International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

2017

The first semester report

筑波大学
University of Tsukuba

Introduction

Today there is a need for professionals throughout the world with the ability to solve various global-scale problems. Specifically, the human survival issues of 'Food' and 'Health' are inseparable as exemplified by the concept of 'food is medicine', which can be considered the key to realizing a 'disease-free society'. Given that food-related health issues, lifestyle-related diseases, challenges securing food, the demand to reduce medical costs, and other such issues are closely related to society, there is a need to fuse agriculture and medical science, as well as return those results to society. Therefore, in September 2017 the University of Tsukuba established the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD) as an international and interdisciplinary cooperative university degree program that integrates agriculture and medical science as part of the project to strengthen the effectiveness of Japan's national universities and for the purpose of training highly skilled professionals with the ability to solve global-scale problems related to food and health.

Administered in collaboration with the University of Bordeaux in France and National Taiwan University in Taiwan, GIP-TRIAD is Japan's first international joint degree program (JDP) that involves three universities. One feature of the program is that students attend the University of Tsukuba, Taiwan National University, and the University of Bordeaux in turn during each semester, allowing them to take courses and receive research guidance that utilize the strengths of each university. In other words, by utilizing an organization suited to the interdisciplinary educational style of the University of Tsukuba, the collaboration between industry, government, and academia within the Tsukuba Science City, and the characteristics of each country, including Bordeaux's European food production system and its advanced use of food resources for maintaining health, as well as Taiwan's subtropical and tropical environments and its traditional Chinese medicine, GIP-TRIAD provides students with the skills to understand food and health related security issues, as well as with the skills to link food resources and health. Because three different universities (University of Tsukuba, the University of Bordeaux, National Taiwan University) from three different countries collaborate to administer this international joint degree program, we call this global innovation degree program GIP-TRIAD. GIP-TRIAD aims to become an international joint degree program that ensures a level of globally-accepted quality.

This report summarizes the initiatives taken thus far by the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health with a focus on the activities of the first semester at the University of Tsukuba. We hope that this report deepens the reader's understanding of the GIP-TRIAD initiatives.

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Overview of GIP-TRIAD

Human Resource Development Goals

Based on the concept of 'food is medicine' and in response to problems in maintaining and promoting health, issues related to handling food supply stability and security, and meeting other challenges being faced by humans on a global-scale, GIP-TRIAD aims to nurture highly skilled, global professionals with the expertise and practical skills to bridge global social needs and R&D under a scientific understanding of the influence that food has on health and armed with knowledge on food production technology and food safety assessment methods.

Core Academic Program Fields

In order to nurture expertise related to the benefits and safety of food resources and health foods on the body, GIP-TRIAD provides education and research with a focus on the fields of medical science, hygiene, and public health. Expertise in food production and processing is also important for achieving the goals of GIP-TRIAD, so the program curriculum is also designed in coordination with areas related to the agricultural field.

Curriculum

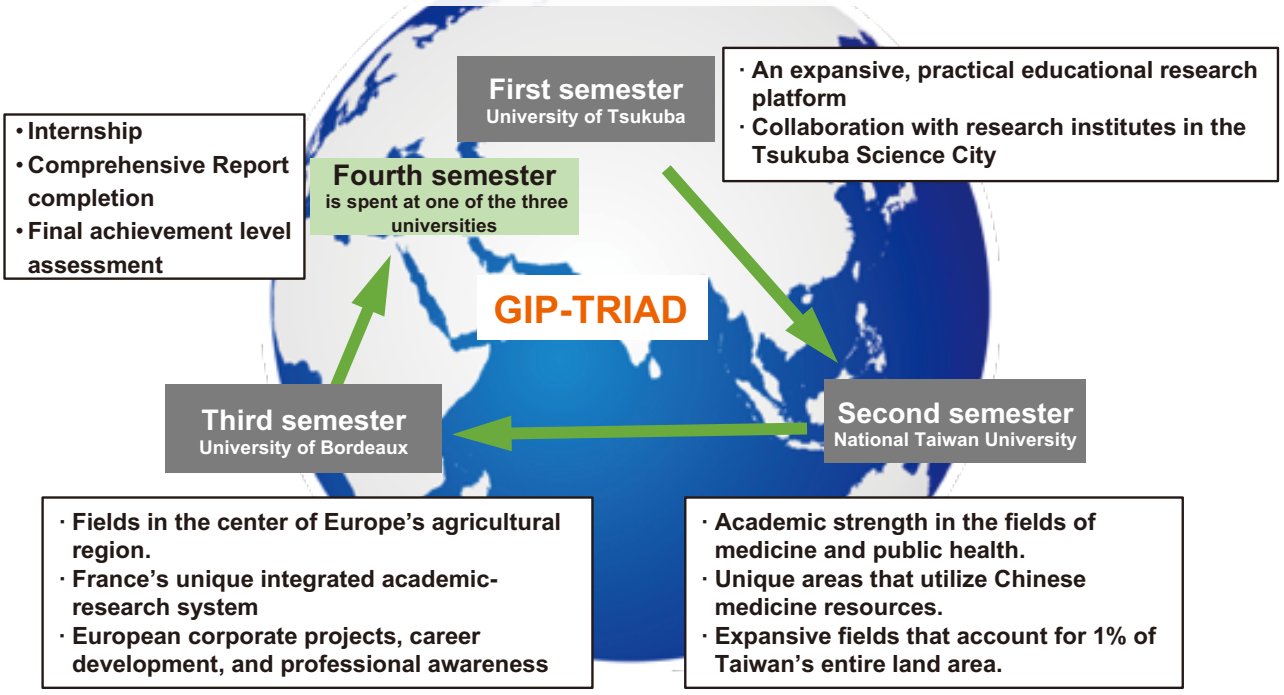
One feature of GIP-TRIAD is that students attend the University of Tsukuba (Japan), Taiwan National University (Taiwan), and the University of Bordeaux (France) in turn during each semester, and take courses and receive research guidance at each university. In short, GIP-TRIAD has combined the unique strengths of the University of Tsukuba with those of National Taiwan University and the University of Bordeaux to design a curriculum and educational organization that is complemented and enhanced by the strengths of each. All classes are conducted in English, and provide expertise related to Agro-Biomedical Science (bridging food security issues, health security issues, agriculture, and medical science), as well as nurture Agro-Biomedical Science literacy, coordination skills, and practical skills through fieldwork in each country, corporate internships, and entrepreneurial studies (entrepreneurial spirit). In this way, GIP-TRIAD provides the foundation for highly skilled, global professionals (global innovation specialists) with the ability to bridge the needs of global society and R&D in response to maintaining and promoting health, ensuring a stable food supply, and meeting other such issues. In addition, GIP-TRIAD includes a unique learning outcome assessment system (GLidD), by which the supervising professors at the three universities provide academic support while assessing the level of student achievement. During the fourth semester, students complete their original research topic in place of a master's thesis, and those who pass a final examination jointly held by the three universities are awarded their joint Master's Degree (Agro-Biomedical Science) from the three universities and receive a graduation certificate signed by all three university presidents.

Future Path for Graduates

Through their practical studies across Japan, Asia, and Europe, graduates of GIP-TRIAD will have obtained expertise and practical skills related to maintaining and promoting health through food, as well as skills related to food safety assessment, so are expected to act globally as professionals with master's level expertise and with an international perspective at food companies, pharmaceutical companies, trading companies, and logistics companies

Building an International Tri-University Collaboration in Medicine and Agriculture Among the University of Tsukuba, National Taiwan University, and the University of Bordeaux to Train Highly Skilled Professionals with an Understanding of 'Food and Health' and the Ability to Act Internationally

Practical Studies Across Japan, Asia, and Europe
-All Students Study Together in Turn at the Three Universities in These Three Regions-



Corporate internships **Entrepreneur training**

Laboratory practicums **Field studies**

Agro-Biomedical Science literacy

· Interdisciplinary thinking skills and specialized knowledge backed by expertise
· Language ability for utilizing skills

International coordination skills

· Business assessment skills for the international field
· Planning skills and multinational dialogue
· Negotiating skills and multidisciplinary and inter-industry management skills

Practical skills

· Practical skills for realizing and executing ideas
· Communications skills, including presentation and self-promotion skills

Advanced Professionals with an understanding of 'Food and Health' and the ability to manage global scale problems

<The University of Tsukuba Educational Resources>

In its Third Mid-term Goals and Mid-term Plans, the University of Tsukuba stated its fundamental goal as the "Enrichment and enhancement of its functions as a site of global education and research that aims to create the knowledge for solving global-scale challenges and to produce global professionals to direct these solutions." In this light, the University of Tsukuba is tackling educational reform as a unified entity by applying specific policies, including building an internationally compatible educational system with the ability for international collaboration and establishing international joint degree programs. In particular, as part of the selected projects in the "Top Global University Project (Top Type)" and the "Building an internationally-accepted educational system" initiative aimed at functional enhancement, the University of Tsukuba is aggressively promoting transnational collaboration that utilizes educational resources that transcend national and institutional boundaries both inside and outside of the university and Japan. By establishing internationally attractive degree programs that are in high demand by society, the University of Tsukuba is strengthening the education of global professionals with the ability to act on a global-scale.

The establishment of GIP-TRIAD is based on these Third Mid-term Goals and Mid-term Plans and educational relationship strategies, and will serve to promote the functional enhancement of the University of Tsukuba.

Having been the first university in Japan to establish a medical science research program as a master's course in medicine in 1979, the University of Tsukuba has worked to lead education and research in the related fields. Since 2006, more than 200 educators in all medical fields have provided practical education and research in a wide range of medical science related fields that correspond to the needs of society as part of the Master's Program in Medical Sciences in the Graduate School of Comprehensive Human Sciences. With the Graduate School of Comprehensive Human Sciences and the Faculty of Medicine (educator organization) at its core, this program has worked to educate highly creative professionals with the ability to develop new academic fields in the area of advanced health care, to serve as a bridge for application of research to clinical settings, and to pioneer the future of medicine in response to the challenges of a declining birthrate and aging population, improving local medicine, and preventing and overcoming lifestyle-related diseases. Similarly, in 2010 the University of Tsukuba established the 'Medical Health Sciences Innovation Building' to further strengthen education and research in these fields.

The Graduate School of Comprehensive Human Sciences focuses on education and research related to 'Food and Health' in the fields of hygiene, microbiology, and public health, thus enabling the three universities to utilize these educational resources to establish GIP-TRIAD and build an education and research system to train professionals that can comprehensively understand 'Food and Health'. During the establishment of GIP-TRIAD, the Agro-Bioresources Science and Technology Master's Program in the University of Tsukuba's Graduate School of Life and Environmental Sciences served as a cooperating organization. This program works to educate expert professionals under the keywords of 'Agriculture, Biology, Food, and Environment', wherein the Agro-Biological Science and Biosystems sub-courses, in particular, systematically educate students on everything from the basics to the latest in technology in agriculture as the foundation of food production. At the same time, this program trains practically-minded professionals with the ability to comprehensively judge the various problems, social needs, and

social receptivity that encompass these areas. With cooperation of this program, GIP-TRIAD has been able to enrich its educational content related to ‘Food and Health’.

Moreover, the Tsukuba Science City is home to multiple national research centers and pharmaceutical companies, whereby the University of Tsukuba has create a graduate school education support system in which some researchers from these entities act as collaborating educators. Utilizing its capability to readily deploy extensive interdisciplinary education and research, the University of Tsukuba is able to provide comprehensive education and research on everything from the influence of food resources on health to food resource development at the molecular and genetic level.

<Educational Resources of National Taiwan University>

GIP-TRIAD provides education and research through collaboration with the National Taiwan University College of Medicine, College of Public Health, College of Life Science, and College of Bioresources and Agriculture. The College of Medicine consists of 3,300 students and 400 educators, the College of Public Health consists of 600 students and 50 educators, the College of Life Sciences consists of 1,100 students and 80 educators, and the college of Bioresources and Agriculture consists of 3,700 students and 240 educators. Moreover, the College of Bioresources and Agriculture has experimental forests throughout Taiwan, as well as experimental farms and animal resource centers on its campus in Taipei, which are utilized for fieldwork and training activities. The College of Public Health has research fields in Taiwan, as well as Southeast Asia and continental China, which enable fieldwork focused on the East Asian region. Its campus is also equipped with a rich variety of analysis facilities for environmental substances, and the College of Medicine and College of Life Sciences maintain facilities for conducting medical research, suiting the campus to analyzing the health impacts of specimens collected during fieldwork.

Although GIP-TRIAD is affiliated with the National Taiwan University College of Medicine, educators from the College of Public Health, College of Life Science, and College of Bioresources and Agriculture also participate in GIP-TRIAD. National Taiwan University offers three graduate courses providing education and research related to 'Food and Health', namely the 'Animal Science and Technology Course', 'Food Science and Technology Research Course', and 'Food Safety and Health Research Course'. The 'Animal Science and Technology Course' is affiliated with the College of Bioresources and Agriculture, and covers the series of fields from animal husbandry through food processing, as well as fields related to nutrition and molecular nutrition. Also affiliated with the College of Bioresources and Agriculture, the 'Food Science and Technology Research Course' is Taiwan's first food science graduate program, and covers the fields of food processing, food microorganisms, food technology, health and nutrition, and food safety and hygiene law. The 'Food Safety and Health Research Course' is affiliated with the College of Public Health, and covers the fields of public health, chemistry and microbiology, health risk assessment, food safety, and food safety and hygiene law.

<Educational Resources of the University of Bordeaux>

GIP-TRIAD provides education and research in collaboration with the University of Bordeaux College of Health Sciences and College of Science and Technology. The former consists of 18,000 students and 350 educators, whereas the latter consists of 7,000 students and 660 educators. As part of the education and research of GIP-TRIAD, the INRA Nouvelle-Aquitaine-Bordeaux Centre (France) participates as a collaborating institute. INRA-Bordeaux is also jointly used as the University of Bordeaux's Green Campus. The Green Campus plays a role that goes beyond that of a simple educational resources facility. Instead, researchers with research and education guidance certification affiliated with INRA-Bordeaux collaborate with University of Bordeaux educators to instruct students and provide training instruction to students during laboratory internships as part of the University of Bordeaux master's courses. INRA-Bordeaux also operates a winery (Chateau Couhins) and vineyard in the Bordeaux region as a research and development site for wine. Like the Green Campus, this facility also serves as a site for laboratory internships. These University of Bordeaux educational resources serve as an 'integrated field and laboratory' (France) educational resource for GIP-TRIAD, and are able to provide advanced education based on the cooperative organization developed between the university and research center over the years.

GIP-TRIAD is affiliated with the Master Biology AgroSciences Bordeaux (equivalent to a master's program) under the University of Bordeaux College of Science and Technology, whereby educators from this College and the College of Health and Sciences participate in GIP-TRIAD. The Master Biology AgroSciences Bordeaux catchphrase is "Biotechnology, plant, health & food," and is involved in educating specialized professionals related to 'Food and Health'. In particular, the Plant and Human Health Benefits sub-course provides classes on the development of plant-sourced functional health components, pharmacological benefits, and food supplements, for example. Centered on the educators from this course, GIP-TRIAD also offers a master's level English program (e-learning available), and provides education related to plant-based food supplements, as well as laws related to food in France and Europe. Moreover, the Mycology and Food Safety research unit, in which University of Bordeaux educators participate, researches the influence of crop pathogen mold toxinogenicity on food and feed, and thus on the health of humans and livestock, as well as the economic damage to food and feed production as a result of crop disease and the health hazards caused by these molds. Similarly, MetaboHUB, the joint research platform for metabolite analysis at which University of Bordeaux educators are the core members, provides contracted analysis and student training for research related to 'Food and Health'.

<Strengths and Characteristics of the Three Universities Involved in GIP-TRIAD>

University of Tsukuba

- The Master's Program in Medical Sciences, which forms the core of GIP-TRIAD, is Japan's first master's program in medicine. This program consists of more than 200 educators specialized in all areas of the medical field, including basic medicine, clinical medicine, and social medicine, who thus comprise a practical education and research platform for a broad range of medical fields that correspond to the needs of society.
- The Tsukuba Science City is home to multiple national research centers and pharmaceutical companies, whereby the University of Tsukuba has created a graduate school education support system in which some researchers from these entities act as collaborating educators.
- Utilizing its capability to readily deploy extensive interdisciplinary education and research, the University of Tsukuba is able to provide comprehensive education and research on everything from the influence of food resources on health to food resource development at the molecular and genetic level. In particular, the University of Tsukuba also receives the cooperation of researchers from the National Institute for Environmental Studies specialized in "exposome" (the measure of environmental exposure over an individual's entire life, including from foods and supplements, such as functional foods), a recent area of interest.

National Taiwan University

- In addition to its academic strengths in the medical, public health, life science, and bioresource fields, National Taiwan University also offers unique fields, including the identification and assessment of traditional Chinese medicine resources, and the development and assessment of added-value foods that utilize these traditional Chinese medicine resources.
- The university possesses expansive fields that account for 1% of Taiwan's land area and provides practical education utilizing the characteristics of the region, including the securing of natural organisms that inhabit subtropical and tropical environments, component analysis, and the preservation, development, and assessment of biological resources in mountainous and oceanic regions.
- Utilizing caterpillar fungus and other fungi, the university has produced results through its cancer and obesity treatment research and through its joint food development with private companies.

University of Bordeaux

- Utilizing fields in the center of the European agricultural zone and the characteristics of a joint academic and research system unique to France called unités mixtes de recherche (UMR), a mixed research unit jointly established by universities, other higher education institutions, and research institutes, the University of

Bordeaux provides comprehensive and bidirectional education and research into everything from field environments to molecules and genetics.

- The university also provides education for research and development through collaboration with private companies in cutting-edge research fields related to the relationship between food and health, and crop production.
- The university offers a European style long-term internship program that is systematically incorporated into its master's curriculum, and is able to cultivate knowledge and experience related to practical research and development through internships at both private companies (nurseries, pharmaceutical companies, agricultural chemical companies) and public research institutes.

<Study Goals by Semester>

In accordance with the human resource development goals of GIP-TRIAD, the three universities have collaborated to define the skills to be nurtured during each semester in order to design and implement an ordered, systematic curriculum, as detailed below.

[First Semester - The University of Tsukuba]

Students study the basic skills for specializations related to health and food resources, the expertise for evaluating the benefits and safety of substances on living organisms, an entrepreneurial spirit, management skills, and specialized English skills.

[Second Semester - National Taiwan University]

Students study expertise in health and food resources, the skills to identify and solve issues in Asian societies and natural environments, and the basics of R&D and project management in Asian companies.

[Third Semester - The University of Bordeaux]

Students study expertise related to linking health and food resources and to assessing and developing food resources, the skills to identify and solve issues in European societies and natural environments, the European corporate situation and food safety policy, and career development and professional awareness.

[Fourth Semester - Chosen From the Three Universities]

Students acquire further expertise related to their research theme, enrich their career path through corporate internships, and acquire practical skills that correspond to their future after graduation.

<Guidance Plan and Role-sharing>

As students progress through the GIP-TRIAD curriculum, they attend a different university each semester, so the hosting university for the specific semester takes the lead in collaborating with the other two universities to provide student guidance in a planned manner, as detailed below, in order to help students to study in a seamless, efficient manner.

[First Semester - The University of Tsukuba]

The University of Tsukuba holds an initiation seminar when students first enter the program to ensure that the students fully understand GIP-TRIAD's mission and goals, the overall learning process, and the study goals of the first semester.

[Second Semester - National Taiwan University]

National Taiwan University provides guidance at the start of the semester to ensure that students fully understand the study goals of the second semester. At the end of the semester, students submit a proposal plan for their original research topic, which is confirmed by the three universities.

[Third Semester - The University of Bordeaux]

The University of Bordeaux provides guidance at the start of the semester to ensure that students fully understand the study goals of the third semester. At the end of the semester, the three universities jointly assess the level of achievement and hold an interim presentation meeting for the original research topics.

[Fourth Semester - Chosen From the Three Universities]

The respective university provides guidance at the start of the semester to ensure that students fully understand the study goals of the fourth semester. At the end of the semester, the three universities jointly assess the level of achievement and examine the comprehensive report submitted by the students.

< Comprehensive Report>

Under the theme of 'Food and Health', which includes maintaining and promoting health through food as well as food safety, GIP-TRIAD aims to foster highly skilled, international professionals with the expertise and practical abilities to bridge global social needs and R&D. For this purpose, the focus of GIP-TRIAD is on nurturing the skills to appropriately investigate and analyze real-world challenges related to 'Food and Health' and to make proposals with accepted practical and business-like effectiveness. Therefore, students are required to write an comprehensive report as the result of their research into their specific topic in place of a Master's thesis.

The comprehensive report adopts the same IMRAD (Introduction, Methods, Results, And Discussion) format structure as a Master's thesis. Unlike the master's thesis in standard experimental medicine and agriculture, which mainly requires students to repeat a range of reproducible experiments in a laboratory setting based on a theory in pursuit of academic originality, the comprehensive report in GIP-TRIAD emphasizes the acquisition of comprehensive skills as students move between the three countries. Specifically, GIP-TRIAD provides an understanding of the principles behind the fundamental experimental methods used in medicine and agriculture, provides field experience and negotiating skills in English, and offers basic laboratory practicums related to 'Food and Health'.

The comprehensive report is written based on the two years of study at the three universities on a specific topic that is set by each individual student from the perspective of 'proposing solutions to global-scale challenges related to food and health'. The basic structure is described below.

