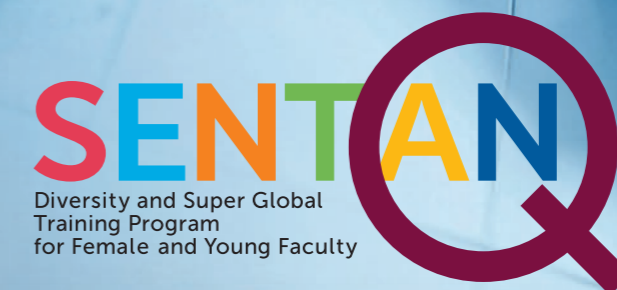


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MEXT Support Program for the Development of Human Resources in Science and Technology  
Initiative for Realizing Diversity in the Research Environment

## Diversity and Super Global Training Program for Female and Young Faculty

# SENTAN-Q Annual Report 2022



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Kyushu University





Diversity and Super Global  
Training Program  
for Female and Young Faculty

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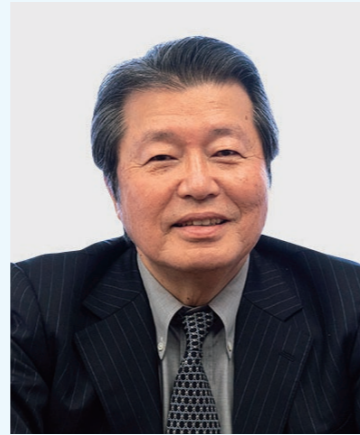
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<https://sentan-q.kyushu-u.ac.jp/en/>



## SENTAN-Q Supervisor

President, Kyushu University

**Tatsuro Ishibashi**



Kyushu University was selected as a Designated National University Corporation in 2021 and based on this, the Kyushu University VISION 2030 was developed. The vision sets out the direction and policy that the university should pursue for 2030. Through initiatives that solve social issues and promote DX (Digital Transformation), Kyushu University strives to contribute not only to education and research but also to social change as a university that drives social change with integrative knowledge.

“Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q)” is a key project for our university that seeks to become a university that drives social change with integrative knowledge. While also ensuring diversity, SENTAN-Q cultivates personnel with research and education skills that meets the highest global standards. Each fiscal year, about 10 trainees are selected from outstanding female and young faculties. They strengthen their research and educational skills to become active in the world’s academic research by two-years training course offered by world’s top-class researchers. SENTAN-Q will aim to accelerate the promotions of successful trainees to higher-ranking and management positions and contribute to the university through building a research and educational environment that will be recognized as truly global.

This year marks the fourth year of SENTAN-Q. 10 people were newly selected as the 4th trainees and the training program commenced in August 2022. Furthermore, the 3rd trainees have entered their 2nd year of the program and are now actively conducting lectures and offering student research guidance at overseas universities. Of the 20 graduates who completed the training program, 15 have been promoted to higher-ranking positions. Some of them have moved onto the international stage and are working with researchers from various countries, utilizing the networks that are developed through SENTAN-Q to conduct international joint research.

Kyushu University will utilize this project and educate outstanding female and young researchers who will lead the future of world’s academic research to appeal their skills to the world. We appreciate your understanding and support of this project.

## SENTAN-Q Implementer

Executive Vice President, Senior Vice President  
Director, Office for Promotion of Gender Equality Kyushu University

**Kenji Iwata**



In October 2022, as Executive Vice President (in charge of Diversity) of Kyushu University, I was appointed to the role of Director of the university’s Office for Promotion of Gender Equality. We are now into the fourth year of “Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q)”, launched in January 2020 to improve the international research and educational capabilities of female and young faculty members, and to elevate them to more senior positions and management roles. As an academic in the Faculty of Humanities at the time of the launch, my impression was that the program would face many hurdles and struggle to succeed. However, once it really got started, many enthusiastic female and young researchers, from the humanities as well as science and medicine, stepped up to join the program and study with remarkable diligence and persistence. (As of this fourth year of the program, a total of 41 trainees have participated.) Over time, I have become more and more convinced that this program is of very high quality. The 20 female and young researchers who have already completed the program are not only helping to fulfill the university’s goals of promoting “research to compete at the highest level in the world” and “international talent circulation,” in accordance with the Kyushu University VISION 2030; they are also serving as valuable leaders in our ongoing efforts to promote diversity. In collaboration with the SENTAN-Q graduates, we will remain committed to promoting diversity in a variety of ways.

## SENTAN-Q Coordinator

Senior Vice President, Distinguished Professor  
Deputy Director, Office for Promotion of Gender Equality Kyushu University

**Kaoru Tamada**



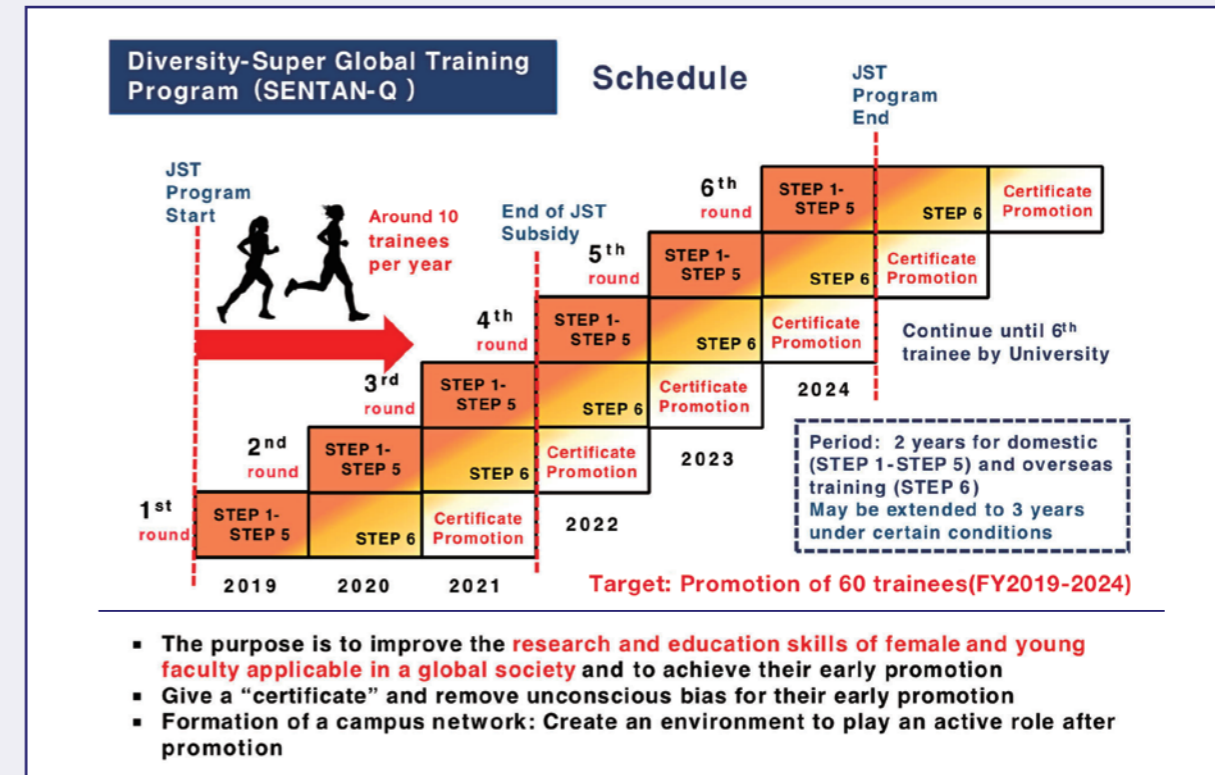
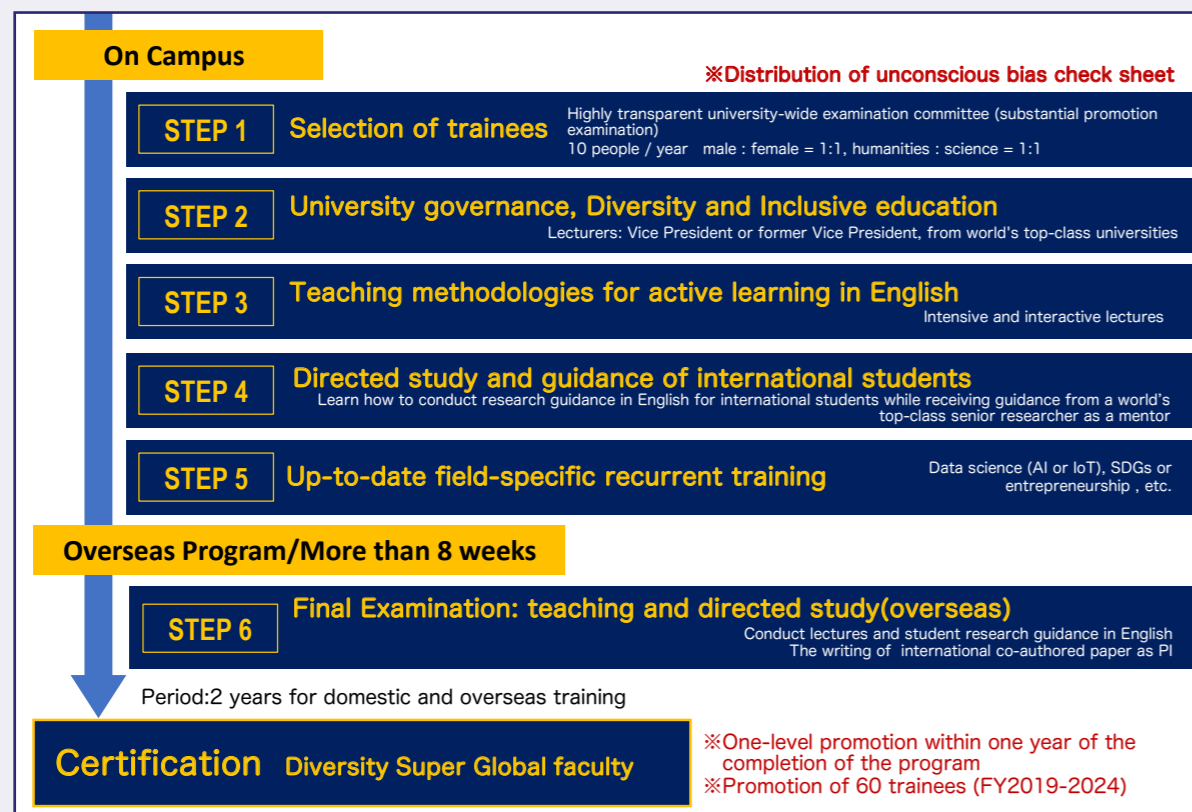
This year, the SENTAN-Q program is in its fourth year. So far, all the 1st and 2nd trainees have successfully graduated the program, including those who extended their training periods due to life events. At the same time, the process for promotion to senior positions is steadily taking place. Congratulations to all the trainees! Although the COVID-19 crisis is not yet completely resolved, overseas travel is almost back to normal now, which means that the STEP 6 overseas training for the 3rd and 4th trainees can now be implemented as planned. Since MEXT’s subsidy period ended last fiscal year, the SENTAN-Q program is now running by its own expense, with warm understanding in the same way as before. We would like to take this opportunity to acknowledge our gratitude to all of university support. This past February, we established the SENTAN-Q Project Fund under the Kyushu University Fund to create a new system to accept donated funds to be used for running the program. We are determined to challenge ourselves more than ever, to ensure that the fruits of the training help to make a positive contribution to global society. In accordance with the motto that “The learning of faculties is for the future of the university, the local community, Japan, and the world,” we shall do our very best together. In fact, we have already heard many reports about the activities of SENTAN-Q graduates. We look forward to your continued cooperation and encouragement to the SENTAN-Q program.

