University Topiccs

Kochi Medical School Hospital New Hospital Ward (Second Ward) Completed

Capable of Handling Emergency Patient Transport Disaster-Resistant Hospital

The new ward of the Kochi Medical School Hospital has been completed with seven stories above ground (18.514㎡) and a heliport on the roof to support the helicopter emergency ambulance service.
The seismically safe and base-isolated building has a ramp leading to the 7th floor and a backup emergency electric power generator installed on the roof as countermeasures against large-scale disasters. In addition, the new hospital ward provides state-of-the-art medical facilities for the acute-phase and prenatal patients and improved level of comfort and convenience to the inpatients by increasing the number of single rooms and leaving sufficient space around each bed.

Fully-equipped Heliport

Conclusion of a Partnership Agreement with AMDA Group

Toward Further Development of Collaborative Relationships

Kochi University concluded an agreement with the AMDA (The Association of Medical Doctors of Asia) Group regarding coordination and cooperation among relevant organs on April 14. The AMDA Group is a non-profit organization based in Okayama City that provides emergency humanitarian relief activities mainly in the medical, health and hygiene fields in times of disasters and disputes at home and abroad. With the conclusion of the comprehensive agreement encompassing all faculties of the university, a more broad-ranging partnership in all areas, including medical care, public health, nature and environment, culture and education, has become possible. In addition, lectures by the people involved in AMDA are invited in the regular course subjects.

A scene of overseas relief activities conducted by a doctor of Medical School

An overseas clinic

Assistant Professor Yasunori Nagano Received the Bone and Joint Decade/Japan Award

Promoting Check-ups in Cooperation with the Region and Children

The Three-Generation Check-up, an awareness activity promoted by Assistant Professor Yasunori Nagano of the Rehabilitation Department, Kochi Medical School Hospital and staff of the Department of Environmental Medicine at Kochi Medical School in cooperation with Kuroshio Town in Kochi Prefecture, won the Bone and Joint Decade/Japan Award.
The prestigious award has been given by the Japan Association for Bone and Joint Decade as part of the worldwide public awareness campaign of the Bone and Joint Decade sanctioned by the World Health Organization (WHO) to businesses and activities for their unique and excellent initiatives in improving musculoskeletal health.

The Football Club Will Participate in the All Japan University Soccer Tournament.

15th Consecutive (25th Overall) Victory in Shikoku

Kochi University Football Club won the championship in the Shikoku University Football Tournament, earning its 15th consecutive title and 25th overall. The team will represent Shikoku and participate in the Prime Minister Cup Japan 39th All University Soccer Tournament, on schedule to take place in the Kansai district on August 7.

Chorus Group to Participate in the National Choral Competition

The Kochi University Chorus Group received the Gold Prize in the University Youth Division of the Shikoku Branch Competition in of the 68th National Choral Competition (sponsored by the Japan Choral Association, Shikoku Branch and the Asahi Shimbun Company) held in the Sunport Hall Takamatsu (Takamatsu City) on August 29 and was selected as the representative of Shikoku.
As a result, the group will participate in the National Competition scheduled to take place in Nagasaki Brick Hall (Nagasaki City) on November 21.

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Kochi University Annual Bulletin 2014 - 2015

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Innovation of Faculties and Departments, Kochi University

Reform of Learning Systems

Starting with the establishment of the Faculty of Regional Collaboration, Kochi University is about to undergo major innovations. What kind of changes will the university make and what kind of future will the university foresee? We will feature the future image of Kochi University.

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Niyodogawa-cho Kochi pref

Reform of Learning Systems

Toward the development of individuals who will play significant roles in the local communities

Starting this academic year (AY), the Faculties and Departments of Kochi University, except the Medical School, will undergo major restructuring until 2017 AY. In April 2015, the Faculty of Regional Collaboration was established as the first new faculty of Kochi University in 38 years, and the Faculty of Education has also been restructured to the current structure.
We interviewed Professor Kimio Fukami, Director and Vice President for Education:
"There used to be two Divisions in the Faculty of Education: the Teacher Training Division and the Lifelong Education Division. The new Faculty of Education has only the former and focuses on teacher training." It offers integrated teacher training for elementary school, junior high school education, and special education. We have also established the Preschool Education Course this academic year that offers courses that require students to obtain a nursery teacher's license and class-1 kindergarten teacher's licenses.