[1] Overall background and objectives: Significance and positioning of the selected topic, the specific real-life issues and related research areas, circumstances behind the concept based on social trends, details on the hypotheses and intended proposal

[2] Research content: Objectives of the individual investigations and experiments, approach, results analysis, and discussion (content based on the two years of study, primarily on field studies, laboratory practicums, and corporate internships)

[3] Overall discussion and prospects: Discussion of the overall research, value of the results, benefits and contribution to society based on the research results, and proposals for business plans, etc.

The following skills are required to write an comprehensive report containing this type of content.

· Expertise related to the target area and a broad perspective
· The skills to set an appropriate topic based on the social background and literature review
· The skills to propose and execute a research plan for solving an issue
· The skills to appropriately evaluate survey and experimental results, and to draw rational conclusions
· The skills to logically structure the overall report and provide clear explanations

As described above, requiring an comprehensive report as part of GIP-TRIAD is appropriate in light of the program's human resource development goals, while the content ensures an education and research standard that is equivalent to a master's thesis.

Learning outcome assessment system

（GLidD: Growth & Learning identification powered by Instructional Design）

GIP-TRIAD utilizes a rubric-based online learning outcome assessment system to evaluate the level achieved by the students in their studies. Using this system, the students answer a series of questions based on the knowledge and skills that GIP-TRIAD is designed to provide, and a mentor assesses whether those answers are adequate or not. If the answer is judged to be adequate, the student has passed that question. Because students are able to reflect upon their own learning experience through this process, this system not only assesses the level of study achievement, but also serves to support the students in their studies. The system is also employed in association with the original research topic, internships, and career support.

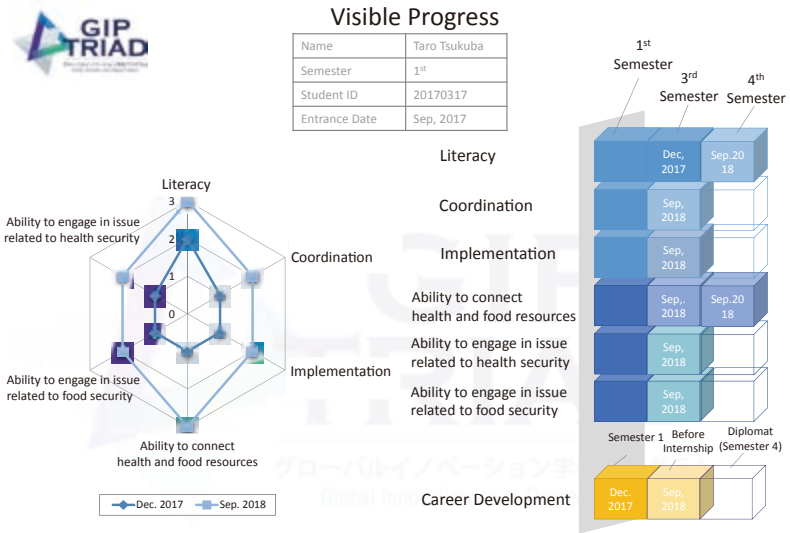
This system is divided into and used at three stages, namely, after completing the first semester, after completing the third semester, and before completing the fourth semester. The questions for each stage are primarily designed from the following perspective.

· Completion of the first semester: Confirmation of basic knowledge and skills, motivation for the original research topic, motivation for internships, motivation for career development

· Completion of the third semester: Confirmation of learning outcomes at the three universities, accumulation of content for the original research topic, support for internship selection

· Completion of the fourth semester: Cementing of the two-year learning outcomes, confirmation of the knowledge and skills required for completion, support for completing the comprehensive report

By utilizing this system and providing student guidance in this way, GIP-TRIAD appropriately assesses the level of study achieved by each student and supports students in progressing systematically and effectively through their studies from enrollment to completion.



=> After completion, GIP-TRIAD will offer the certificate

The first semester

University of Tsukuba

2017/September/1 - 2018/January/19

Initiation seminar

In September 2017, the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health was established as an international joint degree program (JDP) within the University of Tsukuba Graduate School of Comprehensive Human Sciences. Administered by the University of Tsukuba, National Taiwan University (Taiwan), and the University of Bordeaux (France), GIP-TRIAD is a joint degree program based in Japan, Asia, and Europe, and enables students from each of the three universities to study the global issue of 'Food and Health' together at the three universities.

Originally, GIP-TRIAD was only intended to have a new enrollment of 9 students (total maximum enrollment of 18 students), with the number of students participating from each university limited to three as a general rule. With the high number of talented applicants from National Taiwan University and the University of Bordeaux for this academic year, however, five students were accepted from National Taiwan University, five students from the University of Bordeaux, and three students from the University of Tsukuba, for a total of 13 students in the first class.

The students from National Taiwan University and the University of Bordeaux arrived from their respective home countries at the University of Tsukuba, where they were to spend their first semester (first semester: September to January), from September first to the ninth. The tutor system at the University of Tsukuba ensures that foreign students arriving in Japan are able to smoothly settle into their daily lives (procedures for entering the dormitory, opening a bank account, enrolling in a mobile phone plan and insurance, etc.); tutors also supported the students from the other two universities as part of GIP-TRIAD. The foreign students in GIP-TRIAD were also recommended to live in the same dormitory, allowing the students to support each other as they smoothly embarked on their new student life.



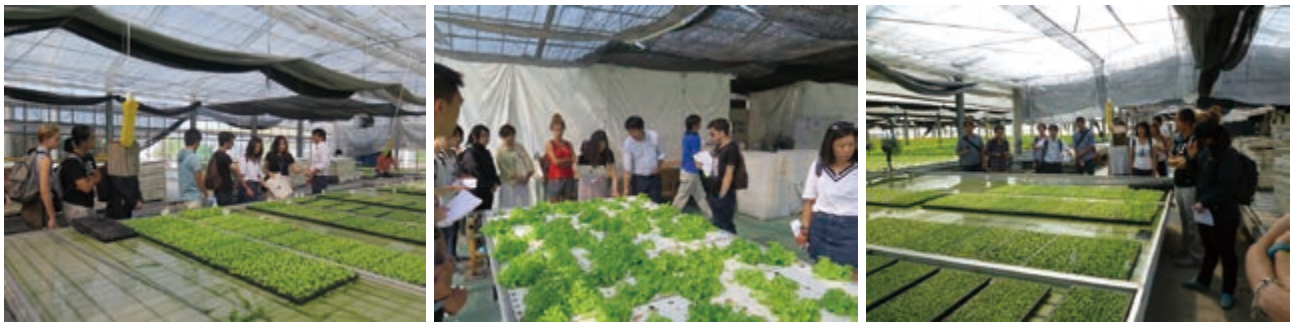


(GIP-TRIAD students, Welcome to Tsukuba!)

<Course Guidance and Research Guidance>

Over three days starting on September 11th, the students from the three universities attended an initiation seminar, at which time an orientation was held, self-introductions were made, and the curriculum, completion conditions, original research topic, and corporate internships were explained. At the same time, a social gathering was held and group work conducted to strengthen the amity between students and educators. On September 14th and 15th, students went on a two-day excursion to deepen their understanding of food safety and security. With the cooperation of Toyo Energy Farm, the students visited and toured a hydroponic lettuce cultivation facility and a solar-sharing and farming type power generation facility. On the afternoon of September 14th, the students visited Tsukuba City's Tsukuba Agriculture Research Hall, at which time an expert guide provided an explanation of the initiatives and results related to 'Food and Agriculture' at Japanese research institutes. This fieldwork not only served as a location for the students from the three universities to share the differences in their respective cultures and thinking, but also as a good opportunity to put the students at ease. From September 19th, group seminars were held to raise the awareness of issues on which the original research topics are based and to review the study content for the following 2 years, during which students learned about the concepts of Design Thinking (System, Iceberg, Mind Map), Creative Thinking (Innovation, Enterprise), and Evidence-based Thinking (Science, Logics). At this time, students were also split into three groups to begin preparing for the student presentations at TGSW2017 (subject: proposing solutions for food and health related challenges).

(General Introduction: Self-Introduction, Student Life, Curriculum, GLidD, Comprehensive Report, etc.)



(Study tour of hydroponic plantation at TOYO Energy Farm CO. LTD in Saitama)

(Tsukuba Agriculture Research Hall)

(Study tour of Solar haring farm at TOYO Energy Farm CO. LTD in Fukushima)

(Group seminar)

Tsukuba Global Science Week (TGSW)

As the pace of globalization continues unabated, we have come to witness a range of "global issues" – climate change and global warming, biodiversity, world hunger and poverty, environmental degradation, food security, human trafficking, terrorism, etc. – that call for worldwide collaboration of scientists for solutions. Tsukuba Global Science Week (TGSW) was conceived and launched as a platform for sharing the latest research results, carrying out transdisciplinary conversations, and providing an impetus for action to deal with such intractable problems.

With the University of Tsukuba as its principal host, TGSW is held annually in Tsukuba Science City – Japan's largest science city and a global hub for science and technology. The construction of the City had begun in the late 1960s as a major national project to establish a hub for research institutes and other organizations, both newly created and transplanted from Tokyo to carry out world-class research. Tsukuba Science City is now a proud host of over 30% of the country's research institutes and related organizations with more than 20,000 researchers from all over the world, engaged in cutting-edge research ranging from next-generation cancer therapy, innovative medicine, natural energy, robotics to nanotechnology, among others.

The scope of TGSW is indeed broad and far-reaching. By bringing together internationally renowned researchers, and aspiring young researchers and students based in Tsukuba and much beyond, it covers a whole variety of topics, promoting lively exchanges, regardless of borders and disciplines. It also serves as an ideal international networking opportunity for transdisciplinary, trans-organizational and trans-border collaborations.

【Dates and venues】

2017/9/25-27

Tsukuba International Congress Center

GIP-TRIAD Kick-off Symposium

Along with kicking-off the Japan-Asia-Europe international joint degree program (JDP: International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health), administered by the University of Tsukuba, the University of Bordeaux (France), and National Taiwan University (Taiwan), a joint symposium was held by the three universities during TGSW2017. Ahead of the joint symposium, an Agreement Exchange Ceremony was held, to which representatives from the three universities were invited. This symposium was held entirely in English.

[Symposium Date and Time]

September 27, 2017 9:30 - 12:10

[Symposium Venue]

Tsukuba International Conference Center, Conference Room 101

[Session Organizer]

Yoshihiro Okabe (Assistant Professor, University of Tsukuba)

[Number of Participants (participants from the University of Tsukuba and other universities, etc.)]

Total: 108 (17 presenters and 91 attendees)

Attendee Breakdown: 51 educators from the University of Tsukuba, 2 students from the University of Tsukuba, and 38 other attendees


TSUKUBA GLOBAL SCIENCE WEEK
A joint degree program newly established in September 2017 organized by the three universities in Europe and Asia
Kick-off Symposium for International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD)
国際連携食料健康科学専攻発足シンポジウム
Date: Wednesday, September 27, 2017 Time: 9:30-12:10
Venue: Conference Room 101, Tsukuba International Congress Center
https://www.epochal.or.jp/
Part 1: Agreement Exchange Ceremony
9:30-10:05
Remarks by Program Chair
Prof. Yoshito Kumagai (University of Tsukuba)
Message from Each University's Representative
President Kyosuke Nagata (University of Tsukuba)
Vice President Tei-Wei Kuo (National Taiwan University)
Vice President Vincent Dousset (University of Bordeaux)
Message from Ministry of Education, Culture, Sports, Science and Technology, Japan
Ceremony and Photo Session
Part 2: Symposium
10:10-11:00
Program Overview
Prof. Yoshito Kumagai (University of Tsukuba)
Introduction of Study at Each University
Prof. Ryosuke Ohniwa (University of Tsukuba)
Prof. Tsai-Kun Li (National Taiwan University)
Prof. Dominique Rolin (University of Bordeaux)
11:10-12:10
Student Presentation
Award
筑波大学 University of Tsukuba
國立臺灣大學
université de BORDEAUX
Registration and Contact
GIP-TRIAD Office (国際連携食料健康科学専攻事務室)
University of Tsukuba Tel 029-853-3228
E-mail gip_info@un.tsukuba.ac.jp
GIP TRIAD
Please send an email if you would like to attend the symposium. We are expecting your participation.

Agreement Exchange Ceremony

During the Agreement Exchange Ceremony, an agreement signing ceremony was conducted by the representatives of each university. Prior to the agreement signing ceremony, Yoshito Kumagai, director of GIP-TRIAD, made the opening remarks and as the representative of the University of Tsukuba, Kyosuke Nagata (president of the University of Tsukuba) made a congratulatory address. Kuo Tei-Wei (vice-president of National Taiwan University), Vincent Dousset (vice-president of the University of Bordeaux), and Hiroshi Yoshimoto (Director General, Higher Education Bureau, Ministry of Education, Culture, Sports, Science and Technology, Japan) also made congratulatory addresses.

Opening remarks by Director Yoshito Kumagai (University of Tsukuba)

Good morning everybody. I am Yoshito Kumagai, a professor at the Faculty of Medicine, the University of Tsukuba (UT), and also the director of the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health. Thank you very much for attending this ceremony today to celebrate the establishment of this program. Actually, more than three years have passed since we started the project, but it is pleasure for me to have the opportunity of mentioning a few things here. To cut a long story short, I should like to introduce just two issues.

First, let me tell you how I became the program leader. One day, our president, Mr. Kyosuke Nagata, called me into his office along with Kanaho sensei, who is now vice president. The president said that he wanted us to set up a joint degree program with overseas universities for graduate students as a critical mission of UT, and that our mission was to do it as soon as possible. Of course, I said that the school regulations at UT might differ from those at overseas universities. But, he said with a big smile: "Do not hesitate, you can do it in a free manner. That's all I want to ask of you." For partner universities, we chose the University of Bordeaux (UB) in France and the National Taiwan University (NTU) in Taiwan because we have had strong relationships with them for a long time, and these universities have earned a high reputation with respect to food and health. Therefore, we believed that we would be able to build a complementary relationship in terms of a joint degree program.

Second. During the period of three years or so, we held five international conferences, 12 TV conferences in three countries, and 20 domestic meetings to prepare GIP-TRIAD. However, we encountered a lot of difficulties along the way. Speaking honestly, I sometimes thought that establishing GIP-TRIAD was a real-life Mission Impossible—an impossible dream. One day, I took the opportunity to watch a movie titled "Mission Impossible 5－Rogue Nation." Everybody knows that Tom Cruise as Ethan Hunt is a tremendous guy－better than 007－and he mentioned in the movie that a strong bond with friends makes an impossible mission possible. Actually, I am a simple guy and an optimist. So, in line with Ethan's Hunt spirit, I never gave up on such a challenging task because President Kyosuke Nagata and UT have so many friends at, and a great friendship with, UB and NTU. Finally, we got the good news from MEXT (the Japanese Ministry of Education, Culture, Sports, Science, and Technology) at the end of June. Our next mission is the careful management of GIP-TRIAD and creating attractive advertising to recruit students next year. Thank you.

Message from President Kyosuke Nagata (University of Tsukuba)

On behalf of the University of Tsukuba, I would like to extend my warm welcome to all of you to this session, in particular for the people from overseas. I would like to express my deep appreciation for your participating in Tsukuba Global Science Week 2017 and this symposium. Furthermore, I would like to express my heartfelt gratitude to faculty and staff members of the National Taiwan University, Taiwan and the University of Bordeaux, France. They are real partners of this joint degree program. Also I have to say thank you for the people in the member of Japanese pioneer institutions and other countries for their support.

The globalized society is turbulent. There are a number of global issues. These issues must be solved with the cooperation of all humankind. To tackle these, it is vital for all universities to work in cooperation with the world's prominent education and research institutions, rather than working independently by themselves. To this end, trans-border cooperation that transcends the barriers between institutions and boundaries between countries is essential. With this understanding, our university is now working to develop the Campus-in-Campus concept, and in September 2015, we launched joint initiatives with the National Taiwan University and the University of Bordeaux.

The University of Tsukuba's cooperation with National Taiwan University and the University of Bordeaux began with collaboration and cooperation between individual researchers, gradually was bringing the fields of medicine and agriculture, and finally has expanded in the entire university in the case of university of Tsukuba. This cooperation has already achieved a number of results in science and technology fields, and at present, we are further deepening cooperation among the three universities by the establishment of this new joint degree program. As far as I heard, this group held their 1st International Conference for Global Innovation Joint-Degree Program in September 2014 three years ago as Profesor Kumagai already mentioned, and they made a lot of efforts to establish the joint degree program. As Professor Kumagai also noted, it may have started as a sort of "mission impossible", but the three universities have now realized. This International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health is the first joint degree program in this field in Japan.

All of the students in the program will proceed with their study and research together by commencing starting at the University of Tsukuba, then moving to the National Taiwan University, and then you are going to be at the University of Bordeaux, in this order.

Probably you will find the field in which you are interested during this travel. More importantly, you will have here real friends. If you have hard times, at that time somebody will help you, which is a real friendship. Of course, science and technology has to be going, but with real friendship, you will probably have confidence to play alone in this turbulent world.

Students will study under the guidance of the faculties of the three universities, and they will undergo joint assessment by the three universities for their degree. Moreover, the degree the students receive will be conferred in the joint names of the three universities. We have high expectation in that the students from Japan, Taiwan, and France in this program will be very confident.

In closing, I would again like to express my gratitude for the support and cooperation we have received from the many people and various institutions, in order that we have realized this program. I would also like to express my high hopes for this program as it gets ready to take off.

Finally, I would like to express my sincere wishes to all of those participating in Tsukuba Global Science Week 2017 and this symposium for every success.

Thank you for your attention.

Message from Vice president Kuo Tei-Wei (National Taiwan University)

President Nagata, Vice President Dousset, President Yang, and distinguished guests and colleagues, it really is a pleasure to be with you at the GIP-TRIAD Kick-Off Symposium. This is undoubtedly a meaningful milestone marking the collaboration of our TRIAD colleagues. Over the past few days, we have already received a very warm welcome from our friends here. We have enjoyed that.

The GIP-TRIAD Program began in September and seeing all the ongoing projects and programs, we feel very proud of paving the way for brilliant higher education to be developed in the world, and also of making a contribution to millions by better forging our connected partnership. In 2014, TGSW was established, and as former President Yang said in his remarks, all three universities had an ambitious plan to help educate people better, to research better and also to contribute better to society. I am very proud to announce that after three years, in 2017, we are on the right path and heading for a better world and making huge progress through our GIP-TRIAD Program. Indeed, the process of establishing the program has not been an easy job; however, it has been a great honor for our university to participate in this program and to discuss new collaboration models.

Through our new student mobility coupled with strong faculty support, students are benefited from cross-culture and cross-discipline collaboration. I would like to thank President Nagata, Professor Kumagai, and also our partners Vice President Dousset and Professor Dominique Rolin. They all played very important roles in making this TRIAD triangle happen. Without exception, excellent teams from all three universities have been working so very hard. I would like to thank, especially, Professor Tsai-Kun Li and Professor Hsinyu Lee for taking on such a challenging job and eventually overcoming all the challenges. The establishment of the GIP-TRIAD Program has started a new chapter in our promising partnership. None of these achievements would have been possible without all the efforts and supports over the past years. Back in 2015, a letter of intent and joint programs among the National Taiwan University, the University of Tsukuba, and the University of Bordeaux was signed. Since then, thanks to two years of effort, we can foresee a program in which, without question, our universities have assumed an influential leadership role in higher education. As for the students in the program, I am sure that you will have a very fruitful experience this year at the University of Tsukuba and that you are fully prepared. We are looking forward to hosting you next year. Thank you.

Message from Vice president Vincent Dousset (the University of Bordeaux)

Thank you very much dear guests from all the universities that are here, and our hosts from the University of Tsukuba. I am so happy to be here again. I have a message from President Manuel Tunon de Lara for President Nagata and President Yang thanking them very much for their cooperation in this International Master's Program. President de Lara told me to say that although he could not attend the meeting today, he was sending warm thanks to you all because of this achievement.

Second, there is another message from President Manuel Tunon de Lara to the students in which he says: "Welcome to the University of Bordeaux, to which you will have the chance to come, probably nine months or ten months from now. You are very welcome, and we have a welcome center that will help you set up in Bordeaux." These are the two messages that President Tunon de Lara wanted me to give you. Now I have a special message for Professor Kumagai. I have to tell him that in my dreams, I have tried to identify myself with Tom Cruise, but as soon as I do so, I see Professor Kumagai and I say, "Okay, it's too late, somebody's already taken the part of Tom Cruise." Professor Kumagai, the mission is possible and we can see this already today.

I have another message, this one for President Nagata. President Nagata, you are an unbelievable architect, and I understand why you said, "Professor Kumagai you should do this and do not think about it," this is because you are right on target. In particular, I want to say that we are involved in two major programs with the University of Tsukuba: the GIP, which is a big success, and the Campus-in-Campus (CiC) Project, which we are currently managing. I must say that these two programs are in the vanguard of the future of collaboration between small universities and big universities. I am really glad that you had this vision, which for us is much larger than the European vision that had already gathered universities together, but this is on an international scale. I think that first, to have Master degrees with joint universities, and also for students to have the ability to move wherever and wherever they want to move－as in the CiC Project－I think this is beautiful and this really is the future; and I think our students want this and we will achieve this, so we will increase of course those programs into one in the future. I think you have been a great architect for that.