Kyushu University was selected for funding under "Initiative for Realizing Diversity in the Research Environment", MEXT Support Program for the Development of Human Resources in Science and Technology in 2019. The aim of this program is to improve diversity in the research environment by providing female researchers with opportunities for conducting overseas research and encouraging their active participation upon their return to Japan. It also funds the program which accelerate the promotions of female researchers to high-ranking and management positions.

To this end, Kyushu University has launched "Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q)" in 2019. The aim of SENTAN-Q is to provide outstanding female and young faculty members with opportunities to challenge the world's top-class research and education and accelerate their promotions to high-ranking and management positions at the university. Our goal is to create the research and educational environment that will be recognized as truly global and lead the world academic research.

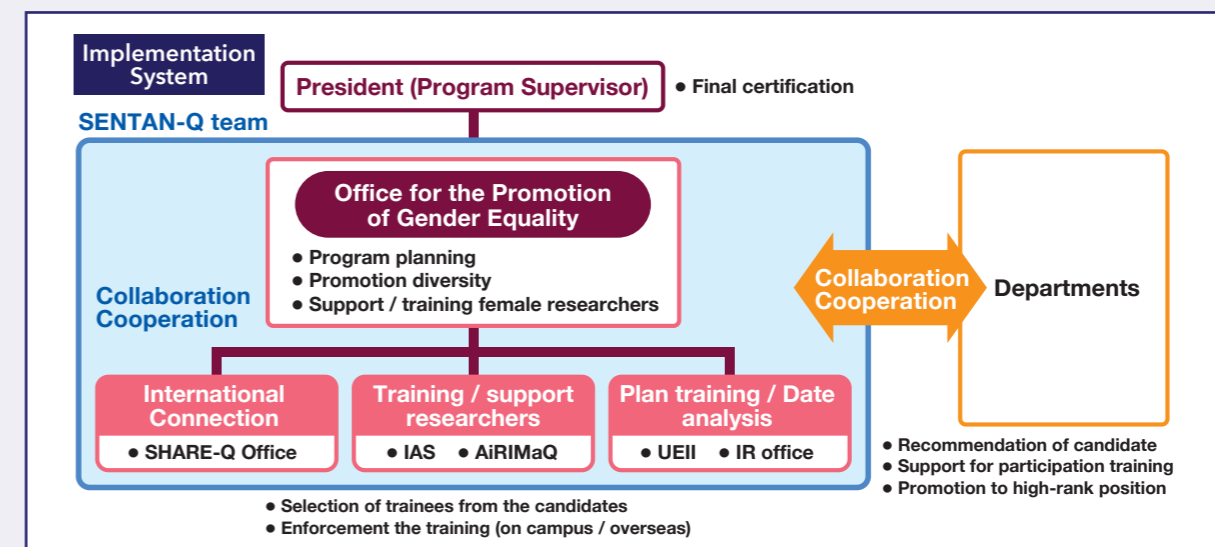
SENTAN-Q consists of STEP1 to STEP6. Trainees are selected through highly transparent screening process from outstanding female and young faculty members, who are recommended by departments and expected to attain promotions within a few years (STEP1). After being selected by university-wide committee, trainees start their two-years program. They will take on campus training from STEP2 to STEP5 then proceed to the final examination as STEP6, which consists of overseas training for more than 8 weeks (please see the appendix for further details).

## SENTAN-Q 6 STEPS



Trainees who reach the targeted learning level will receive certificates. A tenured position or a one-level promotion will also be given. The program lasts two years including the overseas training. However, we can adjust the duration to accommodate maternity, child-rearing, or nursing care needs. SENTAN-Q will aim to produce 60 trainees through 6 application rounds. Information about the program's progress as well as trainees' accomplishments are published in Polymorfia (ISSN 2424-1113), the journal of the Office for Promotion of Gender Equality, Kyushu University. We will also work with the All Nippon Diversity Network to share our findings and insights across Japan.

SENTAN-Q is being implemented with the cooperation of the entire university, as part of administrative reforms centered around "young, women and foreign researchers" as set forth in Kyushu University's Mid-term Objectives and Mid-term Plan and the National University Administration Reform Facilitation Project etc.







The program has been conducted both on-site and online depending on COVID-19 related situations in FY2022. The 4th trainees were newly selected in July and started their two-years program from STEP1 to STEP5. The 3rd trainees completed STEP4 in July and started STEP5 and STEP6. The 2nd trainees successfully completed their 2 years program of SENTAN-Q after being certified of the completion of STEP6 in July. The event calendar of FY2022 is shown in the p.7.

**STEP1 Selection of 4th term trainees**

The nomination process for the 4th trainees took place between March 7 (Mon) and May 16 (Mon). After the screening by CV and interview, 10 trainees were selected. The Kick-Off Meeting was held on July 28 (Thu). The 4th trainees started their 2 years training from August.

**STEP2 University governance, diversity and inclusive education (on campus)**



**5<sup>th</sup> term trainees**

<b>Lecture 1 Online</b>	<p><b>Date:</b> August 5 (Fri) from 8:30 to 10:00 (JST)  <b>Lecturer:</b> Prof. Sean C. Garrick                  Vice Chancellor for Diversity, Equity, and Inclusion                  The University of Illinois Urbana-Champaign  <b>Theme:</b> A vision for equity, diversity and inclusion</p> 
<b>Lecture 2 Online</b>	<p><b>Date:</b> September 29 (Thu) from 8:30 to 10:00 (JST)  <b>Lecturer:</b> Prof. Sandra A. Brown                  Former Vice Chancellor for Research                  University of California San Diego  <b>Theme:</b> UC San Diego Overview of Research</p> 

**STEP3 Teaching methodologies for active learning in English (on campus)**

**4<sup>th</sup> term trainees**

**Lecturer:** Dr. Carolyn Sandoval, Associate Director, Teaching + Learning Commons, UC San Diego  
 Mr. Paul Hadjipieris, Education Specialist, Teaching + Learning Commons, UC San Diego

<b>Lecture 1 Online</b>	<p><b>Date:</b> February 7 (Tue) from 9:00 to 11:00(JST)  <b>Theme:</b> Lecturing for Learning</p> 
<b>Lecture 2 Online</b>	<p><b>Date:</b> March 8 (Wed) from 9:00 to 11:00 (JST)  <b>Theme:</b> Ten-minutes Micro-Teach and Feedback</p> 

**STEP4 Directed study and guidance of international students (on campus)**

Trainees select the overseas mentor for STEP4 themselves. After consulting with overseas mentor, trainees conducted research guidance to international students at Kyushu University for thesis writing. The 3rd trainees made up of 4 females and 7 males, started STEP4 from August 2021 and completed in July 2022 after the submission of international co-authored papers. The 4th trainees started STEP4 from 2022 to 1 year. Trainees can proceed to STEP6 overseas training after being certified of the completion of STEP4. The example of overseas mentor are shown in the Appendix.

**STEP5 Up-to-date field-specific recurrent training (on campus)**

Trainees take STEP5 recurrent training just after starting their SENTAN-Q program. They select two or more courses from their extra-professional fields after consulting with faculty members of Kyushu University as lecturers. Some trainees have submitted reports indicating that STEP5 can help them incorporate new knowledge from different research fields and enhance their research activities. Some of them have also initiated the joint collaborative research with STEP5 lecturers from different research fields. STEP5 can be completed after STEP6 during the two-years program. The example of STEP5 lectures of the 1st trainees are shown in the Appendix.

**STEP6 Teaching and directed study (overseas)**

Overseas training as the final examination of SENTAN-Q. It determines whether the trainees have acquired research and educational skills that meets the highest global standards. The 2nd trainees started STEP6 from August 2021. Due to the COVID-19 related travel restrictions, some part of STEP6 training had to be replaced with online lectures and online research guidance at overseas universities. In July 2022, the 2nd trainees successfully completed STEP6 after the submission of international co-authored paper. One trainee who had been permitted the extension of training period due to life events, completed STEP6 in September. The 3rd trainees started STEP6 and will complete in July 2023.