Creating Faculties and Departments with unique features of Kochi University

Kochi University will restructure the Faculty of Agriculture and the Faculty of Humanities and Economics in 2016 AY and the Faculty of Science in 2017AY.
The Faculty of Agriculture will be reorganized into the Faculty of Agriculture and Marine Science.
"Kochi Prefecture is bordered by high mountains of over 2,000 meters to the north, and, with the narrow strip of the plain field in between, it faces the Pacific Ocean. The transition from the coast to the abyssal Nankai Trough sitting below 3,000 meters occurs very suddenly. The distance between the mountain region and the abyssal sea field is only several dozen kilometers, which is a unique geographical feature in Japan. This innovation will transform the Faculty of Agriculture into a new faculty that offers integrative research and education on all these matters." Students will be expected to learn integrative ocean management, i.e., to know, tap, manage and maintain the ocean.
The Faculty of Humanities and Economics will be restructured to the Faculty of Humanities and Social Sciences.
"We will foster students under the new academic concept of "Humanities and Social Sciences" by integrating human sciences and social sciences. The restructuring will offer a wide range of educational possibilities."
The integration of the current three departments will enable our students not only to specialize in one of the three new courses, the Humanity Science Course, the International Society Course and the Social Science Course, but also to broaden their multi-disciplinary knowledge by taking the Humanities and Social Sciences Platform subjects.
The Faculty of Science is scheduled to be reorganized in 2017 AY.
"The major change will be the establishment of the department which will deal with areas of global environment and disaster prevention. It will promote education and research on scientific mechanisms of disasters as well as engineering for disaster prevention and mitigation."
Kochi University is at the crossroads of major innovations.
"Of course, the innovation will not be limited to the restructurings mentioned above. There are two key words for Kochi University's educational goal. One is "education of integrated liberal arts" which enables our students not only to master their own field of expertise but also to gain knowledge and learning perspectives across the various disciplines. The other is "education of regional collaboration" which enables our students to offer research results obtained at Kochi University to the local communities as well as learn from the local communities. These are the two principles, on the basis of which Kochi University continues to innovate itself."

Director of Education,
Vice President,
Kochi University
Kimio Fukami

Restructuring of Kochi University's Educational Organization

Undergraduate Programs (Six Faculties; Annual Enrollment: 1,075 students)

Policies of Restructuring : Strengthening of functions, playing the core role for regional regeneration, realization of integrated liberal arts education and strengthening of development of professional human resources

(2015 AY Onwards)

Faculty of Regional Collaboration	Faculty of Education	Faculty of Humanities and Social Sciences	Faculty of Science	Tosa Innovative Human Development Programs	Medical School	Faculty of Agriculture and Marine Science
(Annual Enrollment: 60 students)	(Annual Enrollment:130 students)	(Annual Enrollment: 275 students)	(Annual Enrollme nt: 240 students)	(Annual Enrollment: 25 students *included number)	(Annual Enrollment: 170 students)	(Annual Enrollment: 200 students)
Department : ●Regional Collaboration	Department : ●Teacher Training Division	Department : ●Humanities and Social Sciences	Departments: ●Natural Science ●Applied Science	Departments : ●Green Science Education Program ●International Education Program ●Life and Environment Education Program ●Sports Education Program	Departments : ●Medical Course ●Nursing Course	Departments : ●Agriculture, Bioresource and Environmental Science ●Agricultural Chemistry ●Marine Resource Science
Newly Established in 2015 AY	Reorganized in 2015 AY	To be reorganized in 2016 AY	To be reorgan ized in 2017 AY			To be reorganized in 2016 AY

※The content is subject to change. The names of faculties and departments are all provisional.

Learn with the Community, Grow with the Region

The Faculty of Regional Collaboration, Kick off!

**The Faculty of Regional Collaboration has just been established as Japan's first of its kind, aiming to provide solutions to regional issues in collaboration with the local communities.
It is attracting considerable attention nationwide.**

A new style of learning starts, that enables the students, the university and the local communities to grow together. An interview with Professor Kensaku Ueda, the Dean of the Faculty follows.

Could you please explain the features of the Faculty of Regional Collaboration?