I have another message for my colleagues from Bordeaux because I want to introduce them to you. The first comes from a little story－like Professor Kumagai here－but I have a story. When I started out as vice president in charge of international affairs, it was in January 2008, and soon after I took up my position, the president said to me, "Oh, you have a meeting at the Agricultural Science Faculty to sign an agreement with the University of Tsukuba and the National Agricultural Institute of Research in France." I said, "I do not know anything. I am not able to speak." "Oh, you have to go," he replied. I proceeded to President Nagata. I had nothing to say and I just

took a car and went there and I met with Professor Ezura and immediately I saw that with Professor Ezura, we could have really great contact and that they were behind him, and I also saw the relationship that he had already established with Professor Rolin and many of the others, I am not going to tell, that it will be a fantastic future. We signed, with pleasure, an agreement with the University of Tsukuba and the University of Bordeaux for the agricultural site. Professor Ezura, can you stand up because I think you need to be thanked for that. Then, we had the chance to welcome a post-doc, his name is Professor Kentaro Mori and he came from the University of Tsukuba. He was very dedicated to the work between our universities and now I am telling the students about that. A nice story about Professor Kentaro is that he is a professor at the University of Bordeaux and has full tenure. He has been there for 10 years already, so congratulations Professor Kentaro for all the work you have been doing.

Next, I want to say that the collaboration between the agricultural school and plant biology and research and the University of Tsukuba has been very strong because of many people. And I would like the third row to stand up, which are all the French that are here and, especially, Professor Olivier Lavialle, the director of the Bordeaux Science Agro School, which is the engineer school in Bordeaux for agriculture. Professor Olivier Lavialle has also been an architect of our project to get to this stage. Thank you Professor Olivier Lavialle and also I thank the representatives from the University of Bordeaux and those from the Bordeaux Science Agricultural School.

I am not going to be much longer, but I really want to thank our partners from the University of Tsukuba and from the National Taiwan University. I address a special thanks to Luisa and to Caroline because they have been working on the promotion of this GIP Project and of the CiC Project all over in the world. Sometimes we meet in some part of the United States or in Europe or in Asia to promote this program. Thank you again.

I have a word or two for the people that are working everyday on this program, of course Professor Kumagai, Professor Rolin, my two friends Professor Hsinyu Lee and Professor Tsai-Kun Li, and you three, please stand, all five of you.

My last word is to the students. Work hard. Do not be disturbed. Forget the Internet. Just work very hard. Good luck.

Congratulatory Message from Hiroshi Yoshimoto

(Director General, Higher Education Bureau, Ministry of Education, Culture, Sports, Science and Technology)

Today I would like to express my deep congratulations on the establishment of the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health at the Graduate School of Comprehensive Human Sciences here at the University of Tsukuba.

At a time like today when humankind is faced with the daunting challenges of improving and maintaining health and ensuring the safe supply of food on a global scale, I firmly believe it is significant to educate and train highly skilled international professionals in food and health through cooperation with University of Bordeaux in advanced research fields on the relationship with food, health and crop production, with National Taiwan University in distinctive educational fields utilizing the strength of medical research in traditional herb medicine resources.

In the future, I look forward to further development of the University of Tsukuba, and I ask all of you present here today for your continued support and cooperation in all of the university's endeavors to enrich education and research.

Hiroshi Yoshimoto
Director General, Higher Education Bureau, Ministry of Education, Culture, Sports, Science and Technology
September 27, 2017

(Signing ceremony)



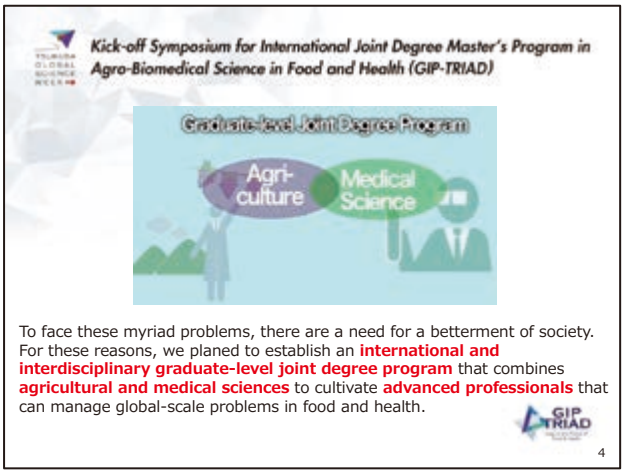

(Group photo)

Symposium

During the joint symposium held by the three universities, Program Director Yoshito Kumagai provided an overview of GIP-TRIAD, and the educators in charge of the program at the three universities (Associate Professor Ohniwa Ryosuke of the Faculty of Medicine at the University of Tsukuba, Professor Tsai-Kun Li of National Taiwan University, and Professor Dominique Rolin of the University of Bordeaux) introduced the study content at each university. During the student session, each of the student groups made excellent presentations and received many questions from those in attendance, making for a lively session.

Program Overview
Director Yoshito Kumagai

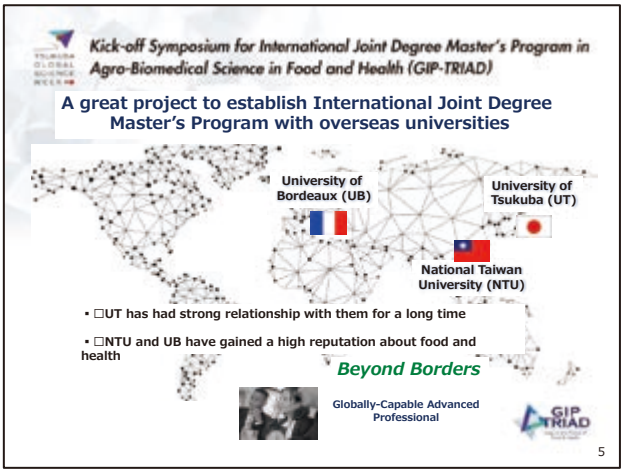
Let me summarize this program. I will tell you why we informally call it GIP-TRIAD. This was indicated by the green color keyword for the establishment of the GIP-TRIAD Interdisciplinary, Great Mobility, Friendship and Good Luck as well, and to be bolder. And also, as I have mentioned, Mission Possible—not Impossible—is also key.



There are so many global issues and, in particular, food and health are two issues central to human existence and they are inseparable in their relationship as embodied by the saying "ishoku-dougen" meaning "food is medicine," and this holds the key to realizing a society in which illness is prevented before it occurs. Food-related health problems such as obesity and diabetes, and lifestyle-related diseases, threats to food security and the increased costs of major issues such as medical care are just some of the many challenges society now faces.

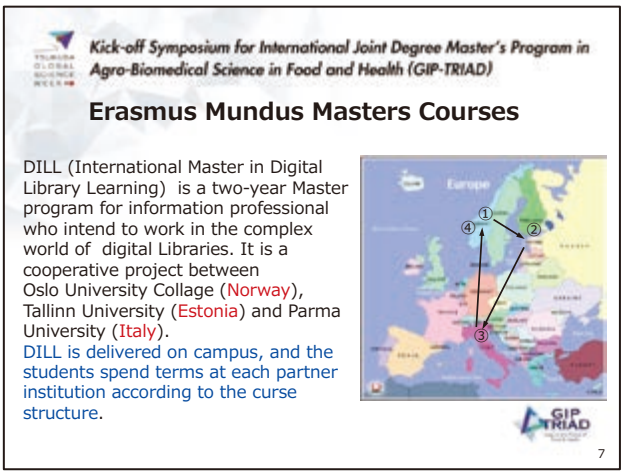
To tackle these myriad problems, there is a need for the betterment of society. For this reason, we plan to establish an International and Interdisciplinary Graduate-Level Joint Degree Program, like GIP-TRIAD, that combines

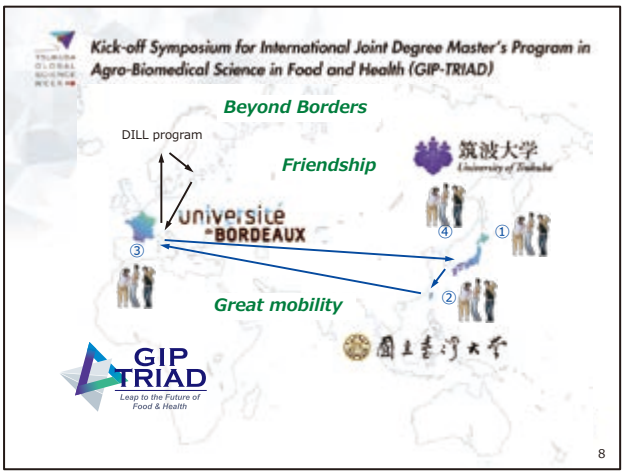
agricultural and the medical sciences to cultivate advanced professionals like GIP-TRIAD students who can manage global-scale problems in food and health.



We, the University of Tsukuba, have made an agreement with many universities in more than 50 countries. One of our missions is to establish an International Joint Degree Master Program with overseas universities. For our partner universities, we just chose the University of Bordeaux (UB) in France and the National Taiwan University (NTU) because we have had a strong relationship with them for a long time. In addition, these universities have gained a high reputation with respect to agriculture and the medical sciences, or in other words "food and health," so as to cultivate globally capable advanced professionals.

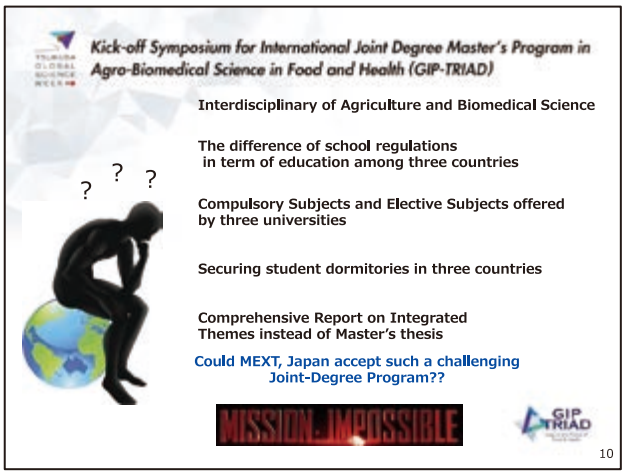
To achieve such a mission, we held the First International Conference of GIP-TRIAD on September 30, 2014, in Tsukuba and the second one on February 15, 2015, in Tokyo; but we could not organize very much, unfortunately.





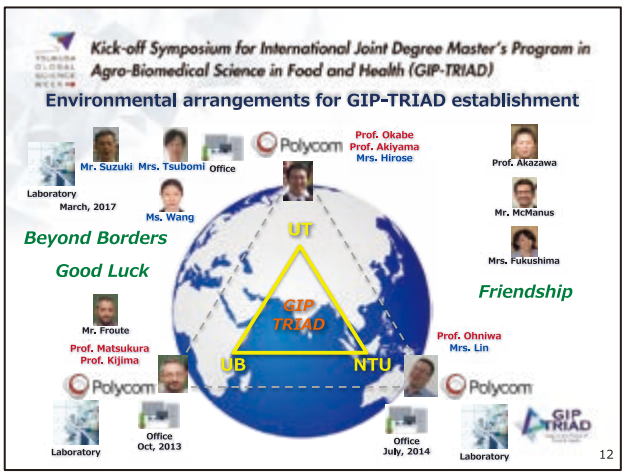
I studied joint degree master programs in detail and found the Erasmus Mundus Masters Courses. I was so impressed by these Master courses because that was the first time for me to come across Master courses with such mobility. For example, DILL, which is an Erasmus Mundus Master Course, is delivered on campus and the students spend time at each partner institute such as Oslo University College in Norway, Tallinn University in Estonia, and Parma University in Italy; and then the students complete their Master's thesis in the fourth semester. As a reference system, I simply proposed this to GIP-TRIAD members.

First, GIP-TRIAD students will gather in Tsukuba and then move to Taiwan, followed by a move to France. In the case of UT students, they will be back in Japan for the fourth semester, so the mobility of GIP-TRIAD is greater than that of the global program.



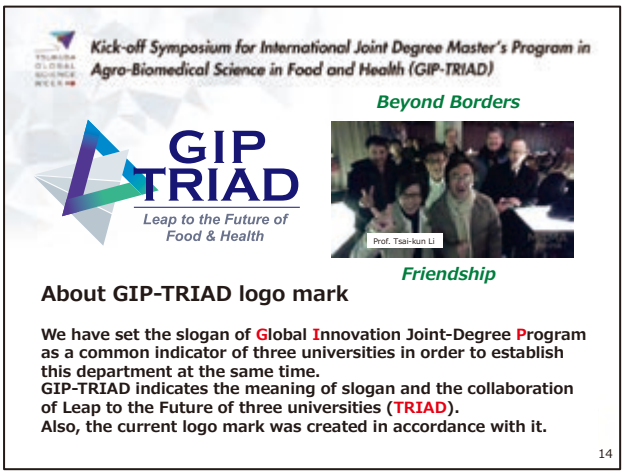
Most fortunately, the signing ceremony for the letter of intent for the establishment of GIP-TRIAD was suddenly held at TGSW2015, along with the ceremony for Campus in Campus. That was a miracle for us, and we somehow managed to start organization of GIP-TRIAD.

However, we encountered a lot of difficulties, for example, the interdisciplinary organization of agricultural with biomedical sciences, which was kind of a headache. There are differences in school regulations in terms of education among the three countries and we have to determine the compulsory subjects and the elective subjects offered by the three countries, also we have to secure student dormitories in three countries and then there is the question of compiling a Comprehensive Report on integrated themes instead of a Master's thesis, which may or may not be possible. My anxiety was could MEXT, having a conservative system, accept such a challenging joint degree program? As I already told you, at the time I thought that it may be impossible. That was my frank opinion at the time. But we resolved a great many challenges by holding the third, fourth and the fifth international conferences of GIP-TRIAD in Tsukuba, Bordeaux, and Tsukuba again.



We also established an environmental management structure for GIP-TRIAD. We opened and set up a laboratory and office in Bordeaux in October 2013, and one in Taiwan in January 2014.

In addition, we set up the Polycom system for video conferences among the three countries at that time.

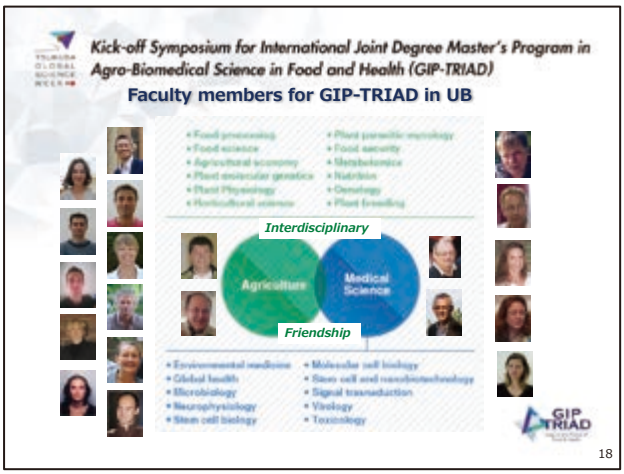


We also acquired a space for GIP-TRIAD during the renovation of the Medical E Building, consisting of a study room for students, an office, a laboratory equipped with many facilities, a meeting room, six teachers' rooms, and two lecture rooms here and also a lounge where we can have a meal and where we can hold parties.

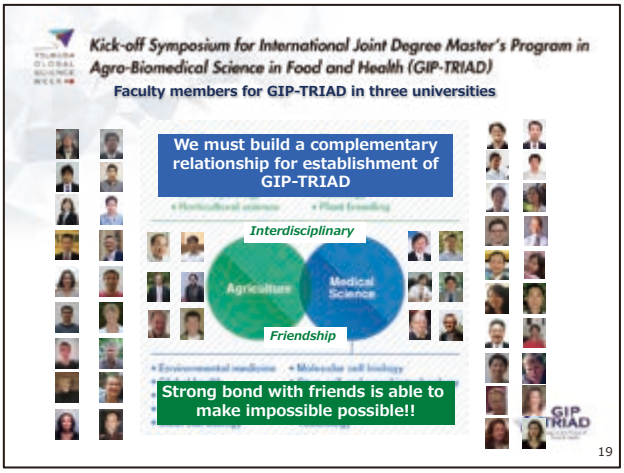
Here, I have just showed you the GIP-TRIAD global map. Let me tell you how we decided upon the slogan of GIP-TRIAD. After the Fourth International Conference of GIP-TRIAD in Bordeaux, we went to a cool restaurant recommended by Vice President Vincent Dousset, and everybody will understand we drank plenty of wine, but we also started thinking about a slogan for GIP-TRIAD, and Professor Tsai-Kun Li proposed "Leap to the Future." After that, we just modified the final version a little bit to "Leap to the Future of Food and Health," which is now the slogan of GIP-TRIAD.

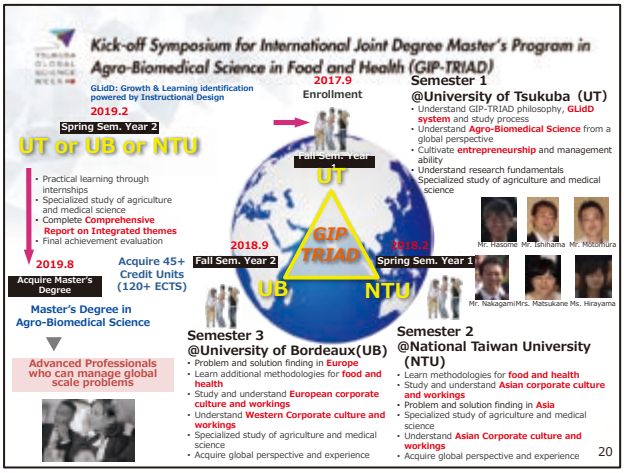
We also created the GIP-TRIAD website and we have published a lot of information about the program outline and related topics on it. There you can see questionnaires from the students and companies as well. We also made a special movie to let you understand the concept of GIP-TRIAD in an animation format.

One of the big challenges is the interdisciplinary organization of agricultural and medical sciences. These are the faculty members for GIP-TRIAD in UT. The balance of the number of people between the two departments is very close.



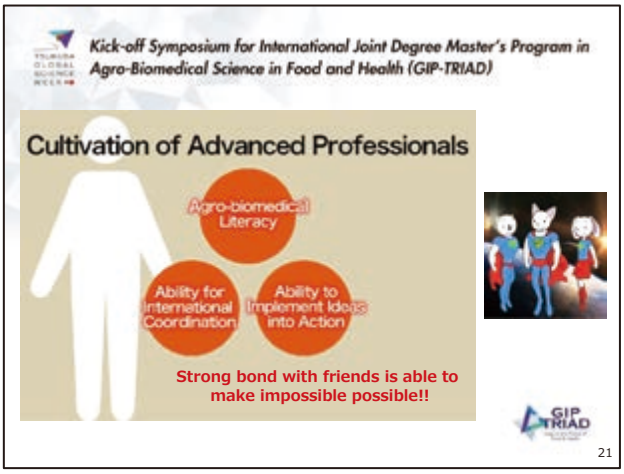
In the case of NTU, however, the number of people in medical science is greater than those in agriculture. Conversely, the balance in UB is opposite to that of NTU.





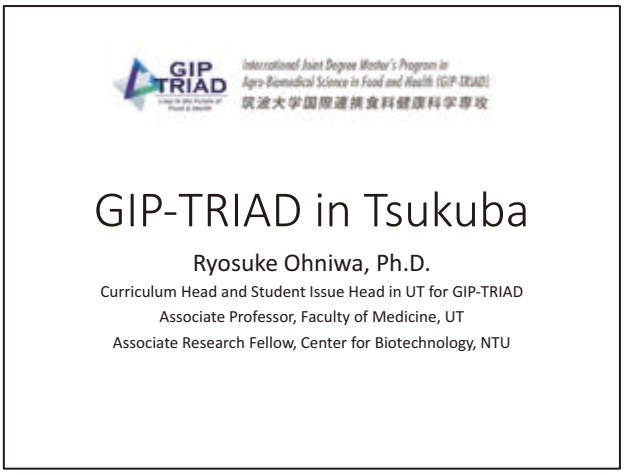
But when we put all GIP-TRIAD participants into the same slide, the balance between agriculture and medical school is very close, indicating that we are able to build a complementary relationship for the establishment of GIP-TRIAD.

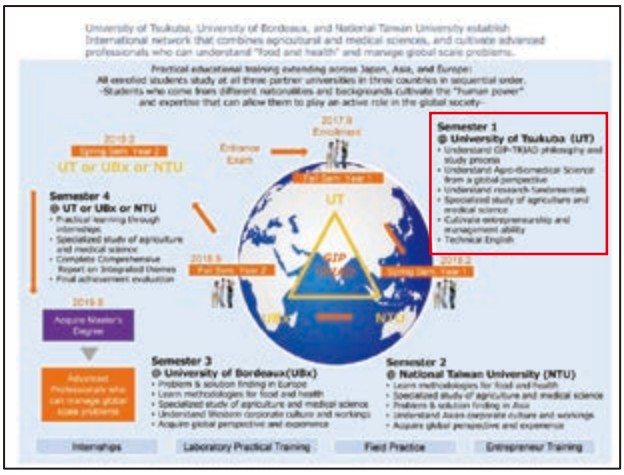
This is an overview of GIP-TRIAD. Actually, all the students gathered here at the beginning of September and studied very hard and attended the Initiation Seminar for three days and went to a fair for an excursion. They will take a subject titled Anthropology or something and then move to NTU and study hard to understand Asian corporate culture and work habits and also something better. Then, they will move again to Bordeaux in France, and study and come to understand European corporate culture and work habits. They will also take basic subjects as well. Finally, the students can move on to various fields. For example, they can stay in Bordeaux to take an internship or go back to Japan in the fourth semester. Finally, they will have to complete the Comprehensive Report on Integrated Themes instead of a Master's thesis.



We sincerely hope that GIP-TRIAD students will become, and must become, advanced professionals with agro-biomedical literacy, abilities in international coordination, and the ability to turn ideas into action. To our GIP-TRIAD students, do not forget a strong bond with a friend can make Mission Impossible possible, as we have already done. Thank you.