SENTAN-Q Calendar for FY2022				The 4th trainees	The 3rd trainees	The 2nd trainees	All trainees
Year	Month	Day					
2022	March	7th	Nomination for the 4th trainees opened				
	May	10th	Graduation ceremony for the 1st trainee who was permitted the extension of the program		STEP4		STEP5
		16th	Nomination for the 4th trainees closed				
	June	15th	Screening of the 4th trainees by CV	STEP1		STEP6	
	July	1st	Screening of the 4th trainees by interview				
		28th	Kick-Off Meeting for the 4th trainees held				
		31st	Completion of STEP4 of the 3rd trainees				
			Completion of STEP6 of the 2nd trainees <final exam>				
	August	5th	STEP2 lecture for the 4th trainees <lecture1>	STEP2			
		9th	The completion of STEP4 of the 3rd trainees certified at SENTAN-Q committee				
			The completion of STEP6 of the 2nd trainees certified at SENTAN-Q committee <final exam>			Certification of the completion of SENTAN-Q	
		30th	Guidance of STEP6 for the 3rd trainees	STEP4			
	September	6th	Graduation ceremony held for the 2nd trainees				
		27th	The completion of STEP6 of the 2nd trainee certified after the extension period of 1.5 months			being promoted within one year of the completion of SENTAN-Q	
		29th	STEP2 lecture for the 4th trainees <lecture2>	STEP2			
	October	21th	Pre-course of STEP3 lectures for the 4th trainees provided till Nov. 18		STEP6		
	November	15th	The completion of STEP6 of the 1st trainee certified after the extension period of 10 months				
2023	February	7th	STEP3 lecture for the 4th trainees <lecture1>	STEP3			
	March	1st	Nomination for the 5th trainees opened				
	March	8th	STEP3 lecture for the 4th trainees <lecture2>	STEP3			
		24th	The mid-term program report meeting of SENTAN-Q				

## 1st term Trainees getting promoted after the completion of their SENTAN-Q program

The 1st trainees (10 people) started the SENTAN-Q training in January 2020. They successfully completed two-years training at the end of December 2021 except three trainees who extended their training periods for 3months, 7months, 10months respectively due to their life events. The Graduation Ceremony was held online in February 2022 and trainees were given certifications. Three trainees who extended their training periods were also given the certifications directly from the President after completing the program (in March, July, October respectively 2022). For reference, the program achievements of the 1st trainees are shown in the Appendix.

In principle, trainees who complete all the courses of SENTAN-Q are granted tenured position or one-level promotion internally within one year of the completion of the program. As shown in the table, one of the graduates from the 1st trainees was first promoted in April 2022. Then other 8 graduates were promoted in May, June, September, October, December and January respectively. One graduate who extended the training period for 10 months due to a life event will be promoted within one year of the completion of the program. Therefore, five female professors, three female associate professors and two male associate professors will be bone from the 1st trainees of SENTAN-Q.

Through SENTAN-Q program, the graduates practically acquired the research and educational skills that meet the highest global standards. They also negotiated with overseas researchers and requested mentors themselves to open the way for joint research and overseas lectures. These experiences have greatly helped them gain confidence and enhance the network with overseas researchers to conduct international joint research. Furthermore, they actively carry out the interdisciplinary joint research by applying the new knowledge and personal connections acquired through STEP5 recurrent education.

After the completion of SENTAN-Q, the graduates are being appointed to reasonable positions within faculties. Some of them started to collaborate in organizing the local community forum with other researchers from different research fields. As such, the graduates will continue to grow in the future and are expected to lead the world's academic research.



May 2022, President and Prof. Masuo



January 2023, President and Prof. Yamauchi

Promotion Date

affiliation	Name	Promotion date 2022	Promotion Position
RIAM	Nawo Eguchi	April 1st	Associate Professor
IMI	Ryoko Oishi-Tomiyasu	May 1st	Professor
ISEE	Fumihiko Sassa	June 1st	Associate Professor
Faculty of Design	Yuichiro Nagatsu	June 1st	Associate Professor
Faculty of Social and Cultural Studies	Chisako T.Matsuo <sup>1)</sup>	September 1st	Professor
Faculty of Agriculture	Mako Nakamura	October 1st	Professor
	Hisako Nomura	October 1st	Associate Professor
Faculty of Engineering	Mai Bando	December 1st	Professor
	Rie Wakabayashi <sup>2)</sup>	January 1st	Associate Professor
ISEE	Yukiko Yamauchi <sup>3)</sup>	under adjustment	Professor

Extension of period due to life events 1) 3 months, 2) 7 months, 3) 10 months

## Establishment of SENTAN-Q Project Fund

In January 2023, Kyushu University newly established SENTAN-Q Project Fund as a designated project funds within the framework of the Kyushu University Fund.



### Purpose

SENTAN-Q was selected for funding under “Initiative for Realizing Diversity in the Research Environment”, MEXT Support Program for the Development of Human Resources in Science and Technology in 2019. SENTAN-Q aims to identify and nurture outstanding female and young faculty members to develop their research and educational skills. For the first three years, it was operated with a subsidy from MEXT and the budget of Kyushu University. From 2022, it has been operated solely by the budget of Kyushu University. To further develop the SENTAN-Q program and to ensure its smooth and flexible continuation, Kyushu University established SENTAN-Q Project Fund to call for support widely from outside the university.

### How donates are used

Among 6 STEPs of the SENTAN-Q training, the donates will be used for the cost of inviting overseas lecturers in STEP2 and STEP3, the cost of research guidance of international students in STEP4 and overseas travel expenses in STEP6. Also, support for balancing work and nursing care is important as there are cases in which trainees themselves or spouses of trainees give birth to children during the training period. Therefore, the donates will also be used for supporting research activities during maternity and childcare leave and for accompanying family members to overseas training to expand the scope of financial support which had been difficult to support with university budget.

Period February 2023 ~ July 2026

Donation amount (multiple donations possible)  
 Corporate group : ¥100,000 / unit  
 Individual : ¥ 10,000 / unit  
 (Target amount ¥20 million yen/year)

For details, please refer to the website to see how to dominate.

([https://kikin.kyushu-u.ac.jp/news/view.php?cld=1677&amp;r\\_search=&mode=1&page=1](https://kikin.kyushu-u.ac.jp/news/view.php?cld=1677&amp;r_search=&mode=1&page=1))



Introduction and Request for SENTAN-Q Project Fund is on the end of this report.



## Report of Graduation Ceremony of 2nd term Trainees

The Graduation Ceremony of the 2nd trainees was held online on September 6 (Tue), 2022. The 2nd trainees (10 people) started SENTAN-Q training in August 2020. They successfully completed the two-years program at the end of July 2022 except one trainee who had been permitted the extension of training period (1.5 months) due to his life event.

Due to the COVID-19 infection prevention measures, the 2nd trainees had online interviews for STEP1 and took online lectures for STEP2 and STEP3. Though the Graduation Ceremony had been initially planned to be held on-site, it was changed to online due to the approaching typhoon. Therefore, the 2nd trainees were unable to meet again.

At the Graduation Ceremony, one of the 1st trainees who had extended the training period for seven months also participated. Total 10 trainees made the 3-minutes presentation for their achievements through SENTAN-Q program. After the presentation, the commemorative photo was taken with the Dean of faculties.



Since the Graduation Ceremony was held online, the certification was delivered to the trainees at a later date. But one trainee, who had extended the training period and completed the program in September 2022, were given the certification directly from the President (as shown in the right picture).

Two of the 2nd trainees were promoted before the completion of SENTAN-Q program. However, they completed their two-years program to the end and received the certifications with other trainees.

In November 2022, one of the graduates from the 2nd trainees was first promoted 4 months after the completion of SENTAN-Q in July. By December 2022, total 6 trainees were promoted one level including two aforementioned trainees who had been promoted before the completion of SENTAN-Q training.



October 2022, President and Assoc. Prof. Ohta

## Second term Trainees

### No.1

#### ALBRECHT Ken *Associate Professor*



Affiliation **Institute for Materials Chemistry and Engineering**

Research Field Polymer Chemistry, Materials Chemistry

I have just successfully completed the SENTAN-Q program. The training program for learning about governance and diversity and the training on how to give lectures were very beneficial for me in developing my career. These points are necessary for a teacher or researcher, but in Japanese Universities, it is rare to have an opportunity to learn.

In STEP4 and STEP6, I was able to build a strong relationship with my mentor by teaching international students and writing papers. I could also obtain an international joint research fund with them, and our relationship is continuing. Furthermore, as part of STEP6, I was able to give lectures at 8 universities in 4 countries and build a large network with the host professors. I want to become a hub connecting Asia with Europe and the United States in the near future, and this experience was definitely a good step.

I would like to further advance my education and research by using what I have learned in this wonderful SENTAN-Q program. Finally, I would like to thank the SENTAN-Q office and all the professors involved for providing me with this opportunity.

### No.2

#### FURUTA Michiko *Lecturer*



Affiliation **Faculty of Dental Science**

Research Field Dental Public Health

Looking back on the SENTAN-Q program, I feel that the collaborative studies with overseas researchers in STEP 4 and 6 were very positive experiences for me. As I had no experience of studying abroad and knew few overseas researchers, it was difficult to find a mentor for STEP 4 and 6. However, I was able to develop a new network of researchers by contacting overseas researchers whom I had never met before and conducting the collaborative research with them.

STEP 6 had been allowed to conduct the training remotely due to the spread of COVID-19 infection, but I sincerely wanted to conduct a research overseas. I changed my original plan in the STEP 6 and I had the training program with a prominent researcher in the field of dental epidemiology at National Dental Institute Singapore. I was able to take the training on-site and had face-to-face discussions with many researchers at the training site. I believe that I was able to deepen my friendship with many researchers and have a fruitful training experience because of the on-site training.

Finally, I would like to express my sincere gratitude to all those involved for their support in completing the SENTAN-Q program.