The basic principle of the Faculty is to solve regional issues by creating a form of education for students and local residents to learn together. While the students can reap the benefit of achieving their own growth, the local communities can learn how to solve problems and revitalize the region, and the university and the faculty members can conduct research and make contributions to the region. To that end, the three parties need to cooperate in their studies and act together to develop solutions for the regional issues.

What kinds of regions are selected as the sites for learning activities?
Currently, there are six major learning fields. While some of them intend to revitalize the region by collaborating with local enterprises, others intend to develop communities in cooperation with the local residents. We also plan to develop and cultivate local specialties in collaboration with the antenna shops, where Kochi's local products are sold.

What do you think of Kochi Prefecture as a field for learning?
It is said that Kochi's regional issues, including that of population aging, are 10 years ahead of the rest of the country. Kochi also faces the big problem of disaster-prevention. These two issues are both challenging and rewarding. Kochi people's open spirit to welcome outsiders makes the place ideal for working in partnership.

Develop human resources with collaborative practical skills and business sense in the local communities

How will the 67 newly-enrolled students proceed with their studies for four years?
The curriculum is designed on the principles of practical activities. The students proceed with the four stages of PDCA (Plan-Do-Check-Act) for regional collaboration during the four-year program. Students are divided into teams and advance their activities for four years. The theme for the 1st-year students is Regional Understanding. They will gain understanding of the current regional issues by interacting with local residents. Through the activities, they are expected to develop communication skills to be able to talk with the local residents and learn to produce the best performance as a team. Students take such courses as regional sociology and theory of industry and social methodology of social research. From the 2nd to 3rd years, the students are required to plan (P) measures for regional revitalization, conduct (D) them, check (C) the outcome, and act (A) by creating reform measures. We will ask local people to get involved in the PDCA cycle from the planning stage. We plan to have our students discuss and share regional issues with local people, carry out the measures and evaluate the outcome together.

What kind of people do you aim to foster in the Faculty of Regional Collaboration?
We aim to foster leaders who can manage the collaboration of local industries, and individuals who can organize collaborative structures and work with a view towards promoting local industries. I hope that the students will acquire both collaborative practical skills and business sense. We aim to foster industry collaborative leaders, administrative collaborative leaders, life and culture collaborative leaders and "6th" sector leaders (entrepreneurs).

The majority of the faculty students are very active. They are so enthusiastic, they can't wait to do something. As I suggested to students they take the initiative in student activities in the Faculty, immediately they are planning to create a faculty uniform, etc.

Dean of the Faculty of Regional Collaboration
Specializes in non-profit organizations and public-utilities.
Kensaku Ueda

SUIJI

Collaborative Consortium of Six Universities
Service Learning Program

Students of Shikoku and Indonesia experience intensive cultural exchanges in agricultural mountain and fishing villages.

What is SUIJI?

"SUIJI" stands for "Six University Initiative Japan Indonesia." It is a consortium of six universities, established in 2011, comprising three Indonesian universities (Gadjah Mada University, Bogor Agricultural University, and Hasanuddin University) and three universities in Shikoku (Ehime University, Kagawa University, and Kochi University). We conduct cooperative education and research to contribute to solution of global-scale environmental problems.

Extremely "GLOCAL" program, unlike any other in Japan

Kochi University offers a unique program conducted in collaboration with other universities in Japan and Indonesia. It is a Service Learning Program (practical training for students to learn by contributing to regional issues) for the undergraduate students within a consortium called SUIJI. We interviewed Professor Kazuhiro Ohtani, director of the SUIJI Promotion Office on their activities.

"The Service Learning Program (SUIJI-SLP) aims to train international servant leaders who make unselfish contributions to regional society. In the service learning in Japan, students from Indonesia take part in various activities with Japanese students while staying in Shikoku. In the service learning in Indonesia, on the other hand, the Japanese students visit agricultural mountain and fishing villages of Indonesia."

This is the third year since the program started. The number of students participating in the program has been increasing year by year with 74 taking part in Japan and 40 in Indonesia this academic year (a total of 114).

Students stay in unique regions in Shikoku and Indonesia and take the initiative in activities

The learning sites in Japan are three in Kochi Prefecture (Muroto City, Otsuki Town, and Yasuda Town), four in Ehime Prefecture, and one in Kagawa Prefecture. Each faces some issues and their main goal is to revitalize the communities. On the other hand, Indonesia offers five learning sites with some special features, such as suburban areas of cities, remote farm villages deep in the mountains, and isolated islands. Both Japan and Indonesia programs offer a basic training course and the duration of stay in each country ranges from two to three weeks. In the programs, students have heated discussions every evening on how they can contribute to the region.