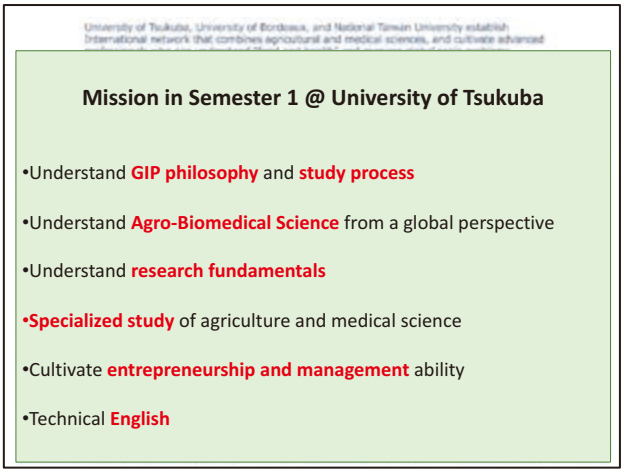
Introduction of Study at the University of Tsukuba
Associate Professor Ryosuke Ohniwa





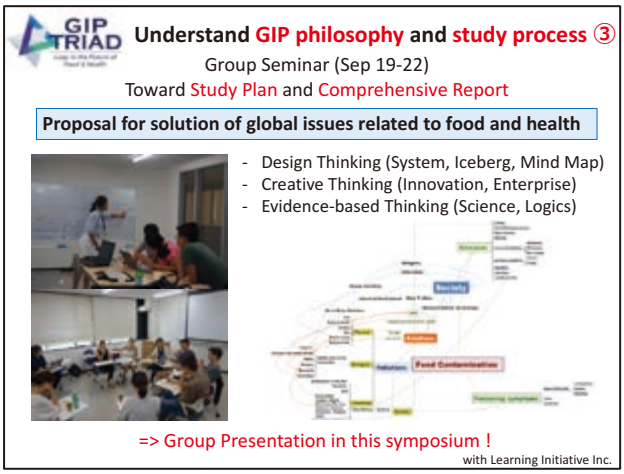
I am Ryosuke Ohniwa from the University of Tsukuba's Faculty of Medicine. In Tsukuba, especially in GIP-TRIAD, I am in charge of the curriculum and student issues. Today, I would like to briefly introduce what students will study at Tsukuba.

We have GIP-TRIAD students in Semester 1 and what they need to study during this semester.



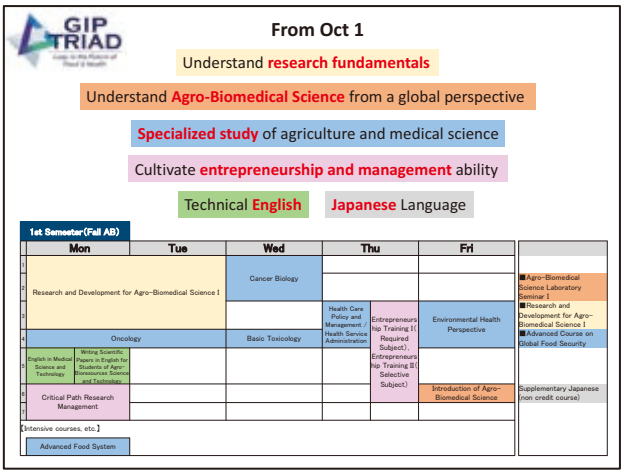
This slide is the study map. One is Understand GIP philosophy and the study process. Another one is Understand Agro-Biomedical Science from a global perspective. Third, Understand research fundamentals. Fourth, Specialized study of agriculture and medical science. Fifth, Cultivate entrepreneurship and management ability. Finally, Technical English.

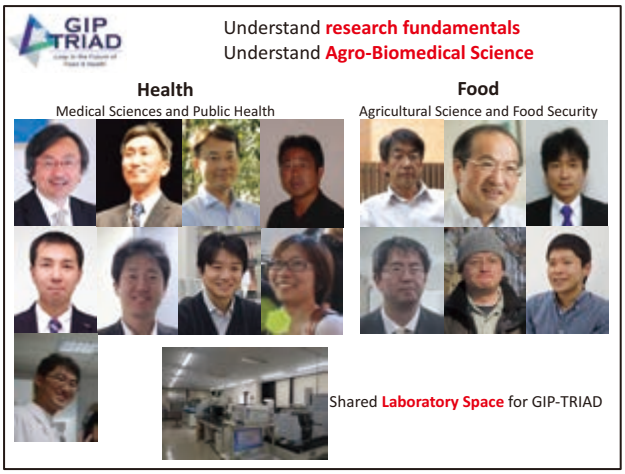
We studied this Master Degree Program on September 11, from the start of the seminar through to introducing the curriculum of GIP-TRIAD and the requirements to help lead this program. Also, to add student team building, we asked the students to prepare a GIP-TRIAD promotion material, actually the promotion poster here.



Also, we have already experienced a kind of fieldwork. We visited the TOYO Energy Farm to understand hydroponic lettuce cultivation in Saitama Prefecture. We also visited Fukushima Prefecture. Fukushima is well known for the nuclear power plant incident of 2011. That is very closely related to food security and food safety. Those are the kinds of issues that are really important to our program, so together we visited there, some 20 kilometers or so from the nuclear power plant I think. I believe the students felt something from the area. Also, we visited the Tsukuba Agricultural Research Hall and stopped by a michino-eki. This excursion was for understanding food security and safety because from October we have lab work related to medical science; but in Tsukuba, we may not have opportunities to go out and understand the situation first hand, so we visited there.

Later, students will give a presentation on a proposal for solutions to global issues related to food and health. Actually, this proposal is required to graduate this program. They need to prepare a proposal about this issue at the end of the program. In point of fact, GIP-TRIAD is interdisciplinary and a type of trans-border program and it is a little difficult to understand what we can study in this program. That is why we asked the students to make a presentation about the issues and we expect that, through this presentation, they may come to understand what we can study in GIP-TRIAD and what we can achieve through GIP-TRIAD and also what students can be after graduating GIP-TRIAD.

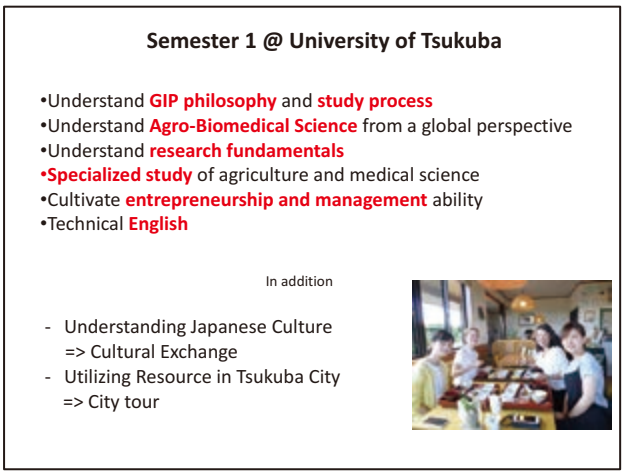




Other issues that I understand are research fundamentals, agro-biomedical science, specialized study, entrepreneurship and management, technical English, and the Japanese language. Now, we have already said that

the course starts on October 1st. After this symposium, the students will start studying such issues by taking the courses.

For a greater understanding of research fundamentals and agro-biomedical sciences, we have professors here for both health-related medical science and public health, and also on the food side, agricultural science and food security. Also we have shared laboratory space for GIP-TRIAD. If the students want to do experiments, work on experiments, they can use this facility.



We have a course on entrepreneurship and, in addition to cultivating entrepreneurship and management ability, we also enjoy collaboration with companies and these companies are now supporting this, and if students choose an internship in the fourth semester in Japan, they can contact these companies, and they can ask for internship experience there.

Finally, again, what you can study in Tsukuba is the GIP philosophy and study process, agro-biomedical science and research fundamentals, specialized study, entrepreneurship and management, and English and Japanese. In addition, we have students from three countries, so we expect to have cultural-exchange activities. Actually, this is a bento meal we ate together during the excursion. How was it? Good! Right? Experiencing eating as well. I think that we expect the students to really feel Japan. Another point, Tsukuba is the largest science city in Japan. And we would like you to utilize the resources in Tsukuba City. From October, not only as Vice President Dousset said, "Work hard," but also we expect students to play a lot in Japan. Thank you very much.

Introduction of Study at National Taiwan University

Professor Tsai-Kun Li

First, I would like to thank the leadership of the three universities for helping this program and making everything possible to date. Also I would like to congratulate all of the 13 students. We have to remember these faces, they are over 100s faculties who are working on this program and making these things possible. Since we are in a phase of possible things and we at National Taiwan University are representing Taiwan, including four colleges, two professional schools, and two university research centers and through this program we are aiming to create resources that fulfill students' dreams in the different disciplines in which they want to engage. Here, these are the Taiwan Characters for "creativity" and "building", so it is: you create and you build, you make it happen. We are focusing on food and health for the future and you can plan the triple-plus enthusiasm that we created. By the way, my name is Tsai-Kun Li and people call me TK for short.

This is our university and this is the university library, which is the biggest educational library in Taiwan. Now you might be wondering what 1% means. We are the leading university in Taiwan and we own 1% of the land of Taiwan. We are the second-largest land holder in Taiwan. Our students account for the top 1% of Taiwan's students, and we have a great pride in that.

When you enter NTU, you will see a boulevard of palm trees. This is our entry site.

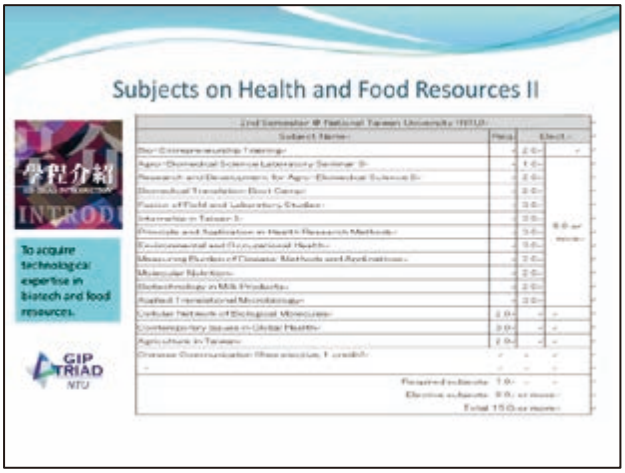
This is the main entrance site. This is the palm tree boulevard. We have very good teaching facilities.

This is the social science building, the library. A lot of people are studying here. There are many great projects here.

What I want to show you here is that NTU has 11 colleges, four of which are involved in this program, which is food and health related, including our medical college, public health, agriculture and bioresources, and also life science. There are three professional schools; two of which are in this program, one is the School of Pharmacy and the other is the School of Dentistry and, in addition, there are many other incubators and a lot of university-level research centers involved. Two heavily involved research centers are the Center for Biotechnology and the Center for Genome Medicine. Our global ranking is very high and also we have a world-class international research center in Taiwan.

These are the colleges I introduced, and they are distributed in different places. Most of them are actually on the main campus. Agriculture and Life Science are on the main campus, and on the medical campus, there are the College of Medicine linked with the Hospital, and the College of Public Health and the School of Dentistry as well, as the Center of Genomic Medicine.

I think this slide has been shown many times. We try to create a triangle and I believe a triangle to be unbreakable.

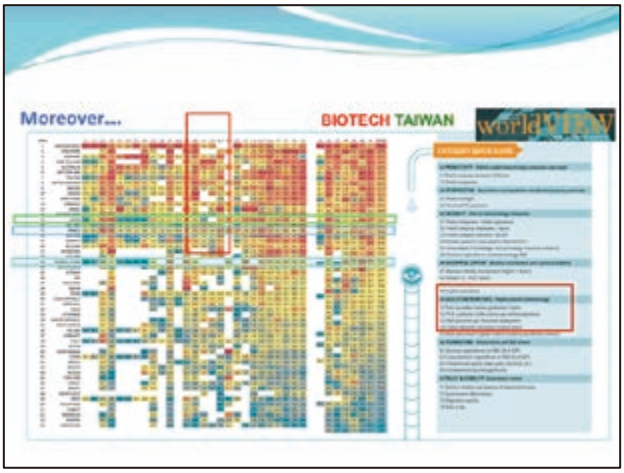


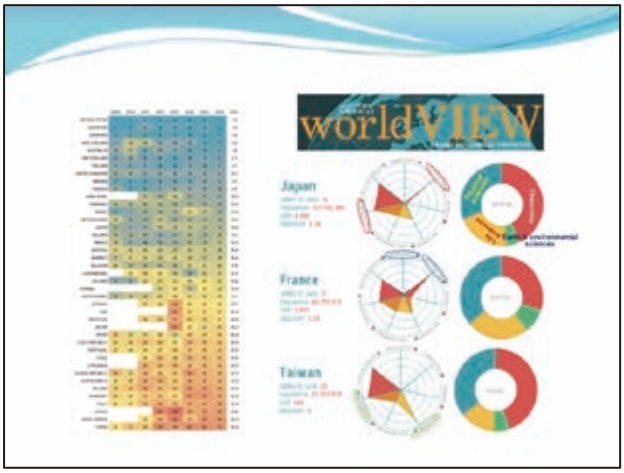
We need to understand the NTU GIP-TRIAD faculty and, as for students, we welcome you with a smiling face. You are warmly welcomed to any faculty you are interested in so as to join the teams of NTU GIP-TRIAD members and, students, you are welcome to look into any faculty that might fulfill your dreams and that you think would be a good partner or lecturer throughout the world.

These are some of the subjects inside. It is probably too small, but some of them are designed to be, for example, the Boot-Camp. We will do a case study and so on for that, we have built up the global network for biotech-related university entrepreneur ecosystem.

Here are some of the Internet resources, which you can see in your printouts and, in order to prepare the students who are facing the challenge of coming to Japan, we started our vision and supervision after your enrollment.

Also we have asked Kumagai-san to come to visit Taipei to see the students and approve those we have enrolled, and we will continue to discuss and discuss to improve this program. We also have other global directors come in to consult about career plans and so on, and talk to the students about what they want to do. The spectrum of students in our selection come out to be very diverse and they all have different dreams—nursing, medical technology, physical therapy, hospital management and also environmental chemical engineering.



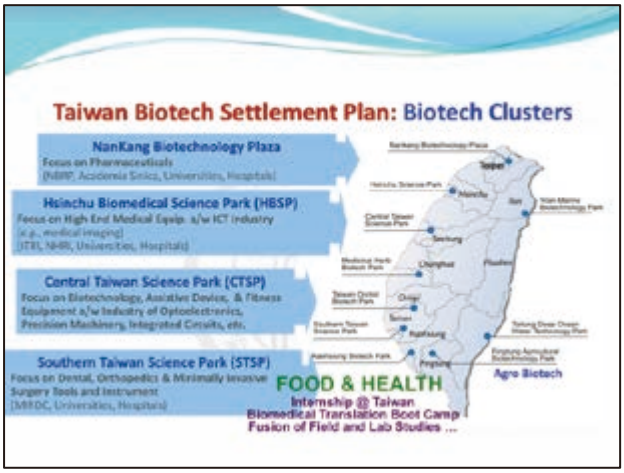


I would like to introduce Taiwan a little. Taiwan is fairly small, but it is really good in terms of biotech development. I borrowed some of the slides from our president, when he was talking about this. This is in 2016, when Biotech Taiwan was rated 23rd.

There are some details here. I did a comparison study of Japan, France and Taiwan. Japan is ranked 15th, France is 17th, and we are 23rd. I am trying to highlight the strengths of agriculture science, maybe you can see here, there are some overlapping parts, but there are also different strengths, so through these collaborations among our three countries, I believe that we can learn from each other and benefit each other through the initiative of this joint program.

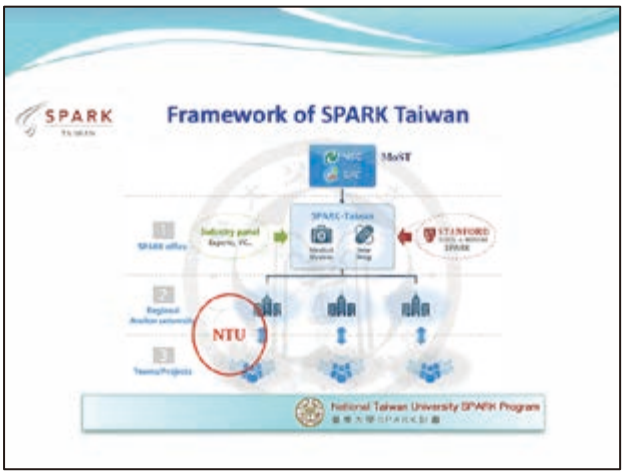
There are many examples of the strengths of Taiwan in biotech development. For example, we are a representative population in East Asia, and one thing about Taiwan is that our national health insurance plan covers 99.9% of the population, so everybody has this national health insurance record and all the data are institutionalized, so you can study in the department a representative population for Asia.

We have established clinical trial consultants and improved efficiency through the central IRB process and we strive to improve health.



The Taiwan government has initiated many programs to aid this development and has set up—as one of the five priority plans—one is in the biomedicines and also one for health. There are actually two areas: one is on new agriculture, the other is on biomedical technology development.

There are many places, so I will try to use the slides to show them. We try to incorporate our efforts and also our curriculum into present-day Taiwan. In Taiwan, at the moment, biotech clusters run from north to south along a high-speed railway, like a Shinkansen. There is NanKang Biotech, which is focused on pharmaceuticals and here is the Hsinchu Biomedical Science Park. NTU is heavily involved in these clusters and there is high-end medical equipment also, ICT, there, in the center part and also down south, there is Agro-Biotech in the Pingdong area. We are thinking that maybe we can go along the high-speed railway and go down here to have an internship that fits what you need. A lot of communication is required to set this up. We now offer internships in Taiwan and also the Biomedical Translation Boot-Camp, as well as a fusion of field and lab study courses in Taiwan.



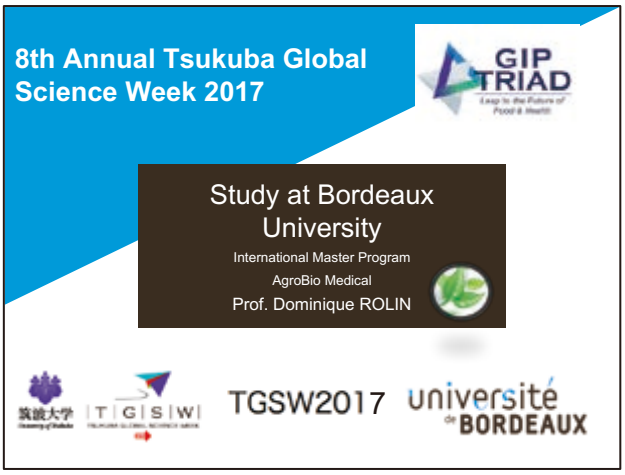
There are a lot of resources being engaged in NTU, as we are trying to create an education, innovation, and entrepreneurship relationship in Taiwan thus creating an ecosystem. There also are clinical trial centers. We are ranked 6th in Asia in agriculture medicine, life science, bio-agriculture and also there is the NTU Medical School and the NTU Center for Genomic Medicine, and the Center for Biotechnology and other Research Program. Also we have a lot of specialized projects in being funded by the Minister of Education to cultivate Ph.D. students in industrial trends. In addition, there are various programs such as live on-job training for promoting center programs

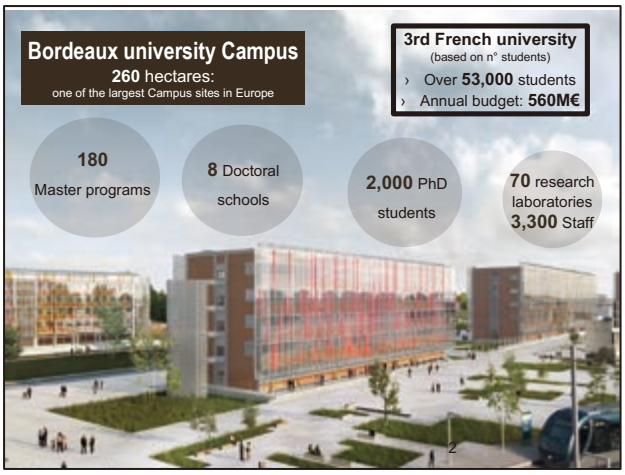
for interdisciplinary biotech industries. Another is the NTU Garage Program that encourages students to build their own prototypes on campus. They have access to a space, seed funding and can also seek funding, and once they have an idea, they can bring the idea to reality. Also there is the NTU SPARK Program, which trains the faculties, so each faculty has a group and incubation budget to realize they know how into products.

Once students develop ideas, we turn the ideas into commercial work projects, which are collaborative projects. In Taiwan, it is called "SPARK Taiwan." Also this is a collaboration effort with Stanford University and an industrial panel and experts and a VC, and myself as the PI for the NTU SPARK Program, and I am also training in the SPARK Program. It is just like this joint master program, I am learning while I am trying to help out and trying to coordinate resources.

I would like to thank you for listening, and welcome to Taiwan.