## Second term Trainees

No.3

FUYUNO Miharu *Associate Professor*

Affiliation **Faculty of Design**

Research Field Applied Linguistics, Multimodal Analysis, Corpora



The 2nd term of SENTAN-Q started at the same time as the start of the COVID-19 pandemic, and my training started by coordinating the oversea training with Taipei Tech in parallel with my regular teaching and research duties. I was kindly given the opportunity to co-mentor each other's lab students, after having received a willing consent from a professor at Taipei Tech University to be my mentor. During the training period for STEP6, I was also given the opportunity to deliver specialized subject lectures in English at Taipei Tech. The lecture delivery techniques I learnt in STEP3 were immediately useful in these lectures. What was particularly impressive during the lectures was the students' high level of English communication skills and their active attitudes in discussions and Q&A sessions. I was stimulated by the students' curiosity and the way their eyes lit up as they asked questions. The exchanges during the SENTAN-Q training led to an opportunity to participate in a lecture in their international program even after the completion of SENTAN-Q. I appreciate the relationship and hope to continue expanding international exchange in research and education. I would like to express my sincere gratitude to people at Taipei Tech University, my mentor in STEP5, SENTAN-Q coordinators and administration, colleagues at the Faculty of Design, Ms. Blanco and Ms. Minami in Fuyuno lab, and my precious family for all the support I received during the training.

No.4

MAEKAWA Hiromi *Lecturer*

Affiliation **Faculty of Agriculture**

Research Field Molecular Cell Biology, Yeast Genetics



In this two-year SENTAN-Q program, I have extended my knowledge and skills in research and education, such as managing research projects and delivering active lectures, as well as acquired the skill to conduct research within the allotted timeframe. In research, my mentor and I have developed our common interests into a research project, which has become the basis of our continuing future collaborations. The biggest challenge for me was to arrange the content and schedule of each training, especially STEP4 and STEP6, which required coordination with the mentor, the students, and other parties. Our initial plans had to be revised because of the COVID-19 pandemic, according to the situation on both sides. Having these experiences, I now feel more confident in project management. Fortunately, I was able to go to Germany for student supervision for STEP6. Interactions with the mentor and the students were very stimulating and reminded me of the power of diversity in many ways. In addition, the SENTAN-Q program offers unique opportunities to learn about leadership skills, university governance, diversity inclusion, and active learning methods. Such knowledge and skills helped me greatly when I delivered online lectures in STEP6 and will help develop my abilities in research and university education further in future. Finally, I would like to express my gratitude to the SENTAN-Q office and other people involved for such an extensive program.

No.5

MARUYAMA-NAKASHITA Akiko

*Associate Professor*

Affiliation **Faculty of Agriculture**

Research Field Plant Nutrition, Plant Molecular Biology



Thanks to this program, I could spend a very productive two years. I want to thank everyone who supported me during this time.

We asked a top overseas researcher to conduct joint research and to write an original paper with students in my laboratory with mentoring from the researcher in STEP4. In STEP5, we learned about other research fields with mentoring from other professors at our university. Finally, in STEP6, we supervised students in overseas laboratories, wrote an original paper, and gave a formal lecture. It looked tough at first, but after contact with the researchers, I could enjoy working on it. I appreciate the mentors and students who worked with me.

Through this training, I realized that we could develop myself in any position at any time by taking the initiative and making decisions. I also learned the importance of making deadlines. With gratitude to those who helped me, I will use this experience to enhance my research education and related activities.

No.6

OHTA Shinri *Associate Professor*

Affiliation **Faculty of Humanities**

Research Field Linguistics, Cognitive Neuroscience



After extending the training period due to parental leave, I have successfully completed my training at the SENTAN-Q Program. Although things did not proceed as planned because of COVID-19 and parental leave, I learned a substantial amount about education and research through the program. Especially through the experience of co-supervising students with the overseas mentor in Step 4 and Step 6, and through the recurrent education in Step 5, I strengthened my skills as a researcher and educator. Online research supervision was often more challenging and time-consuming than in-person mentoring, but with the dedicated support of my mentor, I was able to complete writing the paper. In Step 6, I was also able to experience giving lectures at universities in the U.S., Korea, and Germany. Negotiating with many overseas researchers to provide classes gave me the confidence to pursue international joint research projects. Furthermore, Step 6 allowed me to start collaborative research and seminars with overseas colleagues. I want to continue to promote international educational and research activities by applying the practical skills in laboratory management and joint research that I have learned through the SENTAN-Q Program. In closing, I would like to thank all the professors and staff at the SENTAN-Q Office and those who have helped me in each step of the program.



## Second term Trainees

No.7

**SATO Kaori** *Associate Professor*

Affiliation

**Research Institute for Applied Mechanics,  
Division of Earth Environment Dynamics**

Research Field

Atmospheric Radiation



The SENTAN-Q turned out to be an outstanding training program, interacting with professionals, pioneers, and students from different fields, cultures, and at different stages of their carriers throughout STEP2~STEP6; working closely with overseas mentors and students, which stimulated new ideas and activities that, beyond expectation, led to the development of number of additional joint research projects on international levels. I would like to express my deep gratitude and appreciation to all the people who have been supporting this program, to the overseas mentors for their hospitalities, and to the trainees for making impressive and positive impacts on the learning processes.

No.8

**TANAKA Manabu** *Associate Professor*

Affiliation

**Faculty of Engineering**

Research Field

Chemical Engineering, Applied Physics, Plasma Chemistry,  
Plasma Diagnostics



During tough time of SENTAN-Q training from Aug. 2020 to July 2022, I felt physical distances from overseas researchers was no more important for us to have scientific and educational communications under COVID-19 situation.

All training steps were excited for me. Diversity and active learning in STEP 2, 3, and 5 were valuable and informative to be reflected to my lectures, classes, and student guidance. Supervising international graduated student in STEP 4 and 6 were fruitful experiences. Organizing international symposium on my research field, which was related to STEP4 and 6, was impressive and precious experience to improve my global planning and organizing skills. I expect to keep and expand our relationship with overseas researchers on the basis of research collaborations under SENTAN-Q project. I have a conviction that training like SENTAN-Q improves the level of faculty members in Kyushu University dramatically.

I deeply appreciate for organizing and leading this valuable and challenging project of SENTAN-Q and giving me this wonderful opportunity. I also thank to mentors and teachers in all STEPs for their kind acceptance and strong helps through the processes.

No.9

**Thomas DIEGO** *Associate Professor*

Affiliation

**Graduate School of Information Science and  
Electrical Engineering**

Research Field

Digital Humans and 4D capture



The SENTAN-Q program was a wonderful opportunity for me to build new connections both inside the university and with world top-level research institutions. I have learned a lot in the last two years both about efficient ways for teaching and how to lead academic research at top level. I was inspired by professors from University of California San Diego to apply new methods of active learning. I could initiate new exciting collaborative research with Stanford, and I learned a lot about how to lead an international joint project, keep the student motivated and build strong ideas that are supported by theory and have potential to significantly affect the community. I have spent three and a half months at INRIA Grenoble (France) in the Morpheo team led by Professor Edmond Boyer, who is a world acknowledged professor in Computer Vision. The research topics at Morpheo are very close to my research interest: digital humans, and so we had much interesting discussions almost every day with students and other professors. I have made all my efforts to contact world leaders in my domain and give lectures not only in my host research institute but also in many top-level international universities where I could face various profiles of audience and students. This allowed me to broaden my connections in Europe and gain invaluable experience in teaching in English in various situations.

No.10

**TODO Taiki** *Associate Professor*

Affiliation

**Graduate School of Information Science and Electrical  
Engineering**

Research Field

Computer Science and Micro-Economics



My purpose for joining the SENTAN-Q program. at the application stage, is to improve the skills of communication and problem solving in English, and to enhance my presence as an independent researcher in the international research community of AI and multi-agent systems. Although the originally-planned overseas training could not be conducted due to COVID-19, an alternatively-scheduled training by Berlitz about communication and conflict resolution gave me a great opportunity to improve the skill of problem solving in practical situations. Also, a research article based on the joint work through this program is published from the proceedings of a top-tier international conference of the AI field, which made me more confident on my research ability. At the same time, every advice by my two mentors, ranging from advising students appropriately to conducting research effectively, made me realize that I still have a long way to go, both as a teacher and as a researcher. I will keep working and studying harder, in accordance with the philosophy of recurrent training, which is a keyword of the SENTAN-Q program.

## Third term Trainees

In July 2021, 11 faculties were selected as the 3rd trainees and their SENTAN-Q training began in August. They took STEP 2 and STEP 3 lectures and then proceeded to STEP4. In STEP4, trainees learned how to conduct research guidance from overseas top researchers and completed writing an international co-authored paper against international students. After the certification of the completion of STEP4, they are currently working on overseas lectures and research guidance for international students, including overseas travel of more than 8 weeks for one year from August 2022. Furthermore, trainees received recurrent training in STEP5 to acquire new knowledge and broaden their scientific view. Some of them started international joint research and finished writing co-authored papers.

Please see the introductory video of the 3rd trainees (3 minutes per trainees).  
 (<https://sentan-q.kyushu-u.ac.jp/en/trainee/>)



### No.1 IKEGAYA Naoki *Associate Professor*

Affiliation **Faculty of Engineering Sciences**

Research Field Wind Engineering, Environmental Engineering



The program provides me various opportunities to become a top-level researcher as well as established educator. We, university faculty members, are required to be researchers having genuine global competitiveness and understanding the importance of diversity inclusion. As a third term trainee, I have worked with top-level overseas researchers to learn effective supervising skills. In addition, the experiences working with international students have improved my facilitating skills for conducting collaboration research activities. The improvement of my research skills is essential for effective and enjoyable research. Although the period of the SENTAN-Q program remaining for me is around half a year, I would like to maximize the chances given by this program to achieve fruitful outcomes. Consequently, I will contribute to both education and research in our university and school in the future.

### No.2 INOISHI Atsushi *Assistant Professor*

Affiliation **Institute for Materials Chemistry and Engineering**

Research Field Electrochemistry



At SENTAN-Q, I can learn research, teaching skills, diversity, etc. from top-level experts in each field. In STEP 4, domestic training, I was able to work on research and education through in-depth discussions with overseas mentors and student in my laboratory. As the impact of COVID-19 is gradually decreasing, I am now able to safely conduct STEP 6 overseas training. I have already started STEP6, and I am able to work on research and education together with top-level overseas researchers. In STEP6, I am able to gain a wonderful experience by interacting face-to-face with various researchers and students. My goal is to gain experience in research and education through this program and become a global leader in the field of energy storage materials. At the same time, I would like to deepen collaboration with various researchers around the world.