Fostering leaders who can view the diversity of the world from multiple angles

SUIJI-SLP offers students of both humanities and science across borders of universities and countries the opportunity to have exchanges and learn together, which they can't experience in regular classes.

"I believe that Japanese students realize that common practices in Japan are not necessarily common practices for other countries. It is very important for young people to realize the diversity and gain multifaceted perspectives."

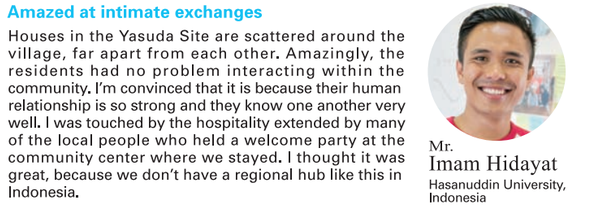
I often visit Southeast Asia, including Indonesia. I enjoy conducting field research rather than staying in the laboratory.

Professor, Kuroshio Science Unit,
Multidisciplinary Science Cluster,
Division of Education and Research
Specializes in natural products organic chemistry and ethopharmacology.

Kazuhiro Ohtani

Two-Way Short-Term Exchanges

The students from six universities in Shikoku and Indonesia spend time together in agricultural mountain and fishing villages in both countries, work on social issues, and gain valuable learning experiences.



We interviewed the students who participated in Service Learning at the Yasuda Site

SUIJI allows me to experience personal growth.

While strolling through a vast area, I visited with local people, and listened to their stories. I also had a chance to help them make country-style steamed bean-jam buns and country-style sushi. What impressed me the most through the interaction was local elderly people's hospitality and smiles. I had expected that learning in the SUIJI program and getting to know an unknown world would help me grow. Now I have a feeling that I have made a little growth.

Miss
Haruka Okamoto
Department of Agriculture, Faculty of Agriculture

Impressed by the comfortable and stress-free lifestyle

Sustainable society is a key theme in the Faculty of Agriculture, but my understanding is still superficial. I participated in the SUIJI program to gain more insight into the concept by directly putting myself into the community. I was very impressed not only by the rich natural environment but also by the local people's comfortable and stress-free life style. I realized that we city people have a fast-paced hectic life and act in a self-centered manner, but on the other hand that local people were so broad-minded and had a large capacity for tolerance.

Miss
Yuho Wakashita
Department of Agriculture, Faculty of Agriculture

Amazed at intimate exchanges

Houses in the Yasuda Site are scattered around the village, far apart from each other. Amazingly, the residents had no problem interacting within the community. I'm convinced that it is because their human relationship is so strong and they know one another very well. I was touched by the hospitality extended by many of the local people who held a welcome party at the community center where we stayed. I thought it was great, because we don't have a regional hub like this in Indonesia.

Mr.
Imam Hidayat
Hasanuddin University, Indonesia

Towards employment of children with developmental disabilities

Children Learn in Confectionary Open!

This small confectionary opened in October 2014 within the Special Needs Education School on the campus of Kochi University.
The name is Confectionary Hocco Sweets.
The sweets are made by students with intellectual disabilities.

Inspired at the practical job training site

Hocco Sweets produces traditional German confectionery, rolled cakes, and other sweets. The bright white-based store is furnished with several seats, providing the space as a café, where drinks are also served. As soon as they open, local residents and students of Kochi University flock here to enjoy the sweets made by children.

Hocco Sweets is located in the Special Needs Education School affiliated with the Faculty of Education. It provides intellectually disabled students with regular education equivalent to elementary, junior high and senior high schools as well as necessary knowledge and skills to cope with their disabilities.

"Hocco Sweets is a site for job training for the students of the senior high school section. It was jointly established by this school and the Research Project on Kochi Developmental Disabilities, a collaboration led by Kochi University and Kochi Prefecture. The Project aims to create an employment model and to establish teaching methods. Our school aims to provide our students the facility to learn confectionery manufacturing in the field of food processing as well as to receive job training for employment" says the Vice Principal Toshihide Yamasaki.