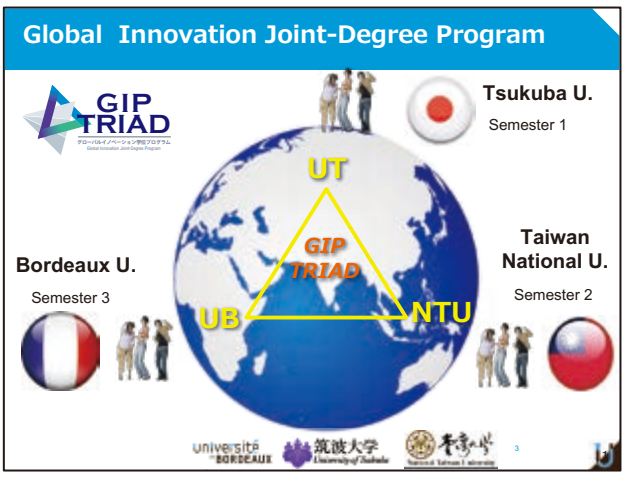
Introduction of Study at University of Bordeaux
Professor Dominique Rolin





Good morning to everybody. I am going to do a short introduction. I would like to express my happiness to be here because it has been a long journey with our colleagues, who are now our friends. We have shared difficulties, we have found solutions, we have supported our leader to face the next trouble. But now we are here and we are very happy. And I would like to thank the people from NTU, from Tsukuba, but also I would like to thank the people from Bordeaux because I am here to speak for them. But it is a team spirit, and people are working with me, and as you see from the faces, they are happy faces.

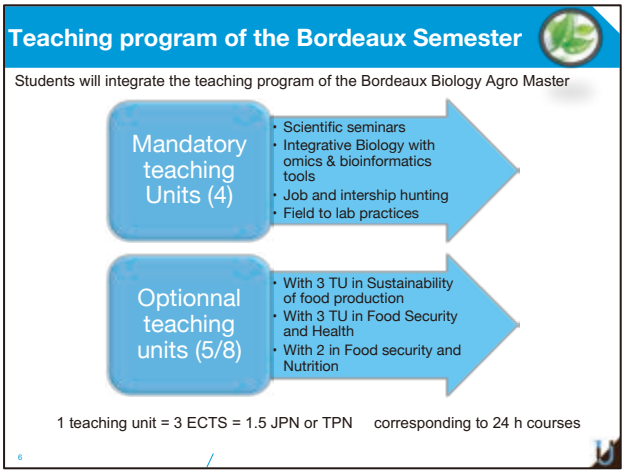
The second message is for the students. I would like to welcome you to Bordeaux, and I would like you to understand what you will find there. The first thing you will find is an elegant and beautiful campus and a big university full of students. There are 53,000 students everywhere, and also you will meet a lot of foreigners too. It is important for you to know that the campus is very big and the city is very beautiful. Public transportation will take you downtown and you will have great food and great scenery in this 18th-century city.



You already know this, you will spend six months here, six months in Taiwan, and then you will be very strong groups with 13 people who have a lot of experience already and when you will arrive, the French team will be ready

to welcome you. But before that, if you want to know any information about the program, you have two ways of doing so.

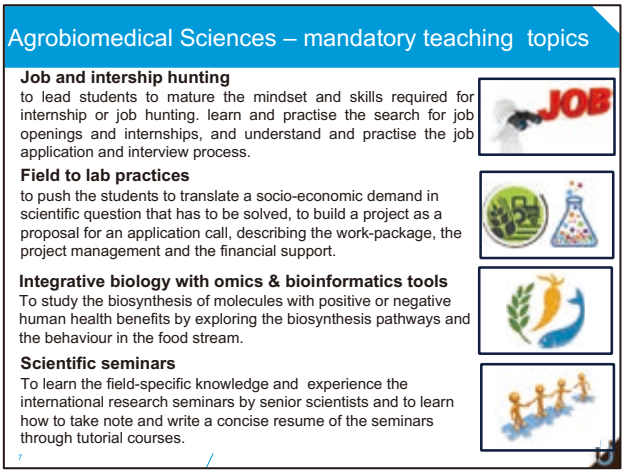
One, you can go to the website of the university, which outlines the setup of the program in English because there are more than 6,000 foreign students coming to Bordeaux; or two, you go to the Master Biology AgroSciences website where there is a description of the program and you will find the schedule for the third semester.

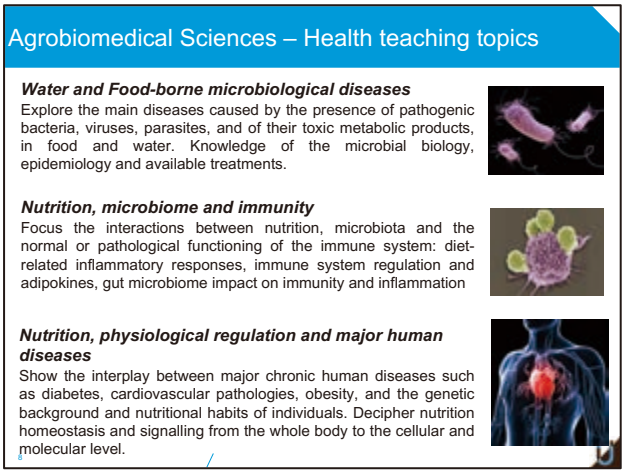


When you arrive, you will see the happy faces of the team—with quite different characters in the team—and also a lot of specialist data people.

For the teaching program, we have organized an integrated program in which we make students do four mandatory teaching units because we feel that in this world, where everything is complex, you need tools to understand the world and this will be part of the overall program. From the field to lab practice, I will describe the voyage, you will come up with a socioeconomic problem and try to translate this into a scientific solution because this will be your job in the future. Also we will have a job internship teaching unit because we know you would love to do an internship of six months or less. But this is very important for us because we know this time is the time to go to all of the laboratories or the lab, the clinic lab or a company lab. And then during these six months, you will have the opportunity to show who you are, and see who they are, and you will create a network for finding a job afterward, and we will show you how to do this. We will have also integrative biology with omics and bioinformatics tools. It is very important to understand that a biological question can no longer be resolved just by looking at a gene or a protein or by looking at an expression of a gene. This is now; and you need to use all the omics tools to integrate and to use all the databases around the world and you need to know how to handle these tools. It is very important. Then, we will present the International Scientific Seminar every Friday; we have it at 11 o'clock. People are coming to it from all around the world and we will experience different types of subjects. In addition, you will be able to join the researchers and have real experience as a researcher to question, to ask and be able to do real research. But if you are coming from a different path, from health, from agro, from food; you will have your own personal project. So we think we need to be able to help you choose what you want to do in the future. Based on this, we have optional teaching units and you will have to choose five teaching units from among

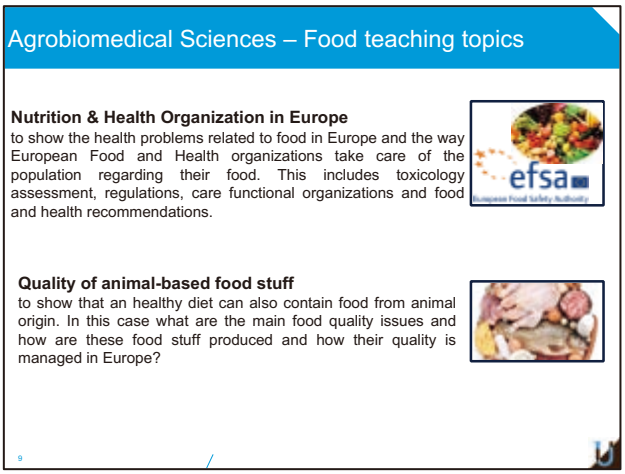
eight, and they will be divided into one that is food production, another one will be more on food and health security, and the third is more on nutrition.

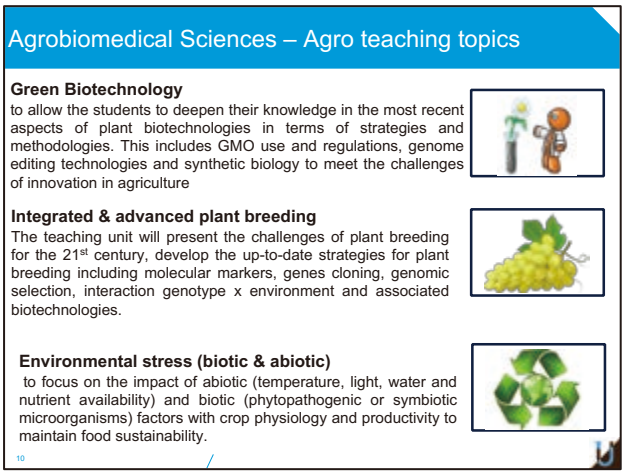




As we go through the different teaching units in more detail, like the mandatory ones as explained, you will learn how to and practice searching for a job. You will understand and you will be prepared for interviews and you will be able to get a job in the future. For the field to lab, we will develop a project in which you will have to translate socioeconomic development into a scientific question to be solved. In this way, you will practice already the job you will do in the future. We also have integrated biology because in Bordeaux we have a lot of platforms from imaging, for genomics, for proteomics, for metabolomics, and biologic systems and you will use this technology and you will be able to go to this platform and integrate the data with the time from addition we have also in our team.

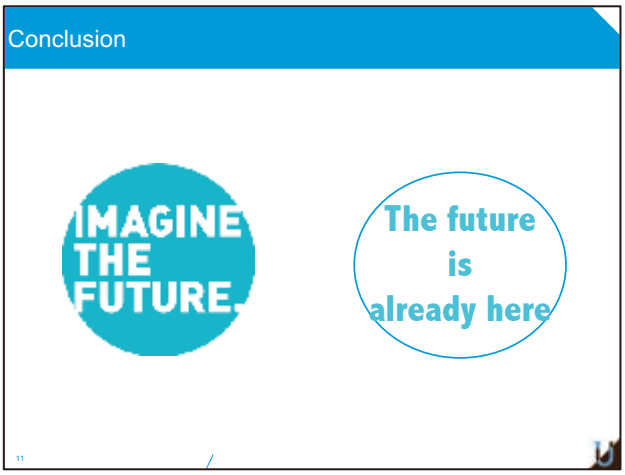
For the health area, we will develop three specific teaching units. One is water and food-borne microbiological diseases. We want you to know everything about microbiology and the presence of pathogenic bacteria, virus, pathogen, and ones that you can find in food and water and that have an impact on the health. The second teaching unit will be the link between nutrition, microbiome, and immunity because food injection has a huge impact on the physiology of the body. It is very important to know how this works in order, in the future, to be able to handle it. The third one is very important. It is the link between nutrition, physiological regulation, and major human diseases like diabetes, cardiovascular pathology, obesity, and the genetic background. Based on this, you will understand how food can interact with this field and then try to find the solution. The idea has come from general bodies to the cellular and the molecular level to have an integrated view of this problem.





For nutrition, we have set up two teaching units where we have Bordeaux Science Agro, which partnered into Bordeaux, here today. One is the Nutrition and Health Organization in Europe. It is very important to understand how health problems in Europe are related to food and the way the European Food and Health Organization takes care of the population regarding their food. The second is mostly related to animal-based food stuff to help you, so that we can have a healthy diet accompanying food with an animal origin.

The last one, which is my background, is more on green biotechnology. You will have access to people who want to work more by focusing on agronomy to have state-of-the-art technology for a plant biotechnology strategy. We will have also have integrated advanced plant breeding in which we have geneticians who will teach you strategies for plant breeding in a time of global climate change in the 21st century, and also so you can understand that you need to know how plants grow, we will have also environment stress with biotic and abiotic elements.



This is my message to the students. In conclusion, I will leave you with one last message. You see, here in Tsukuba, the slogan is, "IMAGINE THE FUTURE." and I think that with my colleagues and friends, we have the future already here. You just have to take it and my message here is, never forget this when you are in my place to work for the next generation to build higher education worldwide among Europe, France, America, and so on. Good luck guys.

(Prof. Yoshito Kumagai)

(Prof. Ryosuke Ohniwa)

(Prof. Tsai-Kun Li)

(Prof. Dominique Rolin)

Student Presentation

As part of the student session, under the topic of ‘proposing solutions for food and health related challenges’, students were split into groups of four or five members, whereby a total of three groups each made 10-minute presentations followed by five-minute question and answer sessions. Judges selected from the educators from the three countries that participated in this symposium evaluated each of the student group presentations based on a presentation score chart. The group receiving the highest number of points was presented with the Outstanding Speaker Award.

Introduction of Student Presentation
Associate Professor Ryosuke Ohniwa

We believe that there is a mindset. A mindset for what? A mindset for studying during these two years and also a mindset after two years. What do they want to be? Also, there is one important point, as Dominique already mentioned, team spirit. We are a team of three countries and together we study here, and at NTU and also at Bordeaux, so to achieve these purposes, I asked them to prepare a presentation. The topic is "Proposal for Issues Related to Food and Health" and as already introduced, that topic is exactly the topic they need to prepare at the end of this Master's Program in two years' time.

Now, of course this presentation is not my representation, just an initiation. Also, some of the students will prefer to focus more on the medical science side, some of them prefer the food science side, yet others prefer to focus on basic research, while some prefer to focus more on the entrepreneurial side. Of course, after October, they need to seek their own issues related to food and health, but at this moment, I asked them to prepare a presentation proposal for issues related to food and health. We would like to start the student presentation.

Student Group I

Team Name: Diet Nurses

Member: Kimberley Massei (University of Bordeaux), Li-Yun Lin (National Taiwan University), Szu-Chun Yang (National Taiwan University), Minagi Uchida (University of Tsukuba), Marie-Dominique Jolivet (University of Bordeaux)

Student Group II

Team Name: Hunger Hunter

Member: Meng-Ting Yu (National Taiwan University), Valentin Leannec-Rialland (University of Bordeaux), Mamiko Mizuno (University of Tsukuba), Hsin-Yun Wang (National Taiwan University)

Student Group III

Team Name: Game of Food and Health

Member: Nobuaki Akami (University of Tsukuba), Chen-Pang Wang (National Taiwan University), Emilie Gericot (University of Bordeaux), Romain Garrigues (University of Bordeaux)

(Question from the audience)

（Outstanding Speaker Award）

(Group photo)

Luncheon

Following the end of the GIP-TRIAD Kick-off Symposium, the University of Tsukuba expressed its gratitude for the efforts of National Taiwan University and the University of Bordeaux, and held a luncheon (organized by vice-president Shimizu) to provide a warm welcome and to further deepen the relationship with the TGSW organizers and the related parties from the University of Tsukuba, the National Taiwan University, and the University of Bordeaux, as the main cooperating universities.

(Vice president Satoshi Shimizu)

(Vice president Yasunori Kanaho)

(Presentation of souvenirs)

(Group photo)

Joint Tri-university Steering Meeting

Following the luncheon, the University of Tsukuba, National Taiwan University, and the University of Bordeaux held a joint steering meeting. During the steering meeting, the attendees confirmed the organization, the role of the individual committees, and the contacts. The representatives of the University of Tsukuba subcommittee also made a status report.







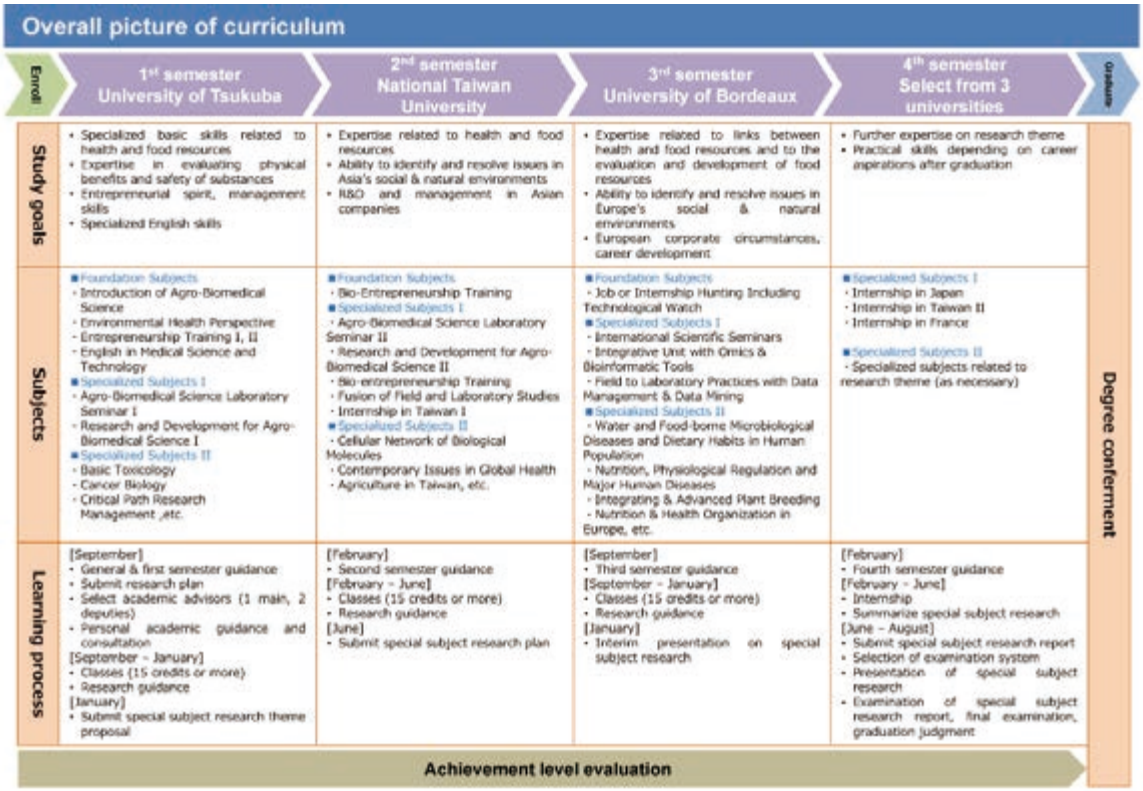

TSUKUBA
GLOBAL
SCIENCE
WEEK 2017


GIP
TRIAD
Leap to the Future of
Food & Health

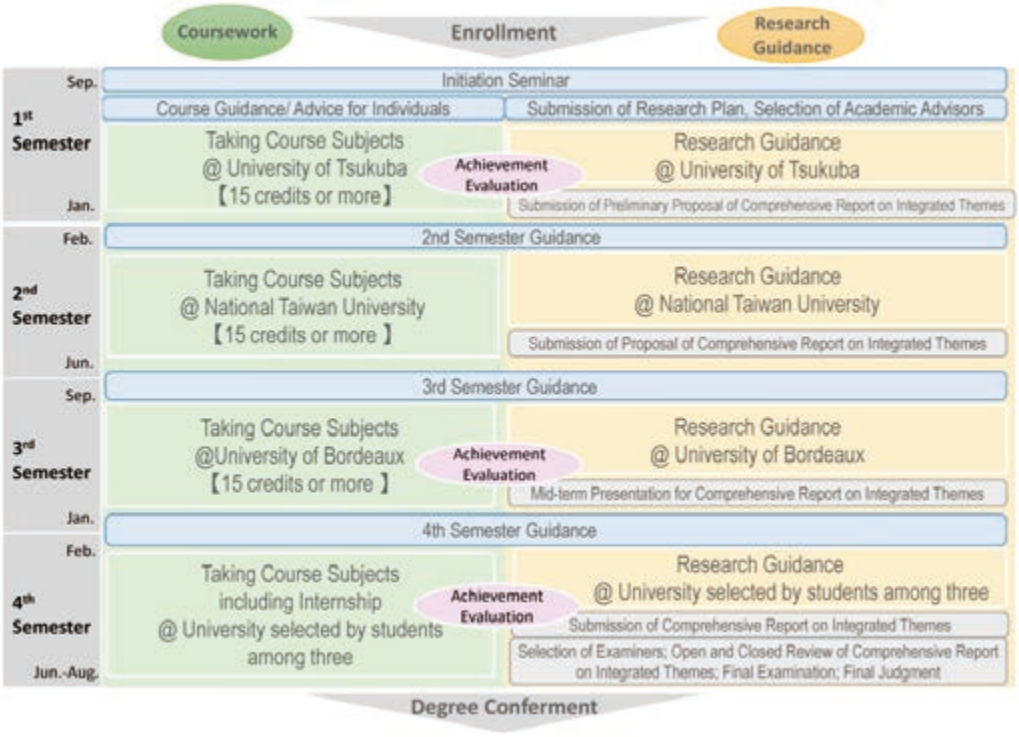
Curriculum Policy

We organize and implement a curriculum that not only develops expertise in the physical benefits and safety of food resources and health foods but also considers the manufacture and processing of foods. Classes are divided into a Foundation Course which teaches the academic basics of food and health and the basics of management etc., a Specialized Course I which cultivates the ability to identify and solve problems and the disposition of a high-level specialist through practical study, and a Specialized Course II which develops expertise in health and food resources. We also place importance on practical learning such as field activities and internships with the aim of developing high-level international professionals who have the expertise and practical skills to be able to bridge the gap between the global community and R&D. Because the program also places importance on fostering the ability to appropriately investigate and analyze real food and health related challenges and to make proposals with practical and proven effectiveness, students must produce a special subject research report, rather than a master's thesis, showing the outcomes of their research on a particular food and health issue. Furthermore, to fully capitalize on the merits of the international joint degree program run by our three universities, all students study at the University of Tsukuba in the first semester, National Taiwan University in the second semester, and the University of Bordeaux in the third semester. In the fourth semester, students study at any one of the three universities depending on the theme of their special subject research and their post-graduation aspirations.