### No.3 KANEKO Naoki *Assistant Professor*

Affiliation **Faculty of Dental Science**

Research Field Autoimmune Disease, Tumor Immunity



I applied for this program because I wanted to be like the many wonderful mentors I have met in the past. They all had in common that they understood the needs of students with diverse backgrounds, educated them with precision and passion, and truly enjoyed teaching them.

I am participating in the program as a 3rd trainee and have begun my overseas training. I am working to increase my diversity and inclusion by communicating with many faculty, researchers, and students worldwide, working on collaborative projects, and experiencing student teaching. Through this program, I hope to hone our skills as educators and engage in educating world top-class students.

### No.4 KUSABA Akira *Assistant Professor*

Affiliation **Research Institute for Applied Mechanics**

Research Field Materials Engineering, Crystal Growth



I have been supervising the research of an international student in STEP4, and this year I also supervised the writing of a paper, which gave me confidence in my educational activities as a PI. During this period, I received practical advice from my overseas mentor, and I was able to learn how to supervise research from a world-class university. Currently, I am eagerly preparing for the STEP6 lectures at an overseas university. I have already given a demo lecture, and it was very well received due to the active learning methods I acquired in STEP3.

The research supervision of an overseas student in STEP6 has so far been conducted on an online basis, but I would like to accelerate the research by providing on-site supervision during the remainder of the training period.

### No.5 LIU Huixin *Associate Professor*

Affiliation **Faculty of Science**

Research Field Solar-Terrestrial Physics, Space Weather



In the past year, I carried out Step 6 related tasks, i.e., teaching and supervising students in overseas institutions. I taught in University of Oslo, Norway and also University of Rostok, Germany. I was very impressed by students' reaction sitting in my lectures. They were very active in not only asking questions, but also in group discussions and exploring further materials to deepen their understanding on what is taught in the class. I hope students in Kyushu university, especially Japanese students will also develop such proactive learning attitude. Another thing that was impressive is that there are student representatives in every institute who regularly give comments and requests to the institute's leaderships. On student supervision, in addition to regular Zoom meetings and in-person guidance in the student's home institute in Germany, I invited her for 2 weeks stay in Kyushu University, which helped greatly the communication between us.



## Third term Trainees

### No.6 MORIMOTO Yuki *Assistant Professor*

Affiliation **Faculty of Design**  
 Research Field Computer Graphics



The research field of computer graphics is a highly applied research field involving several academic areas. This year, I collaborated with an international student at Kyushu University and a professor in a foreign country for the SENTAN-Q project. Also, I learned the areas of other professors at Kyushu University. So, I was swamped, but I had a fulfilling learning experience. Currently, I am planning to study abroad. Because of COVID-19 situation, it is challenging to go overseas partially. However, compared to the past few years, the status became more realistic to go abroad for research. I have done 80% of the planning.

I am looking forward to doing it.

### No.7 NAKABAYASHI Koji *Assistant Professor*

Affiliation **Institute for Materials Chemistry and Engineering**  
 Research Field Carbon Material, Carbon Neutral Society



As a member of SENTAN-Q, I am able to spend a very meaningful time. In SETEP1~STEP4, I was able to take a curriculum unique to this program. In particular, there are no opportunities to learn university governance at Japanese universities. Therefore, it was a good opportunity to think not only as a researcher but also as an organizational management. Also, in STEP 4, I was able to receive guidance from a top-level overseas researcher as a mentor and learn about the educational guidance of international students. In addition, we have been able to build an international network, which is developing into joint research. In this way, the content of this program enables students to acquire important skills as international researchers. From now on, I would like to do my best so that I can grow myself.

### No.8 SUEMATSU Koichi *Assistant Professor*

Affiliation **Faculty of Engineering Sciences**  
 Research Field Functional Inorganic Materials, Electrochemistry



I study on the electrochemical interaction between solid and gas phases on the surface of functional metal oxide nano-particles, improve the gas sensing properties of the device. This gas sensing technique can detect a biomarker in biogas such as breath. Thus, I would like to create the new medical diagnosis device based on the gas sensing in the future.

Nowadays, I started the collaboration with a mentor and his students, and I plan to visit the mentor's laboratory to provide on-site research guidance and experiments. I hope to improve my research education skills through SENTAN-Q, and I would like to manage world-wide and world-class research with diverse researchers.

### No.9 Ade Irma Suriajaya *Assistant Professor*

Affiliation **Faculty of Mathematics**  
 Research Field Mathematics (Analytic Number Theory)



We are going through the last step in the third-term of SENTAN-Q Program and I am enjoying my time working with graduate students abroad while at the same time, preparing for my guest lecture which is to be held in spring. At the beginning of the program, we had lectures on university governance and teaching skills, we also had completed a student supervision project. In addition, we also had the opportunity to discuss research with professors in completely different fields as a part of recurrent education. I work in Mathematics which completely relies on perfect theories and this time I took the chance to study developmental psychology and applied linguistics. Thanks to this opportunity, I got to learn how research is conducted in social sciences and also learned tricks and important points to note when conducting an experiment. The first experience in supervising a graduate student has been very helpful when I started working on my second student project. SENTAN-Q Program has been a very fruitful faculty development program and I am doing my best to complete the program.

### No.10 TUDA Midori *Associate Professor*

Affiliation **Faculty of Agriculture**  
 Research Field Population Ecology, Eommunity Ecology, Evolutionary Ecology, Molecular Ecology, Population Genetics, Biological Control



SENTAN-Q is a great opportunity to deepen my view in research, education, and university governance from an international perspective. I also would like to bolster diversity in academia by becoming an active participant myself. In recurrent education, one of the SENTAN-Q trainings, I chose active researchers in other fields. Through one-on-one conversation, learning about cutting-edge knowledge and their views, I was inspired to develop collaborative relationships with them. Together with 2nd- and 3rd- term trainees, I learned negotiation skills at an online advanced English language workshop. Joint supervision of my international students on experiments and paper writing had benefited all the participants. Now, I'm negotiating with top ranked researchers abroad about the details of my lectures and co-supervision of their students. Looking to the future, I hope to develop a unique research field focused on my own field of ecology and biocontrol in tandem with AI and nano technologies, and to create an international research hub.

### No.11 YOSHIOKA Hiroaki *Assistant Professor*

Affiliation **Faculty of Information Science and Electrical Engineering**  
 Research Field Laser Engineering



I am currently conducting on the research of printable microlasers with the creation of innovative laser light sources as the core of my research. It is useful in advanced applications such as next-generation integrated quantum devices, and optical integrated circuits. Through the SENTAN-Q program, I would like to increase my presence in these fields of application that require international competitiveness.

A few years ago, I promoted international joint research through a long-term overseas dispatch. However, due to the high time cost spent on building a research environment and taking experiments, I couldn't promote enough activity on the perspective of "improvement of international research and teaching skills." Therefore, I applied for SENTAN-Q program in order to acquire new knowledge and achieve "improvement of international research and teaching skills". Currently, I am preparing for overseas lectures and directed study with overseas mentors and a student, and I plan to start traveling soon.

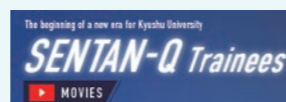
## Fourth term Trainees

In July 2022, 10 trainees were selected as the 4th trainees and their SENTAN-Q training began in August. They completed STEP 2 lectures on University governance and Diversity and Inclusive education and are currently taking STEP 3 lectures to learn teaching methodologies for active learning in English from February to March 2023. Trainees also started STEP4 from the beginning of their SENTAN-Q training in August 2022. In STEP4, they select overseas mentors and international students to give research guidance in English and write international co-authored papers with mentoring from overseas top-class researchers till the end of July 2023.

Trainees sometimes take trials and errors as they need to contact directly and initiate negotiation with overseas researchers themselves for the selection of overseas mentors in STEP4. However, this experience will help trainees gain confidence and further develop their research and educational skills.

Please see the introductory video of the 4th term trainees (3 minutes per trainees).

(<https://sentan-q.kyushu-u.ac.jp/en/trainee/>)



### No.1 GU Yujie *Assistant Professor*

Affiliation **Faculty of Information Science and Electrical Engineering**

Research Field Information Security, Mathematical Informatics



SENTAN-Q provides a very good opportunity for especially young researchers to learn many helpful skills for research and education. Through the SENTAN-Q training, I would like to interact with researchers and educators with various backgrounds, to broaden my international research horizons, to create new international joint research, as well as to improve my teaching, mentoring, and managing skills.

My research is in the mathematical informatics and information security. In the future, I hope to build a world-leading team in the research field of information science, as well as to have my contribution for establishing a safe and secure system for our society.

### No.2 HIROSE Masayo *Assistant Professor*

Affiliation **Institute of Mathematics for Industry (IMI)**

Research Field Statistical Science



I am not only interested in statistical science and statistical mathematics but also in applying to social science. Therefore, the SENTAN Q is an excellent opportunity for me because the program requires trainees to study other research fields. Also, I can expect to expand my view of mutual understanding between different research fields.

Such new knowledge and viewpoint can help more profound research in the future, taking into account the practical side. And then, in the future, I hope to contribute to society from a statistical mathematics point of view.

Although I am still in the middle of the first year of training, I feel that I have already broadened my perspectives.

### No.3 LIU Wei *Associate professor*

Affiliation **Faculty of Engineering**

Research Field Nuclear Thermal Hydraulics and Nuclear Safety



I was attracted by the SENTAN-Q for its in-depth training program. Taking it as the greatest career advancement opportunity, I applied for the program with no hesitation. So far, the lectures on diversity and inclusiveness have reminded me of their importance and I have decided to follow through on the idea of achieving group success under the principal of the diversity and inclusiveness. Through taking lectures on active learning, performing joint international research, and guiding of international students, I am equipped with a valuable opportunity to review my existing education and research methods, and to build international research networks. Furthermore, through the recurrent education program, I can broaden my research horizons and create new research directions.