The Special Needs Education School has always provided job training as part of the curriculum to help the students to acquire the skills needed for employment and work.

"The most significant improvement brought by the opening of Hocco Sweets is that students can actually witness customers buying, eating and evaluating the sweets they have made. They hear them say, "Delicious!" This kind of positive evaluation inspires and motivates the students to make better sweets."

Research is under way on teaching methods appropriate for the characteristics of disabilities

"One of the characteristics of children attending our school is that they are very meticulous and methodical. The recipes for German sweets are characterized by meticulous procedures, and I thought the German sweets would be appropriate for our students. What we're more particular about than anything else is sanitary control and quality management."

Currently, studies are underway regarding what kind of work is appropriate for the students and how to teach and guide them. It is the role of this school to make good use of the characteristics of respective children. In order to help them make a smooth shift to the next step after graduation, this project is expected to be a new effort toward the future of these students.

For a little while after the opening of Hocco Sweets, children attending the elementary school section were watching their seniors make sweets through the glass windows. They were so adorable.

Vice Principal,
Special Needs Education School
Affiliated to the Faculty of Education
Toshihide Yamasaki

A student making a Burgunder Bretzel

Professors and two of their teams at the Center for Advanced Marine Core Research

Research Results Highly Evaluated in the World

Published in a Scientific Journal

Published in Nature Communications (electronic version, 29 June 2015) by Nature Publishing Group

Research results on the fresh water supply from the Bering Sea to the Arctic Sea

The research teams discovered the possible causes for amplification of the global cooling phenomenon of about 3.3 million years ago

Professor Ikehara and his teams conducted the Integrated Ocean Drilling Program (IODP), performed geochemical analysis of the microfossils, lipids of plant plankton and clastic materials contained in the marine sediment of the Bering Sea, and clarified the possibility for the first time that the development of the Alaskan Mountain Glaciers had started at least 4.2 million years ago. They also revealed that the subsequent increase in the amount of melting ice during summer associated with the expansion of the Alaskan Mountain Glaciers might have promoted fresh water afflux into the Arctic Sea and amplified the global cooling phenomenon which started from around 3.3 million years ago.

Sampling work from the drilled core (Kochi University)

Professor at the Center for Advanced Marine Core Research

Minoru Ikehara

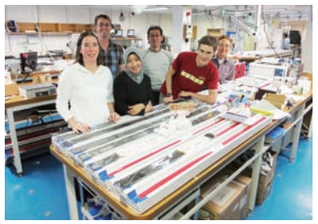
Impressed by the NHK Special program The Miracle Planet, he aspired to becoming a professional in the field of earth science.
He is also a great ocean traveler who has conquered the seven seas in the world.

Published in Science (online version, 24 July 2015)

Research results of the drilling survey by the scientific deep sea drilling vessel "Chikyu" off the coast of Hachinohe City in Aomori

Discovery of the sub-seafloor microbial community in the Earth's deepest area and the limits of the biosphere

The research team led by Professor Murayama et al. analyzed core samples of the sub-seafloor sediments from as far as 2,466 meters below the seafloor off the coast of Hachinohe City in Aomori Prefecture. As a result, they found out that the microbial communities contained in the sediment were extremely small, no more than 100 cells per one cubic centimeter (1 cm3), suggesting that they may have reached the limits of biosphere in the deepest sub-seafloor area through scientific ocean drilling for the first time in the world. Meanwhile, in the coalbeds with rich nutritional sources that exist approximately 2,000 meters below the seafloor, the number of cells showed a tendency to increase by a factor of 100. The research team discovered that the specialized microbial communities similar to the terrestrial microbial ecosystem (microbial communities in forest foils, sources of coals) existed in the strata formed and buried under the seafloor more than 20 million years ago. They performed cultivation of the coalbed samples using a down-flow hanging sponge reactor and succeeded in cultivating anaerobic microbial communities, which produced natural gas (methane), in the deepest sub seafloor in the world.



Scientific Deep Sea Drilling Vessel "Chikyu" © JAMSTEC

I have spent more than 1,500 days on board a research vessel out in the ocean. There is always a new discovery every time I set out on a research voyage. That's why I'm excited about the ocean.