Overall picture of curriculum



Schedule of GIP-TRIAD until graduation



Model Course Pathways

Model Course Pathways

Pathway 1【Home University: University of Tsukuba】

Ideal Graduates	International planning coordinator developing functional foods at R&D department of food related companies (e.g. Pharma Foods International Co., Ltd., Kracie Foods, Ltd., Kirin Company, Ltd.)				
Prospective Students	Graduates from School of Medical Sciences (main major: International Medical Science), UT				
Objective	To study potential functional molecules in microbes and its influences to human health **Title of Comprehensive Research on Integrated Themes**: Molecular understanding of regulation of intestinal flora by Chinese medicine resources (Cordyseps spp) and application for development of health foods				
Academic Advisor	Primary Advisor (UT): Ryosuke Ohniwa, Co-advisor (NTU): Tang-Long Shen, Co-advisor (UB): Catherine Bennetau				
	1st Semester @ UT	2nd Semester @NTU	3rd Semester @ UB	4th Semester @ UT	Total
Foundation Subjects	Introduction of Agro-Biomedical Science [1] Environmental Health Perspective [2] Entrepreneurship Training I [2] English in Medical Science and Technology [1]		Job or Internship Hunting Including Technological Watch [1.5]		
Total	6.0		1.5		7.5
Specialized Subjects I	Agro-Biomedical Science Laboratory Seminar I [1] Research and Development for Agro-Biomedical Science I [3]	Fusion of Field and Laboratory Studies [3] Internship in Taiwan [3]	International Scientific Seminars [1.5] Integrative Unit with Omic & Bioinformatic Tools [3] Field to Laboratory Practices with Data Management & Data Mining [1.5]	Internship in Japan [3]	
Total	4.0	6.0	6.0	3.0	19.0
Specialized Subjects II	Basic Toxicology [1] Critical Path Research Management [2] Genomic Medicine [2] Cancer Biology [2] Advanced Food System [2]	Contemporary Issues in Global Health [3] Cellular Network of Biological Molecules [2] Agriculture in Taiwan [2] Applied Translational Microbiology [3]	Water and Food-borne Microbiological Diseases and Dietary Habits in Human Population [1.5] Nutrition, Microbiome and Immunity [1.5] Nutrition, Physiological Regulation and Major Human Diseases [1.5] Nutrition & Health Organisation in Europe [1.5] Integrating & Advanced Plant Breeding [1.5]		
Total	7.0	10.0	7.5		24.5
Grand Total	17.0	16.0	15.0	3.0	51.0

Black letter: Required Subject, Blue letter: Elective Subject

Model Course Pathways

Pathway 2【Home University: National Taiwan University】

Ideal Graduates	Safety assessment manager engaging in investigation of natural low-molecular substances (e.g. Taiwan Family Mart Co., Ltd, I-Mei Foods Co., Ltd., Uni-President Enterprises Corp.)				
Prospective Students	Graduates from College of Public Health, NTU				
Objective	To study safety of chemical substances in food resources, medicine and environment **Title of Comprehensive Research on Integrated Themes**: Socio-medical understanding of influence of environmental pollutants to human bodies through contamination in food resources under a perspective of global health				
Academic Advisor	Primary Advisor (NTU): Chang-Chuan Chan, Co-advisor (UT): Yoshito Kumagai, Co-advisor (UB): Jean-Pierre Savineau				
	1st Semester @ UT	2nd Semester @NTU	3rd Semester @ UB	4th Semester @ NTU	Total
Foundation Subjects	Introduction of Agro-Biomedical Science [1] Environmental Health Perspective [2] Entrepreneurship Training I [2] English in Medical Science and Technology [1]		Job or Internship Hunting Including Technological Watch [1.5]		
Total	6.0		1.5		7.5
Specialized Subjects I	Agro-Biomedical Science Laboratory Seminar I [1] Research and Development for Agro-Biomedical Science I [3]	Fusion of Field and Laboratory Studies [3] Internship in Taiwan I [3]	International Scientific Seminars [1.5] Integrative Unit with Omic & Bioinformatics Tools [3] Field to Laboratory Practices with Data Management & Data Mining [1.5]		
Total	4.0	6.0	6.0		16.0
Specialized Subjects II	Basic Toxicology [1] Critical Path Research Management [2] Cancer Biology [2] Health Care Policy and Management / Health Service Administration [2]	Contemporary Issues in Global Health [3] Cellular Network of Biological Molecules [2] Agriculture in Taiwan [2] Environmental and Occupational Health [3]	Water and Food-borne Microbiological Diseases and Dietary Habits in Human Population [1.5] Nutrition, Microbiome and Immunity [1.5] Nutrition, Physiological Regulation and Major Human Diseases [1.5] Nutrition & Health Organisation in Europe [1.5] Quality of Animal-based Foodstuff [1.5]		
Total	7.0	10.0	7.5		24.5
Grand Total	17.0	16.0	15.0		48.0

Black letter: Required Subject, Blue letter: Elective Subject

Model Course Pathways

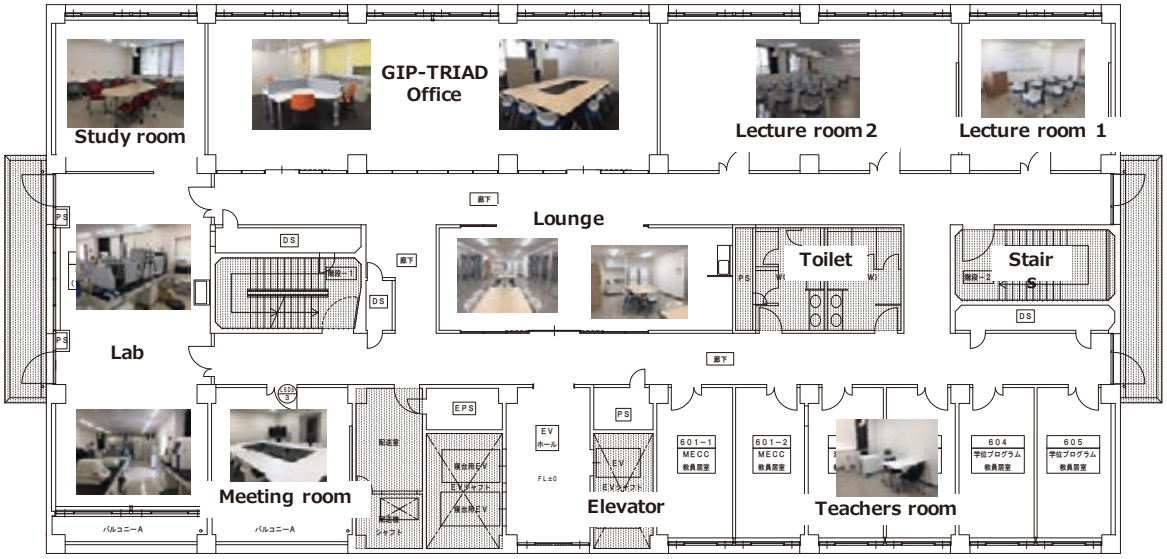
Pathway 3【Home University: University of Bordeaux】

Ideal Graduates	International research coordinator, researcher and R&D staff in international agro-companies (e.g. Syngenta, Maisadour, Limagrain, Gautier Semences, Arysta Life Sciences, Pioneer, Bayer, etc.,)				
Prospective Students	Graduates from College of Sciences and Technology, UB				
Objective	Understanding the inter-disciplinary field of the impact of food production and food processing on human health. **Title of Comprehensive Research on Integrated Themes**: Imagine and prove the safety of the food of tomorrow with respect to both sustainable agriculture, plant protection and human health.				
Academic Advisor	Primary Advisor (UB): Dominique Rolin, Co-advisor (UT): Chiaki Matsukura, Co-advisor (NTU): Tang-Long Shen				
	1st Semester @ UT	2nd Semester @NTU	3rd Semester @ UB	4th Semester @ UB	Total
Foundation Subjects	Introduction of Agro-Biomedical Science [1] Environmental Health Perspective [2] Entrepreneurship Training I [2] Writing Scientific Papers in English for Students of Agro-Bioresources Science and Technology [1]		Job or Internship Hunting Including Technological Watch [1.5]		
Total	6.0		1.5		7.5
Specialized Subjects I	Agro-Biomedical Science Laboratory Seminar I [1] Research and Development for Agro-Biomedical Science I [3]	Agro-Biomedical Science Laboratory Seminar II [1] Fusion of Field and Laboratory Studies [3] Research and Development for Agro-Biomedical Science II [2]	International Scientific Seminars [1.5] Integrative Unit with Omic & Bioinformatic Tools [3] Field to Laboratory Practices with Data Management & Data Mining [1.5]	Internship in France [15]	
Total	4.0	6.0	6.0	15.0	31.0
Specialized Subjects II	Basic Toxicology [1] Critical Path Research Management [2] Health Care Policy and Management / Health Service Administration [2] Advanced Course on Global Food Security [2]	Contemporary Issues in Global Health [3] Cellular Network of Biological Molecules [2] Agriculture in Taiwan [2] Molecular Nutrition [2]	Nutrition, Microbiome and Immunity [1.5] Nutrition, Physiological Regulation and Major Human Diseases [1.5] Impact of Environmental Stresses on Crops Production [1,5] Integrating & Advanced Plant Breeding [1,5] Green Biotechnology [1.5]		
Total	7.0	9.0	7.5		23.5
Grand Total	17.0	15.0	15.0	15.0	62.0

Black letter: Required Subject, Blue letter: Elective Subject

Learning Environment

The University of Tsukuba primarily provides education and research through shared facilities and equipment in the Medical and Life and Environmental Sciences Areas. To enrich the learning environment of GIP-TRIAD, the University of Tsukuba refurbished Building 4E Floor 6 (878 m^2) in the Medical Area and prepared a research laboratory equipped with the basic training equipment required to conduct research in Agro-Biomedical Science. The neighboring rooms have also been prepared with desks and lockers for each student. The GIP-TRIAD office, conference room, two lecture rooms, student lounge, and offices for the educators from Japan and abroad in charge of GIP-TRIAD (six offices including that of the program director) are also located on this floor. The 'Low-molecular-weight Compounds Identification and Analysis System' and the 'Chemical Substance Analysis and Measuring System' used for education and research in GIP-TRIAD are located in the Medical Health Sciences Innovation Building, situated in the same area.



(Research laboratory and Analysis equipment)

Education and Research Contents

The required courses for the first semester include 'Introduction to Agro-Biomedical Science', 'Environmental Health Perspective', 'Entrepreneurship Training I', 'Agro-Biomedical Science Laboratory Seminar I', 'Research and Development for Agro-Biomedical Science Research I', 'Basic Toxicology', and specialized English courses ('English in Medical Science and Technology' or 'Writing Scientific Papers in English for Students of Agro-Bioresources Science and Technology'), which are aimed at improving the fundamental understanding of 'Food and Health', providing the required basic knowledge for the original research topic, and improving English language skills.

<Education Related to Health and Food Resources>

'Introduction to Agro-Biomedical Science' provides students with an understanding of the common challenges related to 'Food and Health' on a global-scale. 'Agro-Biomedical Science Laboratory Seminar I' provides students with a deeper understanding of these challenges through a reading of the related academic literature. 'Research and Development for Agro-Biomedical Science I' educates students on the experiment methods shared by medicine and agriculture, during which time students attend the labs of the individual educators and continue their training in order to learn how to use the experiment methods in the related fields of specialty.

<Education Related to Assessing Benefits and Safety of Substances on Living Organisms>

'Environmental Health Perspective' provides an understanding of the absorption, dissemination, metabolism, and excretion mechanisms of low-molecular-weight substances in the body, and teaches the mechanisms by which cell damage and cancer occur as a result of detoxification and metabolic activation (toxification) of these substances. 'Basic Toxicology' provides an understanding of the benefits and toxicity of food components, drugs, and chemical substances, as well as the importance of assessing the safety of these substances, to provide an understanding of the benefits and harm caused by food. 'Cancer Biology', 'Oncology', and 'Health Care Policy and Management / Health Service Administration' provides an understanding of the basics in medical science and public health.

<Education to Nurture Practical Skills for the Future>

As its stated goal for human resource development, GIP-TRIAD aims to "foster highly skilled international professionals with the expertise and practical skills to bridge global social needs and R&D," and thus places importance on providing the practical skills required to become involved with businesses and markets related to 'Food and Health'. The following courses provide education in these areas. 'Critical Path Research Management' teaches students how to apply basic medicine in clinical settings. Similarly, students take 'Entrepreneurship Training' to nurture an entrepreneurial spirit as well as take specialized English courses ('English in Medical Science and Technology' or 'Writing Scientific Papers in English for Students of Agro-Bioresources Science and

Technology'). In the second and third semesters, 'Fusion of Field and Laboratory Studies' provides students with an understanding of the practical English used in the field, negotiating skills, and the basic experiment methods and principles related to 'Food and Health'. This course also nurtures the foundation for developing these skills for management purposes.

Education Related to Health and Food Resources

<Introduction to Agro-Biomedical Science>

In order to maintain and promote health, provide solutions for a stable food supply, and tackle the other global-scale problems being faced by humanity, students must be able to scientifically understand the impact that food has on health. This course offered the following lectures to systematically provide students with the basic knowledge, holistic analysis skills, and comprehensive thinking skills related to the three pillars of expertise nurtured by GIP-TRIAD, namely the 'skill to link health and food resources', the 'skill to understand health security challenges', and the 'skill to understand food security challenges'.

1. General Overview - What Is Agro-Biomedical Science? (Yoshito Kumagai, Yuichi Yamaoka)
2. Food Security I (Hiroshi Ezura, Chiaki Matsukura, Yoshihiro Okabe)
3. Health Security I (Masao Ichikawa, Masayuki Matsumoto, Kazuya Morikawa)
4. Food Resources and Health I (Yutaka Kitamura, Junichi Peter Abe, Ryosuke Ohniwa)
5. Food Security II (Ming-Ju Chen, Suming Chen)
6. Health Security II (Chang-Chuan Chan, Hsinyu Lee, Han-Yi E. Chou)
7. Food Resources and Health II (Tang-Long Shen, Tsai-Kun Li)
8. Food Security III (Catherine Bennetau)
9. Health Security III (Thierry Noel, Michel Hernould)
10. Food Resources and Health III (Dominique Rolin)

Although most of the lectures were held by educators from the University of Tsukuba, students also received lectures offered by educators from the University of Bordeaux and National Taiwan University, providing students with basic knowledge for specializations in global challenges related to food and health, food security, health security, and food resources and health with a global perspective. Participation in questions and answers during class and reports were used to assess students based on the following five course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to explain global challenges related to food and health
2. Ability to explain food security challenges
3. Ability to explain health security challenges
4. Ability to explain the link between food resources and health
5. Ability to consider the link between the student's own original research topic and career path

<Agro-Biomedical Science Laboratory Seminar I>

Students participated in at least one of their supervising educators' laboratory seminars to develop a basic expertise (skill to link health and food resources, health security, food security) and practical skills in Agro-Biomedical Science, reviewed the latest original articles related to 'Food and Health', and argued the meaning of this research, problematic points, and remaining challenges with an understanding of the research goals, methods, and results. In some cases, the focus was on aspects related to innovation, such as patents, in place of original articles. Students participated in more than 10 seminar sessions offered by the educators in charge of the following topics, during which the students presented at least once on a paper or patent of their own choosing.

Topic 1: Environmental Science (Yoshito Kumagai, Masahiro Akiyama)
Topic 2: Global Health (Masao Ichikawa)
Topic 3: Stem Cell Biology (Osamu Ohneda)
Topic 4: Neurophysiology (Masayuki Matsumoto)
Topic 5: Bacterial Genetics (Kazuya Morikawa)
Topic 6: Microbial Molecular Biology (Ryosuke Ohniwa)
Topic 7: Plant Molecular Breeding (Yoshihiro Okabe)
Topic 8: Genetic and Molecular Breeding (Hiroshi Ezura)
Topic 9: Plant Physiology (Chiaki Matsukura)
Topic 10: Parasitic Fungi and Plants (Yuichi Yamaoka)
Topic11: Mycorrhiza Fungi (Junichi Peter Abe)
Topic 12: Agricultural Product and Food Processing (Yutaka Kitamura)

In their studies under their supervising educators at the University of Tsukuba, the students acquired a basic knowledge of specializations related to health and food resources, and an expertise in the benefits and safety of substances on living organisms, for example. Active class participation (questions and answers, presentations, discussion) and report assignments were used to assess students based on the following five course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to survey the research conducted by the educators on their own
2. Ability to select the papers that should be read from among the latest original article using major scientific journals and online search systems
3. Ability to read and understand the selected papers and provide an overview to the other students within the specified time
4. The ability to read the papers selected by the other students beforehand and understand the oral explanations provided by the other students, as well as the ability to discuss the points of question and the value of the research
5. Ability to explain the positioning of the individual original articles within the various challenges related to Agro-Biomedical Science

<Research and Development for Agro-Biomedical Science I>

During their time in the shared laboratory administered by the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health and that of their supervising educator, students studied the research methods and principles related to 'Food and Health' in a practical manner through specific research topics. Students joined the research laboratories of the educators in charge of the following topics and tackled the practicums of each.

Topic 1: Environmental Science (Yoshito Kumagai, Yumi Abiko, Masahiro Akiyama)
Topic 2: Global Health (Masao Ichikawa)
Topic 3: Stem Cell Biology (Osamu Ohneda)
Topic 4: Neurophysiology (Masayuki Matsumoto)
Topic 5: Bacterial Genetics (Kazuya Morikawa)
Topic 6: Microbial Molecular Biology (Ryosuke Ohniwa)
Topic 7: Plant Molecular Breeding (Yoshihiro Okabe)
Topic 8: Genetic and Molecular Breeding (Hiroshi Ezura)
Topic 9: Plant Physiology (Chiaki Matsukura)
Topic 10: Parasitic Fungi and Plants (Yuichi Yamaoka)
Topic11: Mycorrhiza Fungi (Junichi Peter Abe)
Topic 12: Agricultural Product and Food Processing (Yutaka Kitamura)

Under their supervising educators at the University of Tsukuba, students acquired the basic skills for specializations related to health and food resources, as well as the basic skills for specializations related to assessing the benefits and safety of substances on living organisms. Each supervising educator evaluated student performance using reports submitted by the students as the outcome of their work based on the following five course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to survey the research conducted by the educators on their own
2. Ability to explain the goals and methods of the individual experiments and analysis undertaken on their own
3. Ability to scientifically explain and discuss the results and their interpretation of the individual experiments and analysis undertaken on their own
4. Ability to position the experiments and analysis undertaken on their own within the goals of the research as a whole
5. Ability to explain the positioning of the research undertaken on their own within the various challenges of Agro-Biomedical Science

Education Related to Assessing the Benefits and Safety of Substances on Living Organisms

<Environmental Health Perspective>

Many of the chemical substances found in the environment have a major impact on the human body. As shown by more recent molecular research, however, the diseases caused by exposure to at least some of these environmental chemicals are a result of an interaction with macromolecules, such as proteins, within the body. In this course, the following lectures were held to provide students with knowledge on the various symptoms resulting from exposure to environmental chemicals, as well as the initial reaction to and cellular defense against these substances.

1. Overview (Yoshito Kumagai)
2. Chemical Properties of Environmental Substances (Yoshito Kumagai)
3. Detoxification and Metabolic Activation of Environmental Chemicals 1 (Yoshito Kumagai)
4. Detoxification and Metabolic Activation of Environmental Chemicals 2 (Yoshito Kumagai)
5. Biological Response to and Toxicity Defense Against Environmental Chemicals 1 (Masahiro Akiyama)
6. Biological Response to and Toxicity Defense Against Environmental Chemicals 2 (Masahiro Akiyama)
7. Carcinogenic Substances in the Environment (Yumi Abiko)
8. Genetic Polymorphism (Yumi Abiko)
9. Exposome 1 (Shoji Nakayama)
10. Exposome 2 (Shoji Nakayama)

Through these lectures, the students studied areas that form the medical science foundation for understanding challenges related to food and health, including the chemical properties of environmental chemicals, the adverse reactions to environmental chemicals and the important role that in vivo metabolism plays in their detoxification, systems that detect, respond to, and handle environmental chemicals, and the environmental risk and exposome from the perspective of public health. Class participation (questions and answers, etc.), presentations, and tests were used to assess students based on the following one course achievement target. The assessment results indicated that all students met the achievement targets.

1. The ability to argue the current challenges of environmental medicine from various viewpoints with a fundamental understanding of molecular medicine and public health as related to environmental medicine

<Basic Toxicology>

Toxicology is an academic field that researches the characteristics and mechanisms at the root of the toxic effects that substances have on biological organisms and biological systems Moreover, toxicology also quantitatively evaluates the harmful effects related to dose concentration, duration, and the toxic substance exposure frequency of biological organisms. As with other scientific fields, toxicology is utilized to help develop drugs, food additives, agricultural chemicals, industrial chemicals, and other chemical substances that are relatively safe for use. This course provided the following lectures under the four topics of [1] General aspects of toxicology (particularly chemical and molecular toxicology), [2] Toxin biotransformation that contributes to the detoxification and metabolic activation that bring about macromolecule dysfunction and cellular damage, [3] Initial reaction to and cellular protection against toxins, and [4] Toxicity assessment.

1. Toxicology Overview (Yoshito Kumagai)
2. Toxin Absorption, Dissemination, and Excretion (Yoshito Kumagai)
3. Toxin Biotransformation: Detoxification 1 (Yoshito Kumagai)
4. Toxin Biotransformation: Detoxification 2 (Yoshito Kumagai)
5. Toxin Biotransformation: Metabolic Activation (Yoshito Kumagai)
6. Oxidative Stress and Toxins (Yoshito Kumagai)
7. Cytoprotective Systems Against Toxins (Masahiro Akiyama)
8. Mutagenicity and Cancer (Masahiro Akiyama)
9. Target Organs and Toxic Substances (Yumi Abiko)
10. Toxicity Assessment (Yumi Abiko)

Through these lectures, students studied the toxic effects of substances contained in foods, drugs, and the environment in relation to food source safety, and learned about the characteristics and mechanisms at the root of the toxic effects that substances have on biological organisms and systems. Quizzes after each of the lectures and a final examination were used to assess the students based on the following eight course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to explain the organs targeted by toxins and the symptoms of poisoning
2. Ability to explain the absorption, dissemination, and excretion of toxins
3. Ability to explain the metabolism and metabolic activation of toxins
4. Ability to explain the toxic reaction to chemical damage
5. Ability to explain the oxidative stress caused by toxin exposure
6. Ability to explain detoxification of poison and treatments for poisoning
7. Ability to explain the molecular foundation of cytoprotective systems against toxins
8. Ability to explain the mutagenicity and carcinogenesis caused by toxin exposure

<Cancer Biology>

In this omnibus distance learning course on cancer biology, students introduced and discussed papers in English under the following topics during exchange classes with National Taiwan University and Kyoto University through an internet video-conferencing system in order to acquire expertise on cancer biology and the skills for scientific communication in English. This course was administered by the University of Tsukuba, with lecturers from National Taiwan University and Kyoto University participating in their corresponding topics.