### No.4 MATSUMAE Akane *Associate Professor*

Affiliation **Faculty of Design**

Research Field Social Innovation Design, Creativity Studies



When I take leadership roles in international academic communities with members from diverse backgrounds, I sometimes struggle with understanding issues and how to deal with the conflict happening there. I hope that this SENTAN-Q program will provide some perspectives on how to manage these situations.

It is also a great opportunity for me to meet inspiring colleagues within our own institution.

After completing the SENTANQ program, I expect to handle conflicts in international academic societies with more confidence. Another major expectation is that I will be able to encourage members of the younger generation from diverse backgrounds, students as well as colleagues, more authoritatively and effectively.

### No.5 MATSUSHIMA Ayami *Associate Professor*

Affiliation **Department of Chemistry, Faculty of Sciences**

Research Field Biochemistry, Nuclear Receptors, Peptide Science, Risk Science, Opioids



In this SENTAN-Q program, trainees who are certified for completion of each training STEP are awarded one-level of internal promotion, generally within one year. This is the main reason why I applied for SENTAN-Q. University faculty members are required not only to conduct good teaching and research but also to improve their visibility. SENTAN-Q would be a good opportunity to fit this purpose. In addition, each STEP2 to STEP6 training program itself is also an attractive program. These are good opportunities to get to know faculty members from different fields.

I am currently studying on various nuclear receptors, conducting structure-activity relationships and analyzing the effects of toxic environmental chemicals. Nuclear receptors are transcriptional factors that regulate the transcription of their target genes. In the future, I would like to discover the analgesic control mechanism involving the transcription mechanism for human happiness. Furthermore, as an alumna of Kyushu University, I am happy that my alma mater will become more appealing to prospective students, researchers and academics, and I will contribute to this end.



## Fourth term Trainees

### No.6 MIYAUCHI Shoko *Assistant Professor*

Affiliation **Faculty of Information Science and Electrical Engineering**  
 Research Field Medical Image Processing, Childcare Assistance Technology



When I participated in an overseas education training program, I learned the importance of teaching skills and felt that my own teaching skills are not enough. Therefore, I participated in SENTAN-Q to improve my international teaching skills and develop my research.

At SENTAN-Q, we can have the opportunity to learn how to supervise research from overseas mentors, receive diversity and inclusive education, and more. Among them, I'm feeling that recurrent education is one of the most exciting training programs because it is an excellent opportunity to get new knowledge in various fields.

In the future, I'd like to develop young researchers in my research fields by using the teaching skills which will be obtained through SENTAN-Q. In addition, by using the international connection that will be strengthened through SENTAN-Q, I'd like to further develop my research.

### No.7 OKUMURA Takamasa *Assistant Professor*

Affiliation **Faculty of Information Science and Electrical Engineering**  
 Research Field Plasma Agriculture



The reason I decided to participate in SENTAN-Q is that I can form a global network through this program. One of the most important themes in my research is the scientific construction of plasma agriculture. I am fascinated by the fact that plasma irradiation with seeds for only a few seconds to minutes determines the subsequent life of the plant, and I am working on elucidating this mechanism and social implementation of this technology. There is a wide diversity of seeds, plants, and agriculture. For this reason, SENTAN-Q's organic collaboration with the world's top researchers will enable further diversified development of research and accelerate the construction of scientific principles of plasma agriculture. Through plasma agriculture, I will promote methods of increasing food production without relying on fertilizers and reduce carbon dioxide emissions.

### No.8 Ellen VAN GOETHEM *Associate Professor*

Affiliation **Faculty of Humanities**  
 Research Field History of Ancient Japan, History of Ideas



I decided to participate because I was impressed by the scope of the program. The goal of SENTAN-Q is not limited to increasing the international visibility of the participants and their research. There are also pedagogical, administrative, and social components embedded within it. Over the next two years, I will update my teaching skills, have a stronger grasp of university administration, and obtain a better understanding of issues related to diversity, inclusion, and equity, all of which are also important challenges for Japanese society in general. I plan to apply what I have learned not only to my own teaching and research, but I hope to have a broader impact as well. For the last five years, I have participated in a university-wide committee that facilitates the integration of non-Japanese researchers and faculty members into Kyushu University. Moreover, we also create specific proposals to propel the university's efforts at internationalization. Some of what I learn through the SENTAN-Q training will undoubtedly be useful in this respect.

### No.9 YAMASHITA Naoto *Assistant Professor*

Affiliation **Faculty of Information Science and Electrical Engineering**  
 Research Field Semiconductor spintronics



SENTAN-Q is a precious opportunity for providing me the chance to challenge such high-quality research and education at a level of world-class. I have some role models as a university professor and always imagine how to become like them. However, I could not have imagined a concrete plan. I was so lucky to find the SENTAN-Q program because it nicely matched my image and would provide a more concrete plan, that I did not hesitate even one minute to apply for this exciting program.

This fantastic program seems to request us to improve not only our skills in research, but also our skills in education, management, and networking beyond our original research fields. I would like to learn as much as possible from everything provided by this program.

### No.10 YASUKOCHI Tomoyo *Associate Professor*

Affiliation **Faculty of Dental Science**  
 Research Field Pharmacology, Biochemistry, Oncology



I am YASUKOCHI Tomoyo from OBT Research Center, Faculty of Dental Science. I feel very privileged to be part of this program because it gives me an opportunity to think about what is required of a researcher now and in the future. In addition, I am very impressed with this training because I can interact with foreign researchers and receive feedback from mentors from top-level universities. For this, I can gain a lot of knowledge about fields that are not restricted to my research.

Though this program has just started, I believe that this program will change the way I see things, help me build confidence, and make me a better researcher and educator in the future. I am convinced that SENTAN-Q program will be a turning point for my future career.



## Plan for the FY2023 term (April 2023 to March 2024)

In FY2023, the 3rd trainees will complete all courses of SENTAN-Q training program in July. The 4th trainees will complete STEP4 in July and will proceed to STEP6 overseas training. The nomination process for the 5th trainees will start from March 2023. After the selection, the 5th trainees will start their program from August.

Some of the 1st and 2nd trainees were unable to conduct on-site lectures due to overseas travel restriction under COVID-19 pandemic. However, as the situation is being improved, the 3rd trainees are required to travel abroad.

3rd term Trainees	4th term Trainees	5th term Trainees
<p><b>STEP5</b></p> <p>Up-to-date field-specific recurrent training</p> <p><b>STEP6</b></p> <p>Final examination Overseas training more than 8 weeks (August 2022 ~ July 2023) Overseas lectures and research guidance</p>	<p><b>STEP4</b></p> <p>Directed study and guidance of international students</p> <p><b>STEP5</b></p> <p>Up-to-date field-specific recurrent training</p> <p><b>STEP6</b></p> <p>Final examination Overseas training more than 8 weeks (August 2023~July 2024) Overseas lectures and research guidance</p>	<p>March to May: Application for the nomination of candidates</p> <p>June: Screening process by application documents</p> <p>July: Interview</p> <p>July: Final selection</p> <p><b>Start the program</b></p> <p>August to March: STEP2 August to March: STEP3 August: STEP4 and STEP5</p>

## SENTAN-Q expected effects

SENTAN-Q started as a subsidized project sponsored by MEXT in 2019 and received the highest “S” rating in the mid-term evaluation of the project in 2021. SENTAN-Q inspired a new subsidized project “Female Leader Development Type” that started in 2022. The following ripple effects can be expected from the implementation of SENTAN-Q project.

- *The hiring-training-deployment-promotion cycle will raise both the quality and quantity of female faculty and young faculty.*
- *It will make the university a more diverse and inclusive organization, reducing unconscious/hidden biases that could hold back women and juniors recruited to senior positions.*
- *Advanced research, for example digital integration (AI, IoT) will open up new potential for academic-industry partnerships and startups (raising the investment value of academic research).*
- *The project will serve as a best practice model (follow-ups on trainees' accomplishments will be conducted among the former trainees and the quantitative outcomes published).*
- *The university will attract more international students and non-Japanese faculty, boosting its international reputation.*
- *Female students will be inspired by the prominent, visible roles played by the former trainees.*

## Diversity and Super Global Training Program for Female and Young Faculty Unconscious Bias checklist

Everyone has unconscious, or hidden, biases, which are picked up inadvertently from the environment and become etched into your thinking, influencing your decisions in various situations. Due to their subtle nature, unconscious biases are hard to completely eradicate. Biases may cause you to treat someone in a certain way because of their gender, ethnicity, or age. In organizations, unconscious biases can make individuals from marginalized groups more likely to be disadvantaged for personnel evaluation such as during recruitment or promotion.

To minimize the effects of unconscious bias, institutions increasingly require examiners to undergo unconscious bias training before they judge candidates' performances. SENTAN-Q is no exception. Thus, SENTAN-Q distributes this unconscious bias checklist to each member of the selection committee so that they may become aware of their unconscious biases before a screening.

Please read the following instructions before starting the checklist.

1. *Unconscious bias is a phenomenon related to neurology, not personality. You can only avoid being affected by unconscious biases if you are aware that everyone is affected by them, including yourself.*
2. *Unconscious biases stem from preconceptions and similar attributes. You may be more vulnerable to the effects of bias when you feel rushed for time, tired, or stressed.*
3. *Before the start of the screening process, take time to clarify the selection criteria and check that each member understands them. A greater awareness of the criteria will help ensure a fair, unbiased process.*
4. *Conditions of departments and universities may change with the times. When deciding whether a candidate is right for the organization in question, consider how they may contribute to the organization's future, not just its present.*
5. *Be aware that past academic evaluations may have been affected by bias.*

SENTAN-Q secures the diversity of the selection committee in order to assess diverse candidates. Please be prepared to listen to and respect the ideas and opinions of members of the committee from different backgrounds and be equally mindful of unconscious biases.