Professor at the Center for Advanced Marine Core Research

Masashi Murayama

Voices from Students

Colorful Company

Students learn how to provide support to children

Serving as big brothers and sisters, more approachable than teachers

It is the library at a local elementary school. Children gather here after school. Once a week, the After-School Learning Program takes place. The tutors are members of a student organization in the Faculty of Education, Colorful Company. They help children with their investigative learning and motivate them with suggestions that arouse their interest.
Some members of the group were interviewed on the reasons for participation. One of them said: "I want to be an elementary school teacher, and I want to have prior experience in connecting with children." Another said: "I participated in the program in the hope of experiencing an actual education site. By interacting with children, I am convinced that becoming a teacher is my destiny."

Student organization
Colorful Company

The objective of the organization is mentoring school children in an after-school study room at an elementary school in Kochi City. The current membership is 25 members (including graduate students).

I wanted to make the most of my exchange semester and really improve my Japanese so I decided to attend Kochi University

The teachers and support staff at Kochi University were very helpful and I never once felt troubled as they were always available to help. Many events for exchange students to enjoy were organised, for example a trip to a nearby town to go rice planting, which was a very unique experience. One of my favourite memories of my time there was in the Sunday markets, I met a man selling potatoes. I mentioned I was studying at Kochi University and with a big smile he gave me a bag of potatoes and told me to spread Japanese culture and language all over the world. This is indicative of the warmth of the people of Kochi, and the strength of the Tosa spirit.

Mr.
Jordan Moeser
The University of Queensland

Student Exchanges
The University of Queensland

My dream was to study abroad since I was in junior high school

When I started school in the University of Queensland I was really surprised in the amount of the readings and the assignments. This experience gave me good influence and habit to study every day. Of course I have enjoyed outside of the school as well. I had experienced working at a retail shop in Brisbane, working with people from many countries and sharing cultures and languages. Also I went to Great Barrier Reef, Gold Coast, Sunshine Coast, and Sydney. This country is famous for beautiful beaches and weather is nice, similar climate to Kochi. I was very lucky to have the opportunity to study abroad in the University of Queensland it has become one of my precious memories and I have gained confidence in me. I would like to thank my parents, friends and teachers for the support.

Miss
Emi Omori
Tosa Innovative Human Development Programs

Certified as a Kochi University- launched Venture Company

Graduate students at Kochi University started a marine farming business

Kochi University established the Kochi University-launched Venture Certification System in March 2014 as the first of its kind introduced by national universities in Shikoku. Certified companies are allowed to use some facilities of Kochi University as a rental laboratory or office, and use the address of Kochi University for their commercial registration. Kochi University certified three corporations in October 2014. One of them is a general incorporated association named Umiji (Sea Route), started by some graduate students.

General Incorporated Association
Umiji Established / March 2013 Representative / Jun Hachiya

Contents of business

- Onshore farming of green laver (Enteromorpha prolifera) and abalone, using deep ocean water
- Production and sales of seedlings
- Production, processing and sales of marine products
- Management of restaurants

Abalone and green lavers produced by onshore farming

What are the positive things about getting certified as a venture company?

The certification enabled us to receive a subsidy from the Kogin Bank Regional Economy Promotion Foundation.

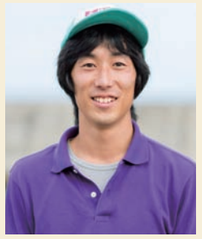
What do you think is rewarding?

I am running a cutting-edge business that hasn't been attempted elsewhere, so I receive considerable support from many organizations, including the local communities and Muroto City.

Tell us about your future outlook.

By studying the seaweed with high-purification ability and establishing methods of cultivating varieties of seaweed, I hope to propose a complex farming mechanism of fish, shellfish and seaweed without polluting the marine environment.

As I belonged to the Laboratory of Seaweed, I've been engaged in research on the physiology and ecology of seaweed in a joint research project with Muroto City. In the meantime, I became the winner of the National Students-Initiated Business Plan Contest . Following that, I made a patent application for the shell color of abalone. Through the results of advanced research on onshore farming methods for a large variety of seaweed conducted over seven years, I obtained the know-how of growing seeds of rare seaweed, and that's why I decided to start a business.



Mr. **Jun Hachiya**
Representative of General Incorporated Association Umiji, Doctoral Course of Kuroshio Science, Graduate School of Integrated Arts and Sciences