1. Cancer Biology (Kenji Irie)
2. What Is Malignancy? (Ryosuke Ohniwa)
3. Genomic Instability and the Malignancy Mechanism (Kenji Irie)
4. Telomere Biology (Ryosuke Ohniwa)
5. RNA Control and Malignancy (Kenji Irie)
6. Cancer Epigenetics (Ryosuke Ohniwa)
7. Tumor Virology (Atsushi Kawaguchi)
8. Animal Models for Cancer Research (Satoru Takahashi)
9. Signal Transmission Inside Cancer Cells (Norihiko Obayashi, Yuji Funakoshi)
10. Comparative Cancer Genomics (Ryosuke Ohniwa)
11. How Does Cancer Grow? (Mitsuyasu Kato, Hiroyuki Suzuki)
12. Nerve Cancer (Kenji Irie)
13. Student Paper Presentations (Kenji Irie, Ryosuku Ohniwa, Yasuyuki Suda, Tomoaki Mizuno)

Utilizing the example of cancer biology, in this course students deepened their understanding of the influence that substances contained in food resources have on health as a way of understanding health security from a medical science perspective (molecular cell biology, epidemiology, physiology, zoology, etc.). Moreover, the course nurtured the scientific communication skills of the students through original article presentations and discussions with participants from National Taiwan University and Kyoto University via a video-conferencing system. Active class participation, participation in discussions, and paper presentations were used to assess students based on the following three course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to explain cancer biology from a medical science perspective
2. Ability to introduce and present original articles from the cancer biology field
3. Ability to discuss the contents of original articles on cancer biology with class members

<Oncology>

This course offered the following lectures to teach students about health security from a medical and oncological perspective (both fundamental and clinical).

1. Concept and Definition of Tumors (Mitsuyasu Kato)
2. Cell Cycle, Cancer Genes, Tumor Suppressor Genes (Mitsuyasu Kato)
3. Chemical Carcinogenesis (Hiroyuki Suzuki)
4. Viral Carcinogenesis (Shoko Saito)
5. Cell Proliferation (Norihiko Obayashi)
6. Metastasis and Cancer (Koji Hisatake)
7. Proliferation Suppression and Aging (Hiroyuki Suzuki)
8. Intercellular Adhesion and Cell Motility (Kenji Irie)
9. Apoptosis and Cancer (Hiroyuki Suzuki)
10. Stem Cells and Carcinogenesis (Mitsuyasu Kato)
11. Diagnostic Oncology I (endoscopic diagnosis) (Yuji Mizogami)
12. Diagnostic Oncology II (radiological diagnosis) (Manabu Minami)
13. Diagnostic Oncology III (tissue and cell diagnosis) (Norio Takayashiki)
14. Diagnostic Oncology IV (genetic diagnosis) (Masayuki Noguchi)
15. Treatment Oncology I (chemotherapy and molecular target therapy) (Ichinosuke Hyodo)
16. Treatment Oncology II (radiation therapy) (Hideyuki Sakurai)
17. Treatment Oncology III (surgical therapy) (Yukio Sato)
18. Hematopoietic Tumors and Bone Marrow Transplant (Shigeru Chiba)
19. Reproductive Organ and Urinary Cancer (Koji Kawai)
20. Pediatric Cancer (Kouji Masumoto)
21. Digestive Organ Cancer (Masayuki Noguchi)
22. Nervous System Cancer (Noriaki Sakamoto)
23. Gynecological Cancer (Masayuki Noguchi)
24. Respiratory Organ Cancer (Shingo Sakashita)

Through these lectures, students learned about the concept of cancer as a disease, its causes, and the generation and progression mechanisms at the molecular level, and studied how this knowledge is applied to diagnosis and treatment of tumors in humans. In addition to this basic knowledge, students also received lectures on the latest topics in cancer research (fundamentals) and diagnosis and treatment (clinical) to deepen their understanding of the definition of malignant tumors, pathogens, the progression mechanism, diagnosis of malignant tumors, and the infrastructure for treatment. Participation in questions and answers during class and report assignments were used

to assess students based on the following one course achievement target. The assessment results indicated that all attending students met the achievement targets.

1. Ability to explain the cause of tumors, the malignancy mechanism, and the fundamentals of diagnosis and treatment

<Health Care Policy and Management / Health Service Administration>

This course offered the following lectures related to the social medical aspects of health care systems and services to nurture the skills to link health and food resources, as well as the skills to understand health security challenges. The lecture hours for this course overlapped with those of Entrepreneurship I, so the lectures were recorded on video and provided as video files to any student desiring such.

1. Health Care Provision Systems
2. National Health Care Costs
3. Health Care Insurance Systems
4. Medical Fee Systems
5. Health Care Related Legislation
6. Health Care Function Assessment
7. Fundamentals of Clinical Economics
8. Student Presentations (1)
9. Student Presentations (2)
10. General Discussion

Through these lectures, the students learned about health security challenges with a particular focus on the situation and challenges of the health care and health care insurance system in Japan, the quality of health care services in Japan, and the assessment thereof, necessary to understand the social medical aspects of these challenges. In addition, the students also learned the basics of clinical economics and medical decision making as required for research on these topics.

Education to Nurture Practical Skills for the Future

<Critical Path Research Management>

Safe, effective scientific empirical research is essential for the development of drugs, treatment equipment, and medical materials, as well as for treatment and diagnostic devices. More recently, a similar level of safe, effective scientific empirical research as required for drug development has also become essential for the development of functional foods, etc., from the perspective of preventative medicine. There is also a strong demand to rapidly cultivate the technical seeds to meet the needs of medical settings. In this light the following lectures provided students with an understanding of the importance of managing research and development related to strategic medical care, drugs, and health from the perspective of technology management, not simply from a scientific perspective, and provided them with an understanding of the various related occupations. At the same time, the lectures aimed to nurture professionals with the ability to undertake these positions.

1. Introduction to the Critical Path Research Management Process (Koichi Sakamoto)
2. Drug Development I (search methodology) (Masafumi Muratani)
3. Drug Development II (preclinical and clinical trial methodology) (Keiko Fujie)
4. Advanced Technologies I (devices, wet technology), Advanced Technologies II (data processing) (Masafumi Muratani)
5. Advanced Technologies III (bioinformatics), Project Management (Koichi Sakamoto)
6. Global Trends in Drug Development and Japan's Role (Koichi Sakamoto)
7. Technological Innovation Theory (Koichi Sakamoto)
8. Regulatory Science (Kenichi Yanagi)
9. Critical Path Research Management Case Studies I (medical devices) (Hideo Tsurushima)
10. Critical Path Research Management Case Studies II (drugs) (Takahiro Kojima)

Students learned how to link research and development in the lab to real-world needs related to food and health using the topic of medicine (particularly drugs and medical equipment) for the course material. Participation in questions and answers during class, presentations, discussions, and report assignments were used to assess students based on the following four course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to explain the development process for drugs, treatment equipment, and medical materials, as well as for treatment and diagnostic devices
2. Ability to explain the importance of safe, effective scientific empirical research (preclinical research, clinical research (trials))

3. Ability to explain the social environment within which drug and medical equipment development is situated, as well as the stakeholders and institutions involved with development

4. Ability to explain the importance of the technologies used in the development process for drugs, treatment equipment, and medical materials, as well as for treatment and diagnostic devices, and the importance of securing intellectual property

<Entrepreneurship Training>

This course offered the following lectures to provide practical knowledge and skills that are to be acquired through the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health, particularly the skills to apply expertise in Agro-Biomedical Science and comprehensive project management skills, including the ability to interact with and cooperate between different fields and industries. As practical training for the study content of this course, students were also recommended to take Entrepreneurship Training II.

1. Biotech Business Overview
2. Biotech Companies and Bio-ventures
3. Skills Required for Starting Biotech Businesses
4. Intellectual Property Rights
5. Project Management
6. Social Demands, Marketing, Business Models, Financial Challenges, etc.

In this course, students acquired the ways of thinking and necessary skills to take seed technologies and ideas and give back to society on their own. Moreover, through the lectures, students learned the ways of thinking and necessary skills to grasp the needs of society, start a business, and continue that business. Students also visited actual companies to study both successful and failed cases. Participation in questions and answers during class, presentations, discussions, and report assignments were used to assess students based on the following one course achievement target. The assessment results indicated that all students met the achievement targets.

1. Ability to explain the fundamental process for creating businesses and starting companies related to food and health

<Entrepreneurship II (elective)>

This course offered the following lectures to teach students about project management, market surveys, organization building, financing planning, scheduling, risk management, exit strategies, and other skills required for drafting business startup plans. Based on the content studied during Entrepreneurship Training I, each group of students drafted and presented an actual business startup plan. Although this course was not mandatory, all 13 GIP-TRIAD students attended.

1. Biotech Business Simulation I
2. Biotech Business Simulation II
3. Business Model and Proposal Material Preparation Methods
4. Business Model Presentation I
5. Business Model Presentation II
6. Methods for Improving Business Models

Through these business startup simulations, students acquired the knowledge and skills for starting venture businesses and continuing these businesses. This course also provided general knowledge and skills that are to be acquired through the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health, particularly the skills to apply expertise in Agro-Biomedical Science, the practical skills to realize and execute ideas, communication skills including presentation and self-promotion skills, and comprehensive project management skills including multinational dialogue and negotiation skills. Participation in questions and answers during class and business model presentations were used to assess students based on the following one course achievement target. The assessment results indicated that all students met the achievement targets.

1. The ability to create business models with a high potential for business startup or realization based on a specific topic related to food and health.

<English in Medical Science and Technology>

Using topics related to medical science, including health security, this course offered the following lectures for the purpose of providing students with the scientific English that forms the basis of multinational scientific communication, including paper writing methods and the English language skills for applying general knowledge and general skills that must be acquired by students interested in food, in particular, as well as those for applying expertise and specialized skills.

Scientific Writing (Flaminia Miyamasu)

1. Research Paper Structure: “Introduction” Section / Research Paper Style: Punctuation
2. Research Paper Structure: “Methods” Section / Research Paper Style: Vocabulary Selection
3. Research Paper Structure: “Results” Section / Research Paper Style: Verbs
4. Research Paper Structure: “Discussion” Section / Research Paper Style: Redundant Phrasing
5. Research Paper Structure: Title, Abstract, References / Research Paper Style: Other

Scientific Presentation (Mathis Bryan)

1. Hypothesis Positing
2. What Is a Presentation?
3. Scientific Idioms (Jargon) Used in Presentations
4. Attractively Presenting Power Point Slides
5. Student Presentations

In this course, students received instruction from two native English speaking educators in scientific writing and scientific presentation to foster the English language skills required to effectively and energetically convey the results of one’s work as a scientist to the global scientific community and on how to make scientific arguments. Participation in questions and answers during class and in-class and out of class assignments were used to assess students based on the following one course achievement target. The assessment results indicated that all students met the achievement targets.

1. Acquisition of the foundation for sharing knowledge and ideas with other scientists and entrepreneurs in English

<Writing Scientific Papers in English for Students of Agro-Bioresources Science and Technology>

This course offered the following lectures related to the required fundamentals for writing scientific papers, including paper structure, appropriate phrasing, figure and table preparation, and communication with journal editors, for the purpose of providing students with the scientific English skills that form the basis of multinational scientific communication. Specifically, this course covered paper writing methods and particularly the English language skills for applying general knowledge and general skills that must be acquired by students interested in food, as well as those for applying expertise and specialized skills.

1. Paper Writing Overview and General Writing Techniques
2. Introduction Section Writing - 1
3. Introduction Section Writing - 2
4. Materials and Methods Section Writing
5. Scientific Model Figures, Data Figures, and Table Preparation
6. Results Section Writing
7. Discussion Section Writing
8. Abstract Writing and Citation Usage
9. Scientific Presentations
10. Paper Submission, Revision, and Publication Process

From a social sciences perspective as well, students learned about the necessary fundamentals for writing scientific papers related to food security in English, including the paper structure, appropriate expression methods, figure and table preparation methods, and methods for communicating with journal editors. Each lecture covered a different area, including background, materials and methods, figures and tables, results, discussion, abstract and citation, oral presentation, and submission processes, along with specific examples. Participation in questions and answers during class and a final exam were used to assess students based on the following two course achievement targets. The assessment results indicated that all students met the achievement targets.

1. Ability to understand the basic structure of papers published in scientific journals and the ability to understand how the contents of each section are put together
2. Ability to understand the best way to prepare scientific paper figures and tables and the ability to understand oral presentation methods

Education and Research Case

As part of the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health, the Incubationship Program was held from October 2017 to January 2018 under the direction of Associate Professor Ohniwa, one of the full-time GIP-TRIAD educators. The Incubationship Program is a trial aimed at having students search out foods and functional molecules that contribute to the promotion of health, fully understand this scientific knowledge, conduct surveys, consider product concepts, and deliver these to the real-world, all on their own. The Incubationship Program contributes to the academic goal of GIP-TRIAD, namely "the training of highly skilled international professionals with the ability to scientifically understand the impact of food on health and with the ability to act as a bridge between the needs of global society and R&D under the principle of 'food is medicine'."

'Incubationship' was held as two separate activities, the 'Cup of Cup Project', in which students searched for foods and considered healthy recipes to deliver to society, and the 'Molecular Project', in which students searched for functional molecules that can solve health problems and developed craft health drinks (Fig. 1). Each project was administered jointly with Saidania and Co., Ltd., which also cooperates on receiving internships for GIP-TRIAD. Seven GIP-TRIAD students participated in the 'Cup of Cup Project' and seven GIP-TRIAD students participated in the 'Molecular Project'. The project meetings for each were held every Friday (Fig. 2). In addition, students worked with Saidania and Co., Ltd. to conduct monitor testing for the resulting product prototypes and concepts to discover areas of improvement (Fig. 3). For those students who selected Associate Professor Ohniwa as their supervising professor, these projects were equivalent to 'Research and Development for Agro-Biomedical Science I (1.5 credits worth of the second half)' and 'Agro-Biomedical Science Laboratory Seminar (1 credit)'.

Figure 1: Incubationship Poster

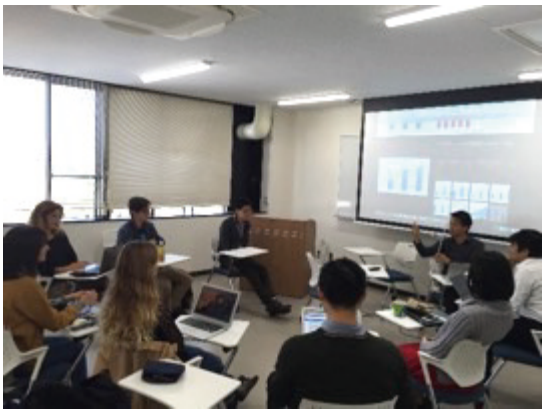


Figure 2: Cup of Cup Project MeetingFigure 3: Monitor Testing

1) Cup of Cup Project: In October, students formed teams (2 - 3 members per team) and studied project management, in November the teams conducted scientific literature surveys related to the health promoting effects of foods and conducted food market surveys, in December the teams studied the aspects for moving towards actual food recipe development and commercialization, and in January teams conducted food sampling monitor testing of the actual products. The following introduces the products developed by each team.

1-1) Team EmC^2: Development of a reduced calorie energy replacement snack for consumption after exercise. This product utilizes the glucose metabolism activation effect of ginseng, the fatigue recovery effect of vitamin C contained in acerola, and the minerals contained in oatmeal and its low calorie nature.

Figure 4: EmC^2 Project Charter

The EMC2 energy bar

Do you want to have sweets after a hard working day but afraid of taking too much sugar and fat?

Now we have EMC2 energy bar. In each bar you can taste the sour cherry fruits with Ginseng, together with oatmeal, almond and Canada maple syrup.
It is designed to reduce mental tiredness and muscular tiredness with the combination of both acerola and ginseng to boost your fatigue body after a fulfill working day

Functional benefit	Emotional benefit	Reason to buy
High Vitamin C, Dietary fiber	Great tastes to remove fatigue	Delicious, All natural ingredients, Low sugar

Figure 6: EmC^2 Prototype (for monitor testing)Figure 5: EmC^2 Product Concept (right figure)

1-2) Team Health Trail: Development of Snack EmMa for helping office workers to recover from fatigue during breaks. This product utilizes the iron contained in molasses and almonds, and the iron absorption supporting effect of vitamin C contained in Japanese limes.

Figure 7: Health Trail Project Charter

Figure 8: Health Trail Product Concept

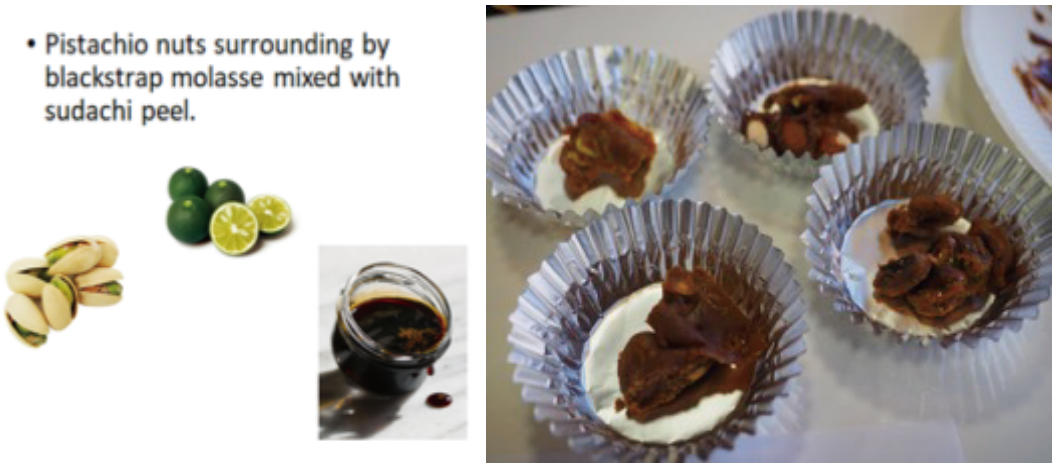


Figure 9: Health Trail Prototype (for monitor testing)

1-3) Team MNV: Development of a jelly desert for improving blood flow. This product utilizes the effect of almonds, calamansi, and ginger.

Figure 10: MNV Project Charter

Figure 11: MNV Product Concept

Figure 12: MNV Prototype (for monitor testing)

2) Molecular Project: In October, students formed teams (3 - 4 members per team) and studied project management, in November the teams selected the health condition to target and conducted a scientific literature survey of the corresponding functional molecules, in December the teams conducted a market survey for the functional molecules and created a product concept, and in January the teams conducted monitor testing for their concepts. The following describes the product concepts proposed by each team.

2-1) Team USAGI: Developed a craft health drink product concept designed to help working mothers recover from fatigue. This product utilizes the ability of 'imidazole dipeptide', contained in large amounts in migratory birds and whales, to prevent the buildup of fatigue and improve fatigue recovery.

Figure 13: USAGI Project Charter (left)

Figure 14: USAGI Product Concept (top)

2-2) Team BIG BRAIN: Developed a health drink for skin problems caused by stress. This product utilizes the skin clarifying effect and expected fatigue recovery effect of zinc.

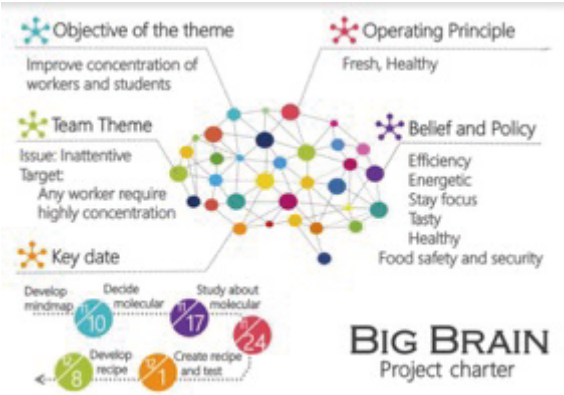


Figure 15: BIG BRAIN Project Charter

Figure 16: BIG BRAIN Product Concept

Figure 17: BIG BRAIN Product Image

3) Summary

These projects served as the first time for all of the GIP-TRIAD students to tackle market-oriented product development, so offered the opportunity to learn about the requirements, procedures, and other aspects required for identifying raw materials, project management, market research, laws, distribution, and commercialization. Moreover, it also served as a good opportunity for students to learn about the reality of evidenced-based product concept planning under the direction of university educators and about actual product development with guidance from the industry side. Students also made large gains by conducting monitor testing to experience what happens when a product or concept, proposed by the students themselves, is not readily accepted by consumers and to experience the difficulty of product development. In response to the desire stated by the students to continue tackling product development in the second semester and beyond, this program is scheduled for continuation in cooperation with the educators of National Taiwan University. This program is also scheduled for continuation for next year's class in light of the fact that more than half of the GIP-TRIAD students participated and in light of the many students who applied their learning from this project during the semester-end learning outcome assessment (GLidD).