By signing below, I acknowledge that I have read and understood and agree to the above policy and instructions.

Name (please print)

Date

Signature or seal

*Please ensure that each member of the selection committee signs the checklist.*



## 1st Term Trainees' Program Achievements (January 2020-December 2021)

STEP4 Overseas Mentors List	Affiliation of Trainees
1. Prof. Daniel J. Scheeres, University of Colorado Boulder, USA	Faculty of Engineering
2. Prof. Kirstin Krüger, University of Oslo, Norway	RIAM
3. Professor Paul Midford, Norwegian University of Science and Technology, Norway	Faculty of Social and Cultural Studies
4. Prof. Christopher Bannerman, Middlesex University London, UK	Faculty of Design
5. Prof. Judy E. Anderson, University of Manitoba, Canada	Faculty of Agriculture
6. Prof. Lindsay Stringer, University of Leeds, UK	Faculty of Agriculture
7. Prof. Joseph Wang, University of California San Diego, USA	ISEE
8. Prof. Benjamin Kane, The University of Hong Kong, Hong Kong	IMI
9. Prof. Honggang Cui, Johns Hopkins University, USA	Faculty of Engineering
10. Prof. Sebastien Tixeuil, Sorbonne University, France	ISEE

## STEP5 Recurrent Training Lecturer List (Kyushu University)

• "Data analytics" Masaya Okada, School of Interdisciplinary Science and Innovation
• "Universal design Research" Mari Tanaka, Faculty of Arts and Science
• "Bioethics" Johan Lauwereyns, Faculty of Arts and Science
• "Western Civilization and Christianity" Atsushi Okazaki, Faculty of Humanities
• "Statistical Methods for Analyzing Social Surveys" Tomoyasu Nakamura, Faculty of Human-Environment Studies
• "Environmental Economics" Nobuhiro Horii, Faculty of Economics
• "Mathematical model of Shape" Akiko Satake and Koji Noshita, Faculty of Science
• "Ionosphere and Space Weather" Liu Huixin, Faculty of Science
• "Satellite engineering" Toshiya Hanada, Faculty of Engineering
• "Special Lecture on Life Information Processing data" Seiichi Uchida, ISEE
• "Analysis of Video Data using Machine learning" Seiichi Uchida, ISEE
• "Examination of CO2 Reduction Analysis for Horticultural Facilities" Daisuke Yasutake, Faculty of Agriculture
• "Gender and Sexuality" Chisato Nonaka, International Student Center
• "Middle eastern Culture" Hiroko Kinoshita, International Student Center
• "Innovation Management (Entrepreneurship for Technology)" Yuichi Harada, Global Innovation Center
• "Environmental and Energy Policy, Introduction to Science, Technology and Society" Toshiya Kobayashi, Center for Science, Technology and Innovation Policy Studies
• "Risk Management in University Life" Yusaku Omodaka, Counseling Health Sciences Center
• "Nautical Informatics" Hirofumi Matsumoto, National Fisheries University (other univ.)
• Others Kyushu University-UC San Diego Joint Webinar Series "SDGs THINK & ACT Together"

STEP6 Overseas Institutions < where trainees gave lectures >	Affiliation of Trainees
1. Indian Institute of Technology (ISM) Dhanbad, India	Faculty of Engineering
2. University of Oslo, Norway	RIAM
3. European University Institute, Italy* Shiv Nadar University, India University of Pavia, Italy* University of Trento, Italy* Ca Foscari University, Italy* University of Cagliari, Italy*	Faculty of Social and Cultural Studies
4. Federal University of ABC, Brazil Bandung Institute of Technology, Indonesia Indonesia Institute of the Arts Yogyakarta, Indonesia University of Peradeniya, Sri Lanka Chulalongkorn University, Thailand National Taiwan University of Arts, Taiwan	Faculty of Design
5. Wonkwang University, South Korea Chiang Mai University, Thailand	Faculty of Agriculture
6. National University of Battambang, Cambodia Vietnam National University of Agriculture, Vietnam	Faculty of Agriculture
7. The University of Pau and the Pays de L'Adour, France	ISEE
8. The University of Hong Kong, Hong Kong*	IMI
9. Bogor Agricultural University, Indonesia	Faculty of Engineering
10. Sorbonne University, France	ISEE

The overseas institutions marked with \* is where on-site lectures were given by trainees.

STEP6 Overseas Mentors <Research Guidance of International Students >	Affiliation of Trainees
1. Prof. Daniel J. Scheeres, University of Colorado Boulder, USA Prof. Badam Singh Kushvah, Indian Institute of Technology (ISM) Dhanbad, India	Faculty of Engineering ※2 papers
2. Prof. Seok-Woo Son, Seoul National University, South Korea	RIAM
3. Prof. Sofia Graziani, University of Trento, Italy	Faculty of Social and Cultural Studies
4. Prof. Christopher Bannerman, Middlesex University London, UK	Faculty of Design
5. Prof. Charles G. Sagerström, University of Colorado, USA	Faculty of Agriculture
6. Prof. Alistair Ford, Newcastle University, UK	Faculty of Agriculture
7. Prof. Robert Duran, The University of Pau and the Pays de L'Adour, France	ISEE
8. Prof. Benjamin Kane, The University of Hong Kong, Hong Kong	IMI
9. Prof. Uju Sadi, Bogor Agricultural University, Indonesia Prof. Safrina Dyah Hardiningtyas, Bogor Agricultural University, Indonesia	Faculty of Engineering
10. Prof. Sebastien Tixeuil, Sorbonne University, France	ISEE



KYUSHU UNIVERSITY

MEXT Support Program for the Development of Human Resources  
in Science and Technology  
“Initiative for Realizing Diversity in the Research Environment”

## Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q)

Guideline for 5<sup>th</sup> Term Trainees  
(Feb. 27, 2023)



1

### Objective of this program

- The program is made to provide outstanding female and young faculty members with opportunities for strengthening their research and educational skills that meet the highest global standards to become attractive and competitive in the world’s academic research.
- Trainees in this program are selected through highly transparent screening process from candidates recommended by each department and are expected to attain promotions to senior or management positions within a few years. In principle, trainees will take two-years diversity & global training course. When trainees reach the targeted learning level, certificates will be given and tenure or one-level promotion will be granted within one year.
- Through the program, trainees can acquire research and educational skills that meet the highest global standards, and the wide knowledge required for senior or management researchers. Furthermore, the formation of on-campus network that goes beyond the boundaries of male and female crossing different research fields are expected (as well as the elimination of unconscious bias)



2

### Contents of this program

- This program consists of STEP1 to STEP6
  - STEP1 Selection of trainees
  - STEP2 University governance, diversity and inclusive education (on campus)
  - STEP3 Teaching methodologies for active learning in English (on campus)
  - STEP4 Directed study and guidance of international students (on campus)
  - STEP5 Up-to-date field-specific recurrent training(on campus)
  - STEP6 Final Examination: Teaching and directed study (overseas)
- Period : 2 years for each trainee (can be extended under certain conditions, e.g. maternal leave or nursing care)
- The program is to be implemented for six rounds from FY 2019 to FY 2024 as a JST project. The continuation after 2024 has not been decided. The program is expected to promote about 60 trainees through six application rounds.
- Trainees who complete the courses from STEP 1 to STEP 6 will receive certificates from the President and are granted tenured position or one-level promotion within one year of the completion of the program.
- The program is being implemented with the cooperation of the entire university as part of administrative reforms centered around “young, women and foreign researchers” as set forth in Kyushu University’s Mid-term objectives and Mid-term plan and the National University Administration Reform Facilitation Project etc. with the adoption of MEXT’s Initiative for Realizing Diversity in the Research Environment.



3

### Details of this program(1/6)

#### STEP1 Selection of trainees (on campus)

Trainees are selected through highly transparent screening process from candidates recommended by each faculty.

- Qualified applicants: Female faculty, or male faculty aged 37 years old or younger at the end of FY in which the program starts (associate professor, lecturer and assistant professor)
  - (1) Tenured faculty (2) Untenured faculty but scheduled for a tenure review
- Application period: March 1, 2023(Wed) to May 10, 2023 (Wed)
- Application documents: Forms 1 to 4
- Interview Date: Early July 2023 (scheduled)
  - Place: Kyushu Univ. Ito Campus (details will be announced later)
- Selection criteria
  - (1) Sufficient research achievements (2) Having a positive attitude to learning about new issues surrounding universities and society with the acceptance of Kyushu University’s policy that faculties should learn with students (3) Being motivated to improve global research and educational skills including overseas training
- Selection Committee members: President and board members of Kyushu University, professors emeritus in Institute for Advanced Study and external experts (about 10 members in total)
- Language: English and Japanese
- An unconscious bias check sheet should be provided to the judges before review
- Number of applicants (planned): 5-10 people / year
  - male : female = 1:1, humanities : science = 1:1 in principle
- Result announcement : Early July 2023
- Orientation meeting for successful applicants: Late July 2023
- Training course start : August 1, 2023 (Tue)



4



## Details of this program(2/6)

### STEP2 University governance, diversity and inclusive education (on campus)

**Objective** Learn about the importance of university governance, diversity and inclusion. Lecturers are invited from the world's top-class universities (mandatory course)

#### Diversity and inclusion

- Period: 1-2days intensive lectures in the first year
- Place: Kyushu Univ. Ito campus (It can be conducted online under certain conditions)
- Learn about the importance of diversity and inclusion in university and society and about various innovation cases born from these concepts.
- Lecturers are experts invited from overseas

#### University governance

- Period: 1-2days intensive lectures in the first year
- Place: Kyushu Univ. Ito campus (It can be conducted online under certain conditions)
- Learn about a vision of what a university should be from a long-term perspective and university management.
- Lecturers are university vice president or former vice president invited from the world's top-class universities (overseas).



