-Senda Campus Hiroshima City

School of Law Evening Program

School of Economics Evening Program

Higashi-Senda Campus is situated in Hiroshima City, and is in the area where Hiroshima University was located prior to the merger and relocation to Higashi-Hiroshima City. In addition to the School of Law and the School of Economics evening programs, liberal arts education for students from the School of Medicine, Dentistry, and Pharmaceutical Sciences has been offered in the new Higashi-Senda Innovative Research Center since 2016.

A major learning hub where the history of Hiroshima University overflows.

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.

the third to seventh floors. The seventh-floor houses exists well equipped for multiple purposes, including div

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.



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.



Libraries

The Hiroshima University Library comprises five libraries and holds approximately 3.46 million volumes in total, one of the largest university collections in Japan. The Central Library is equipped with an automated retrieval system, in which books can be accessed by computer operation. A collection of school textbooks, from the Edo period to the present, and many other valuable materials are also stored at the libraries.

Facility Outline (as of 2021)

Library	Surface area	No. of seats for reading	No. of volumes	Main categories in the collection		
Central Library	Higashi-Hiroshima	16,053m 992 seats Approx. 2.29 million Books and periodicals in the fields of eother human and social sciences, and		Books and periodicals in the fields of education, other human and social sciences, and natural sciences		
East Library		1,745m²	29 seats	Approx. 0.27 million	Books and periodicals in the fields of engineering, biology, and other natural sciences	
West Library	ibrary		882 seats	Approx. 0.65 million	General books, study guides, periodicals in all subjects and books on natural sciences	
Kasumi Library	Kasumi Campus	2,382m²	385 seats	Approx. 0.19 million	Books and periodicals in the fields of medicine, dentistry, pharmacology, and public health	
Higashi-Senda Library	Higashi-Senda Campus	685m²	81 seats	Approx. 0.06 million	Books and periodicals in 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 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.





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



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

For further information





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 commity events. This building was constructed with donations from Satake Corporation, other companies, and HU graduates.



Faculty Club (Higashi-Hiroshima Campus)

The Faculty Club was established for several purposes, including to facilitate academic exchange and thereby contribute to educational research within the university, to promote academic and cultural exchange between the university and the community, and to promote friendship and interaction among faculty members, students and alumni. The Faculty Club features various facilities, including a restaurant, a reception hall, conference rooms and lodging facilities.



Hiroshima University $Museum \hspace{0.2cm} \hspace{0$

Hiroshima University Museum is an Eco-museum. In the area, there is the main museum, six Satellite Museums, and the Discovery Trail (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. The Satellite Museums are situated at six locations: the Archaeological Research Section, the School of Applied Biological Science, the School of Science, the School of Letters, the Central Library, and the Amphibian Research Center.



Discovery Trail (Hakken-no-komichi)

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.

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



Here, liberal arts classes are held for students in medical and related schools based in Kasumi Campus. The center is also designed to house joint educational and research projects in collaboration with other universities, industries and governments.

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.

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.

Hiroshima University $Hospital \ \langle {\tt Kasumi\ Campus} \rangle$

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 and Sanfrecce Hiroshima F.C. In active cooperation 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.



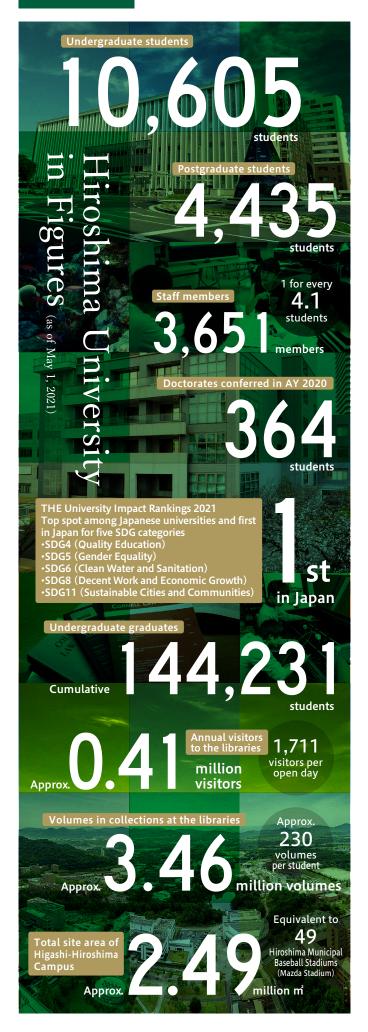
Response to the COVID-19 Pandemic



Concerning clinical care, the Hiroshima University Hospital has eight beds reserved for patients in the most severe conditions, whose treatment includes the use of the extracorporeal membrane oxygenation (ECMO) system. Following the spread of the infection, the hospital secured 28 beds for patients with moderate symptoms to provide all-out medical attention. The hospital has also played an active role in assuring vaccinations by dispatching healthcare professionals, including dentists, and taking charge of the operation of collective

vaccination centers for the elderly. In terms of research activities, in 2020, Hiroshima University Hospital was the only institution whose research projects were selected for funding as "technological development projects to combat viral and other infectious diseases" by the Japan Agency for Medical Research and Development (AMED) in all categories (demonstration, improvement, and verification of efficacy).





History

Hiroshima University has nine schools as its forerunners, which is the largest number in Japan. Firstly, seven schools were integrated, namely Hiroshima Higher Normal School (established in 1902), Hiroshima University of Literature and Science (established in 1929), Hiroshima Higher Technical School (formerly Hiroshima High Institute of Technology, established in 1920), Hiroshima High School (established in 1923), Hiroshima Women's Higher Normal School (formerly Hiroshima Girls' High School, established in 1887), Hiroshima Normal School (formerly Hakushima School, established in 1874), and 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). 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

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

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



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

2010

Establishment of the Student Plaza

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)
 The 70th anniversary

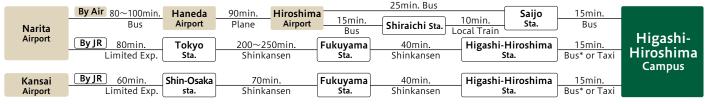
Establishment of graduate schools (Graduate School of Humanities and Social Sciences, Graduate School of Advanced Science and Engineering)

2021

Opening of Hiroshima University Phoenix International Center MIRAI CREA



Access to Higashi-Hiroshima Campus



* HU-bound bus service operated only on weekday mornings

Access to Kasumi Campus

Narita Airport	Bus Haneda Airport		90min. Hiroshima Plane Airport		45min. Bus 15min. Shiraichi Sta. 50min. Local Train		Hiroshima Sta.	15min. Bus		
Airport	By JR 80min. Limited Exp.	Tokyo Sta.			250min Shinkansen			Hiroshima Sta.	15min. Bus	Kasumi Campus
Kansai Airport	By JR 60min. Limited Exp.		Shin-Osa sta.	Shin-Osaka 90min. sta. Shinkansen				Hiroshima Sta.	15min. Bus	

Access to Higashi-Senda Campus

Narita Airport	By Air 80~100min. Bus By JR 80min. Limited Exp.	Haneda Airport Tokyo Sta.		roshima Airport	15min. Bus 250min Shinkansei	45min. Bus Shiraichi Sta.	50min. Local Train	Hiroshima Sta. Hiroshima Sta.	30min. Tram 30min. Tram	Higashi- Senda
Kansai Airport	By JR 60min. Limited Exp.		Shin-Osaka sta.	Shin-Osaka 90min. sta. Shinkansen			Hiroshima Sta.	30min. Tram	Campus	

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



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