5

## Details of this program(4/6)

### STEP4 Directed study and guidance of international students (on campus)

**Objective** Learn how to conduct research guidance in English for international students while receiving guidance from the world's top-class senior researcher as a mentor

- Period: 1 year starting from August, 2023
- Place: Trainees' laboratory
- Setting research theme, conducting research guidance in English and writing international co-authored paper etc. with international students (maximum 2) supervised by an overseas mentor
- An overseas mentor should be a university researcher who meets the requirements of Progress 100.
- Selection of international students and overseas mentor should be done by a trainee in principle.
- Web-conferencing system can be available for overseas communication. (In FY 2019, Kyushu University purchased a web-conferencing system and installed it in the Office for the Promotion of Gender Equality. A device can also be made available for lease.)



7

## Details of this program(3/6)

### STEP3 Teaching methodologies for active learning in English (on campus)

**Objective** Learn about the latest teaching methodologies for active learning from lecturers invited from the world's top-class universities (mandatory course)

- Period: 2-3 days of intensive lectures in the first year
- Place: Kyushu Univ. Ito campus or Fukuoka City (It can be conducted online under certain conditions)
- Classes are conducted in English. Intensive and interactive lectures.
- Lecturers are experts invited from overseas.



6

## Details of this program(5/6)

### STEP5 Up-to-date field-specific recurrent training (on campus)

**Objective** Select your extra-professional field from the top priority issues at Kyushu University, such as the latest data science (e.g., AI or IoT), SDGs, etc. and receive recurrent training to broaden the scientific view. This will be helpful to remain highly active after promotion through the establishment of interdisciplinary fields, research centers, and budget requests.

- Period: Take two or more courses from the list between August 2023 to July 2024 as the mandatory-elective course.
- Place: Kyushu Univ. campuses
- Lecturer: Kyushu Univ. faculty members in principle. Lecturers can also be invited from outside the university upon request from trainees.
- Select the extra-professional field. Faculty from the humanities should take science-related classes, and vice versa. Classes for industry-academia collaboration and entrepreneurship are also available.
- STEP 5 can be completed after STEP 6 overseas research.
- Lectures are conducted in English or Japanese using active learning method



8

## Details of this program(6/6)

### STEP6 Final Examination: Teaching and directed study (overseas)

**Objective** Overseas training constitutes the final examination of SENTAN-Q. It determines whether the trainees have developed research and educational skills that meet the highest global standards.

- Period: 1 year starting from August 2024 to July 2025 (overseas staying period should be more than 8 weeks)
- Place : Overseas partner university (or another world's top-class universities)
- Only trainees who have completed the STEP2 to STEP4 can participate in STEP6
- Conduct lectures at an overseas partner university in English. If it is difficult to conduct a regular class, it can be replaced with tutorial lectures at multiple universities.
- Student research guidance in English at an overseas partner university with a mentor. In principle, as in STEP 4, writing of one international co-authored paper as a principal investigator is required.
- The trainee selects an overseas partner university and mentor
- Expenses necessary for overseas training are borne by the SENTAN-Q program.



9

## Evaluation of the trainees' achievements

### STEP2, STEP3 , STEP5

- Quantitative evaluation of trainees' achievements based on rubric tables should be done by lecturers.
- A self-evaluation by the trainees will also be done at the same time to feedback on the efficiency of the program for the next year

### STEP4, STEP6

- An overseas mentor from the world's top-class university determines whether the trainees have developed research and educational skills that meet the highest global standards in consideration of the achievement of internationally co-authored papers.

**Final certification of the training (after the completion of two-years program) is decided by the President after deliberation by the committee**



10

## Appendix

- This program is designed to empower female and young faculty members by the direct guidance of the world's top-class researchers and being assessed on their research and educational skills. The goal is not simply to increase the number of female and young faculty members in senior or management positions, rather to make them to be competitive and attractive in global research market.
- The ultimate goal is to identify and nurture outstanding female and young researchers at Kyushu University who can lead the world's academic research and to appeal their skills to the world.
- The trainees should understand the objective of this program and make the best use of this training opportunity for their own learning and achievements.



11

The "Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q)" is now in its fourth year. The 1st and 2nd trainees who have received certification for completing the program are now active in research and education while achieving a one-step promotion within a year. Also the 3rd and 4th trainees are growing and challenging themselves to do things they have never experienced before.

Here is the SENTAN-Q Annual Report 2022. I would like to express my heartfelt gratitude to many people who have cooperated in the preparation of this report, and to Ms. Shoko Sagara who has made a special and large contribution.

March 2023

Eriko Jotaki

Office for the Promotion of Gender Equality, Kyushu University



## Establishment and Request for Support for SENTAN-Q Project Fund



### Providing outstanding female and young faculty more opportunities for becoming active in world's academic research

Although the number of newly employed female faculties is rising, the proportion of female and young faculty in senior positions such as professors or associate professors still remain low in Japan compared to other countries. To solve this issue, simply increasing employment of female and young faculty is not enough. We believe that this training system is necessary to provide female and young faculty with opportunities to challenge themselves and gain research and educational skills that meet the highest global standards. It also aims to promote appointment to senior positions and pass on this mindset to the next generation of students.

Nurturing Diversity and Super Global Faculty with world top-class skills and their promotion to senior positions is a challenge for all of Japan, not just Kyushu University. Each fiscal year, about ten trainees are selected from outstanding female and young faculties for SENTAN-Q program. SENTAN-Q provides trainees with opportunities for strengthening their research and educational skills to become competitive in the world's academic research. During the two-years program, trainees can acquire research and educational skills that meet the highest global standards, and the wide knowledge required for senior or management researchers.

### The learning of teachers is for the future benefit of the university, the local community, Japan, and the world

In addition to the above challenges, the decline in Japan's research capability and competitiveness has recently become an issue. The next generation of students will be responsible for Japan's future, and it is the current university faculty who are teaching those students. Improving the quality of university faculty in Japan is essential for the future of those students. Students cannot learn about taking challenges from faculty who don't take challenges themselves. In the SENTAN-Q program, professors selected from world top-class universities teach faculty about issues such as "what purpose do universities serve?" "as faculty, what can I do for society?" and "how can we build a future society that respects diversity?"

### Faculty learn alongside students: Up-to-Date Recurrent education

The origin of the term "university" is "universe," "a place where all intellect meets." Experts in all kinds of fields gather at universities, making it almost like a miniature universe. In the SENTAN-Q program, faculty members also cross the humanities-science divide and learn about up-to-date academic fields through recurrent education. The themes can be topics such as data science and SDGs, and the guiding instructors are other faculty from the same university. Having discussions that transcend disciplines will produce new creation.

### The source of global competitiveness is teaching/educational skills that brings out the student's maximum potential

In the SENTAN-Q program, overseas mentors from world top-class universities teach how to guide students in a practical manner. What is the optimal method of instruction to extract the student's independence and motivation? How do we transcend the language barrier and teach international students? In the international joint research collaboration of SENTAN-Q, it is not trainees who write the thesis, but the international students themselves. Trainees learn the essence of research guidance from overseas top researchers. Students are a reflection of their teacher. Both parties help each other and work together over the two years to complete the task of writing two international co-authored papers. Until now, all trainees have cleared this difficult task with research institutes across the world.

### With a long-term vision, achieve a university environment that is truly open and fair

The female and young faculty in SENTAN-Q are outstanding researchers with talent and human appeal that represent Kyushu University. Crossing the boundaries of research fields, positions, age, nationality and sex, the trainees learn together as classmates and juniors/seniors, and if they are involved with the university and faculty administration in future, we believe that we will be able to achieve a university environment that is truly fair.

### Trainee specializations:

Space engineering, climate change, Chinese diplomacy, art and society, cultured artificial meat, food economics, biosensors, industrial applications of mathematics, supramolecular chemistry, drone control, organic semiconductors, preventive dentistry, VR/AR materials, plant physiology, language brain science, Arctic atmospheric environment research, urban environment, information science, media art, new lithium batteries, insect science, cyber security, nuclear reactor science, place design, child care support engineering, laser engineering, plasma agriculture, environmental hormones, etc.  
Future-oriented human resources who will change the university and society with their research capability and human strengths are currently being nurtured at Kyushu University.

### Project content

In SENTAN-Q, trainees complete six steps (Step 1-6) of overseas training during a two-year period. Donations for the fund will be primarily used for the below four steps.

STEP 2 University governance, diversity and inclusive education	[Cost of inviting lecturers]
STEP 3 Teaching methodologies for active learning in English	[Cost of inviting lecturers]
STEP 4 Directed study and guidance of international students in English	[Research expenses]
STEP 6 Final examination: teaching and directed study (overseas)	[Overseas travel expenses]

It has been difficult to provide support with university funds for cases such as supporting research activities during maternity leave or childcare leave, or the costs of accompanying family for long-term overseas training. Now, we aim to develop a comfortable workplace environment for both men and women using these funds. [work-life balance support expenses, etc.]

For details of SENTAN-Q program, please view in this report and on the website.  
<https://sentan-q.kyushu-u.ac.jp/>



**Fund name:** Kyushu University Fund Specific project "Kyushu University Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q) Project Fund"

**Fundraising period:** Until July 2026

**Donation amount:** Corporate organization: 100,000 yen per donation; Individual: 10,000 yen per donation (can make multiple donations)

**Target amount:** 20 million yen/year

**Gratitude (for donations to the SENTAN-Q Project Fund):**

Invitation to SENTAN-Q events (kick off meetings/graduation ceremonies/accomplishment report events, etc.)

Inclusion of your name and acknowledgment on the SENTAN-Q website and annual reports, and free annual reports

Donations to this fund are eligible as a tax deduction for a donation to charity under the Income Tax Act.

For more information about how to make a donation, please visit the following website.

**Kyushu University Fund** [https://kikin.kyushu-u.ac.jp/news/view.php?cid=1677&amp;r\\_search=&amp;mode=1&amp;page=1](https://kikin.kyushu-u.ac.jp/news/view.php?cid=1677&amp;r_search=&amp;mode=1&amp;page=1)



(Inquiries about the procedure for donations)

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