Report Author: Ryosuke Ohniwa

GLidD Learning Outcome Assessment

In accordance with the human resource development goals of GIP-TRIAD, the GLidD learning outcome assessment system (see P. 14) was applied to assess the following knowledge and skills targeted for acquisition by GIP-TRIAD students.

1) General knowledge and skills

· Literacy

- Interdisciplinary thinking skills backed by expertise
- Language skills for applying specialized knowledge and skills

· Coordination skills

- Judgment and planning skills for the international field
- Multinational dialogue and negotiation skills
- Interdisciplinary and inter-industry management skills

· Practical skills

- Practical skills for realizing and implementing ideas
- Communications skills, including presentation and self-promotion skills

2) Specialized knowledge and skills

· Skills to link health and food resources

- Knowledge related to the functionality and medical use of biological resources
- Knowledge related to diseases and physiological disabilities caused by foods
- Knowledge about policies concerned with food resources and medical care

· Heath security challenges comprehension skills

- Knowledge related to social medicine, including the safety of food resources, medicines, and other chemical substances

· Food security challenges comprehension skills

- Knowledge related to the assessment and development of biological resources (including safety) and the application of sustainable food production systems

Along with verifying the above basic knowledge and skills, during the first semester students were assessed on whether they could appropriately respond, based on their own learning experience, to 72 questions designed to provide motivation for the original research topic, internships, and career building.

For example, Question “1: Describe what kind of questions you have in the study of food and health as if you were explaining to others who do not know anything about you or do not have prior knowledge of you.” and Question “2: Describe the reason why you are interested in the questions described in 1 as if you were explaining

to others who do not know anything about you or do not have prior knowledge of you.", which test 'seeds identification skills', assess whether the students can respond appropriately in terms of basic judgement and planning skills for coordination in the international field. When a student is not able to respond appropriately, including in terms of English expression, the student is provided with areas to improve and the question is repeated until the student can respond appropriately. As of February 15th, the student completion rate was 52%.

Many of the responses were based on the students' learning experience in the courses and programs designed to achieve the learning goals of GIP-TRIAD, including the TGSW2017 group presentations (special course program), Introduction to Agro-Biomedical Science (mandatory course), Entrepreneurship I (mandatory course), Basic Toxicology (mandatory course), Research and Development for Agro-Biomedical Science (mandatory course), Agro-Biomedical Science Laboratory Seminar (mandatory course), English in Medical Science and Technology (compulsory elective course), Writing Scientific Papers in English for Students of Agro-Bioresources Science and Technology (compulsory elective course), and Incubationship (special program course). In this way, the responses indicated the effectiveness of the curriculum designed to achieve the educational goals of GIP-TRIAD. This assessment was also shown to be an opportunity to reflect on the overall studies throughout the semester.

For example, 14 questions, such as "1: Describe which company, organization or institution is potential for you to do an internship in GIP as if you were explaining to others who do not know anything about you or do not have prior knowledge of you." and "2: Describe what kind of capability you want to develop in the company, organization or institution described in 1 as if you were explaining to others who do not know anything about you or do not have prior knowledge of you.", were designed to provide motivation for internships and career building. Based on the responses to these questions, a difference in awareness was found between those students who already foresaw a specific employment or further education path for themselves and those students who answered 'undecided' for the first part of the question. As a result of directing any student who responded as 'undecided' to provide their thoughts at the current stage in regard to fields, occupations, and further education, these students were able to provide an answer. In addition to assessing the outcome of student learning, these results indicated that the assessment feedback also had a coaching effect on the students.

This learning outcome assessment will also be conducted at the end of the third and fourth semesters, which is expected to offer other educational benefits in addition to assessing the level of student achievement, such as reflecting on and cementing the study content, improving English writing skills, and providing career coaching.

Farewell party

During the final week of the semester, a farewell party was held, during which students, staff, and educators chatted.








Summary

Given the large number of talented applicants from Taiwan and France this academic year (the first year of GIP-TRIAD), five students from both National Taiwan University and the University of Bordeaux were accepted. This level of interest hints at the fact that this degree program is an attractive initiative that is able to offer strong international appeal.

As the start of GIP-TRIAD, the first semester plays an important role in helping students understand the mission and goals of GIP-TRIAD, the overall learning process, and the study goals, in addition to providing education and research guidance. Therefore, during the first semester, an initiation seminar was held over the three days from September 11 to 13 in order to explain the mission and goals of GIP-TRIAD, the overall learning process, and the study goals. In addition, by having student groups prepare GIP-TRIAD promotional materials and make group presentations at TGSW2017 (topic: proposing solutions for food and health related challenges), students grasped the mission and goals of GIP-TRIAD, the overall learning process, and the study goals. Moreover, the joint symposium held by the three universities during TGSW2017 served to build a relationship of trust between the universities participating in this international joint degree program and to provide a shared awareness of GIP-TRIAD. Through the group presentations, the students deepened their understanding of GIP-TRIAD and heightened their mutual feeling of solidarity and understanding. In advance of these presentations, the students also learned about the D-thinking, C-thinking, and E-thinking methods as they prepared for the presentations. In this way, making presentations based on these methodologies, which are not touched upon in standard research laboratory activities, provided students with a valuable experience.

During the first semester, students deepened their expertise on ‘Health’ through ‘Medical’ and ‘Hygiene and Public Health’ studies, and their expertise on ‘Food’ through fields related to agriculture, primarily, as they strengthened their practical skills through laboratory practicums and internships. GIP-TRIAD places particular importance on the practical skills that enable students to become involved with businesses and markets related to ‘Food and Health’. All 13 students participating in GIP-TRIAD attended and received credit for ‘Entrepreneurship Training II (elective)’ in addition to ‘Entrepreneurship Training I’, a mandatory part of Entrepreneurship Training. As part of ‘Introduction to Agro-Biomedical Science’, students also received lectures related to the recent issues of genetically modified crops, development and distribution of genetically modified foods, and the related regulations in Japan, offered by Professor Chiaki Matsukura of GIP-TRIAD. Of the 13 students, five took up these topics in their report assignments following this series of classes, indicating the high level of interest. GIP-TRIAD also maintains a corporate cooperation and career development committee, which has been preparing new internship destinations. During the first semester, Associate Professor Ohniwa coordinated with Saidania and Co., Ltd. (headquartered in Todoroki, Setagaya-ku) on the Incubationship Program held as part of ‘Research and Development for Agro-Biomedical Science I’ and ‘Agro-Biomedical Science Laboratory Seminar’, wherein Saidania and Co., Ltd. conducted the monitor testing for the products developed in this program. Eight students

participated. As a continuation of this series of activities, Saidania and Co., Ltd. has agreed to accept student interns during the fourth semester if a student makes such a request.

Throughout the entire first semester, the students consistently maintained a high level of motivation in tackling the lectures and practicums, etc. Along with competing in a friendly manner, the students from different national and cultural backgrounds also maintained a good relationship with each other and traveled together on holidays, for example. Through the forthcoming semesters, students are expected to see further growth.

Materials

Research Activity Report of GIP students

Led by the students' supervising professors during the first semester (the University of Tsukuba), GIP-TRIAD has prepared a Research Activity Report summarizing the activity status of the students.

Student Name:	Home University:	Professor at UT:
Hsin-Yun Wang	NTU	Masao Ichikawa
Comprehensive Report Title (Tentative): Eating alone and well-being among older adults		
Study Topic in UT: Eating alone and well-being among older adults		
Current activity at UT in the lab: Cindy is currently reviewing literatures on the study topic and conceiving a research question to answer during the course of the study. Her research plan is still vague but the topic itself (i.e., adverse health effects of eating alone) is new and increasingly studied (see some references below) and also relevant to Taiwan. According to her, governmental and non-governmental agencies in Taiwan provide lunch services for older adults to eat together. So, she might explore whether this kind of programs helps avert adverse health effects of eating alone. For that, she needs to be equipped with epidemiologic and statistical skill to plan a field trial or experiment. References 1. Tani Y, Sasaki Y, Haseda M, et al. Eating alone and depression in older men and women by cohabitation status: The JAGES longitudinal survey. *Age Ageing* 2015;44:1019-26. 2. Tani Y, Kondo N, Takagi D, et al. Combined effects of eating alone and living alone on unhealthy dietary behaviors, obesity and underweight in older Japanese adults: Results of the JAGES. *Appetite* 2015;95:1-8. 3. Tani Y, Kondo N, Noma H, et al. Eating Alone Yet Living With Others Is Associated With Mortality in Older Men: The JAGES Cohort Survey. *J Gerontol B Psychol Sci Soc Sci* 2017 Jan 15. [Epub ahead of print]		
Expected Supervisors in NTU: Wei J. Chen.		
Expected Supervisors in UB: Catherine Bennetau		

Student Name:	Home University:	Professor at UT:
Mamiko Mizuno	UT	Masao Ichikawa
Comprehensive Report Title (Tentative): Obesity in low- and middle-income countries		
Study Topic in UT: Global epidemic of obesity		
Current activity at UT in the lab: Mamiko is currently reviewing literatures on the study topic, narrowing her focus on low- and middle-income countries or settings. In the fight against obesity, restricting unhealthy diets is a common approach but often challenging where such diets are only accessible especially for the poor. So, instead of changing their diets, making use of functional ingredients in their current diets is her proposed approach. More specifically, she is planning to use flavonoid in the diets to help inhibit lipid absorption and to see whether it works. For this, she needs to be equipped with epidemiologic and statistical skill to plan a field trial or experiment.		
Expected Supervisors in NTU: Chang-Chuan Chan		
Expected Supervisors in UB: Catherine Bennetau		

Student Name:	Home University:	Professor at UT:
Romain Garrigues	UB	Masao Ichikawa
Comprehensive Report Title (Tentative): Genome modifications to help humanity: To be fed or to be cured		
Study Topic in UT: Public views on GMOs		
Current activity at UT in the lab: Romain is currently reviewing literatures and planning to conduct a web-based survey to investigate public views on GMOs. While he plans to study genetic editing and engineering on insect model in Taiwan and green biotechnologies in France, he chose this study topic in Japan based on his understanding that using GMOs is indispensable to solve global food shortage, and to get the public accept GMOs, he needs to study their views in the first place. Fortunately, there are a large number of previous studies on this topic, so literature review suffices his study. Nevertheless, he is willing and preparing to conduct a survey because he wishes to learn how to do it. To conduct the survey, ethical clearance is necessary in the field of public health, and for this, he should be able to provide rationale for the survey, i.e., how beneficial the survey would be for the public. Just to get an experience never justify the survey. He is advised to obtain ethical approval from his home university if he conducts the survey.		
Expected Supervisors in NTU: Chau-Ti Ting		
Expected Supervisors in UB: Michel Hernould		

Student Name:	Home University:	Professor at UT:
Nobuyuki Akami	UT	Ryosuke Ohniwa
Comprehensive Report Title (Tentative): Comparison of social acceptance of functional foods in Japan, Taiwan and France by the context of transition of scientific information.		
Study Topic in UT: Creating healthy food and drink recipes using Armond and Calnosine with scientific evidence and social value		
Current activity at UT in the lab: 1; Creating healthy food recipe using Armond with scientific evidence and social value; progress seminar once a week in Friday Incubationship seminar. Final competition will be held in January, 2018. 2; Creating recipe of conditional drink using Calnosine (imidazole-di-peptieds) against fatigue with scientific evidence; progress seminar once a week in Friday Incubationship seminar. 3; Scientific literature survey of Calnosine; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 4; Survey of social value of Calnosine in Japan; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 5; Studying the fundamental metabolism of nutrients in human body; progress seminar once a week in Wednesday basic literacy seminar.		
Expected Supervisors in NTU： Ning-Shin Shaw		
Expected Supervisors in UB: Catherine Bennetau		

Student Name:	Home University:	Professor at UT:
Chen-Pang Wang(Andy)	NTU	Ryosuke Ohniwa
Comprehensive Report Title (Tentative): Meta-analysis of functional molecules toward designing the tool for social acceptance of functional food		
Study Topic in UT: Creating healthy food and drink recipe using ginseng and zinc-gluconate with scientific evidence and social value		
Current activity at UT in the lab: 1; Creating healthy food recipe using Ginseng with scientific evidence and social value; progress seminar once a week in Friday Incubationship seminar. Final competition will be held in January, 2018. 2; Creating recipe of conditional drink using zinc-gluconate against brain fatigue with scientific evidence; progress seminar once a week in Friday Incubationship seminar. 3; Scientific literature survey of zinc-gluconate; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 4; Survey of social value of zinc-gluconate in Japan; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 5; Scientific literature survey of caffeine and catechin.		
Expected Supervisors in NTU：Han-Yi E. Chou		
Expected Supervisors in UB：Catherine Bennetau		

Student Name:	Home University:	Professor at UT:
Emilie Gericot	UB	Ryosuke Ohniwa
Comprehensive Report Title (Tentative): The use of plants or alternative products to struggle against a major public health issue : the mineral deficiency		
Study Topic in UT: Creating healthy food recipe using Citrus (Bergamot and Sudachi) and Molasses, with scientific evidence and social value		
Current activity at UT in the lab: 1; Creating healthy food recipe using Citrus and Molasses with scientific evidence and social value; progress seminar once a week in Friday Incubationship seminar. Final competition will be held in January, 2018. 2; Scientific Survey of mineral through Molasses. 3; Scientific literature survey of Stain-like molecules Melitidin and Bruieridin, Limonene, and alpha-Pinene in Bergamot. In addition, survey of the contribution of citrus to uptake minerals; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 4; Survey of social value of Bergamot and Molasses; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar.		
Expected Supervisors in NTU：Ning-Sing Shaw		
Expected Supervisors in UB; Jean-Michel Mérillon		

Student Name:	Home University:	Professor at UT:
Minagi Uchida	UT	Ryosuke Ohniwa
Comprehensive Report Title (Tentative): Creating Human Body Journey Map of Functional Molecules toward Developing Recipes of Functional/Healthy Food.		
Study Topic in UT: Creating healthy food recipe using Citrus with scientific evidence and social value		
Current activity at UT in the lab: 1; Creating healthy food recipe using Calamansi (Citrus) with scientific evidence and social value; progress seminar once a week in Friday Incubationship seminar. Final competition will be held in January, 2018. 2; Scientific literature survey of flavonoids in Citrus including Calamansi; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 3; Survey of social value of Calamansi in Japan; completed two presentations (each time for 40min) in Monday/Tuesday scientific seminar. 4; Studying the fundamental metabolism of nutrients in human body toward creating Human Body Journey Map; progress seminar once a week in Wednesday basic literacy seminar.		
Expected Supervisors in NTU：Ning-Sing Shaw		
Expected Supervisors in UB：Catherine Bennetau		

Student Name:	Home University:	Professor at UT:
Marie-Dominique Jolivet	UB	Ezura Hiroshi
Comprehensive Report Title (Tentative): Gemini virus resistance in cassava crops		
Study Topic in UT: Generation of GABA-rich melon by CRISPR/Cas9 technique		
Current activity at UT in the lab: 1. Literature search and study on GABA accumulation and its regulation mechanism (s) in plants. 2. Learning of the handling rules of genetically modified organisms (GMO) by the lecture for recombinant DNA experiments. 3. Learning the principle of CRISPR/Cas9 technology. 4. Construction of CRISPR/Cas9 vectors to mutagenize glutamate decarboxylase (GAD) genes in melon. 5. Learning of *in vitro* protein expression system and enzymatic assay method. 6. Learning of transformation technique of melon.		
Expected Supervisors in NTU：Shih-Shun Lin		
Expected Supervisors in UB： Michel Hernould		

Student Name:	Home University:	Professor at UT:
Meng-Ting Yu	NTU	Kumagai Yoshito
Comprehensive Report Title (Tentative): Risk assessment of pesticide residue form tea in Taiwan/Japan and its implication for public health		
Study Topic in UT: Risk assessment		
Current activity at UT in the lab: She was starting an internship under guidance of Shoji Nakayama who is a visiting professor of UT and the head of Exposure Dynamics Research Section, National Institute for Environmental Studies because she is interested in pesticide and human health.		
Expected Supervisors in NTU: Chang-Chuan Chan		
Expected Supervisors in UB: Catherine Benneteau		

Student Name:	Home University:	Professor at UT:
Szu-Chun Yang	NTU	Takahashi Satoru

Comprehensive Report Title (Tentative):
Prediction of pathological variations in Large Maf transcription factors in human.

Study Topic in UT: Research about microbiota

Current activity at UT in the lab:

1. Summarize reported mutations in large Maf transcription factors in human by analyzing published paper.
2. Establish searching method for sequence variations of large Maf transcription factors in human genome database.
3. Summarize sequence variations of large Maf transcription factors in human genome database.
4. Predict pathological variations of large Maf transcription factors from these results.
5. Expand this method for Precision Medicine.

Expected Supervisors in NTU：TK Lee

Expected Supervisors in UB：Need UB's help to contact Prof. Noël Thierry

(Research keywords: Precision medicine, microbiome, NGS, Mass spectrometry)

Student Name:	Home University:	Professor at UT:
Li-Yun Lin	NTU	①Takuma Genkawa ②Osamu Ohneda

Comprehensive Report Title (Tentative):Comparison and Evaluation of different Contents in Grapes of Different Varieties (in Taiwan, Japan and France) Using NIR Spectroscopy

Study Topic in UT:

Topic 1: Comparison and Evaluation of different Contents in Grapes of Different Varieties (in Taiwan, Japan and France) Using NIR Spectroscopy

Topic 2: Analyses of the effect of natural compounds on proliferation and differentiation activities of AT-MSCs.

Current activity at UT in the lab: Topic 1:

1) Experiments: measurements of NIR spectra of intact grape, grape juice, and sugar solution.

2) Data analysis: study on multivariate analysis for spectral data analysis such as principal component analysis, regression analysis, and discriminant analysis with commercial package "The Unscrambler".

3) Lecture and discussion: Weekly lecture and discussion on every Tuesday for basics of NIR spectroscopy and multivariate analysis.

4) Text books: Near-Infrared Spectroscopy in Food Science and Technology by Yukihiro Ozaki (Editor), W. Fred McClure (Editor), Alfred A. Christy (Editor).

Topic 2:

Regenerative medicine using adipose tissue-derived mesenchymal stem cells (AT-MSCs) currently attracts many attentions as a novel therapeutic approach for refractory disorders. However, the effect of natural compounds on AT-MSCs has not been fully understood. In order to investigate how natural compounds affects to AT-MSCs for the treatment of many diseases, Jamie Lin evaluated the effects of 22 natural compounds with the different doses.Firstly, she evaluated the proliferative activity of AT-MSCs in the presence of natural compounds. She succeeded to establish the screening method and found several compounds have the strong inhibitory effects on AT-MSCs growth. Next, she plans to increase the number of samples and measure the effects of the natural compounds on the differentiation activity of AT-MSCs.

Expected Supervisors in NTU：Summing Chen

Expected Supervisors in UB：Need UB's help to contact Prof. Stéphanie Krisa

(Research Keywords: Near Infrared (NIR) Spectroscopy, grape, fruit quality, anthocyanin)

Student Name:	Home University:	Professor at UT:
Kimberley Massei	UB	Yoshihiro Okabe (Hiroshi Ezura)

Comprehensive Report Title (Tentative):
Functional metabolites contained in fruits, and their practical use for health improvement

Study Topic in UT: Miraculin production in transgenic lettuce (Prof. Ezura lab)
/Evaluation of antioxidant activity in strawberry (Prof. Kumagai lab)

Current activity at UT in the lab (Prof. Ezura lab): Supervised by Yoshihiro Okabe, Kyoko Tanase

1. Mass production of a taste modifying protein-Miraculin by genetic engineering of leaf lettuce (*Lactuca sativa* var. crispa). Generation of transgenic lettuce accumulating miraculin protein by using Agrobacterium mediated transformation is ongoing.
2. Bibliographic survey: topics related to a taste-modifying protein-Miraculin (production system, action).
   The objective of this lab work is to study how to produce functional compounds by genetic engineering of crops (lettuce, tomato etc.), also to explore its practical use.

Current activity at UT in the lab (Prof. Kumagai lab): Supervised by Yumi Abiko.

1. Evaluation of antioxidant activity in strawberry.
2. Bibliographic survey: topics related to method for analyzing antioxidant activity of fruits and vegetables.

Expected Supervisors in NTU: SHIH-TONG JENG

Expected Supervisors in UB: Philippe Gallusci

Student Name:	Home University:	Professor at UT:
Valentin Leannec-Rialland	UB	Junichi Peter Abe

Comprehensive Report Title (Tentative):

Creating healthy daily diet using fungi based on some interesting chemical substances

Study Topic in UT:

1; Studying basic and applied mycology
2; Creating recipes of healthy / functional foods; from science to market
3; Practical studies on mycology

Current activity at UT in the lab:

1; Scientific literature survey of fungi; completed two presentations (each time for 40 min) in Monday/Tuesday scientific seminar.
2; Survey of social value of fungi; completed two presentations (each time for 40 min) in Monday/Tuesday scientific seminar.
3; Creating healthy food recipe using Ginger with scientific evidence and social value; progress seminar once a week in Friday Incubationship seminar. Final competition will be held in January, 2018.
4; Creating recipe of conditional drink using Carnosine against fatigue with scientific evidence; progress seminar once a week in Friday Incubationship seminar.
5; Seminars in plant parasitic mycology in Tuesday

6; Lessons on mycology in Tuesday; completed one presentation at the end of the semester. 7;
Visiting of Mushroom production company (planning)
8; Analyzing of interesting chemical substances in some mushrooms

Expected Supervisors in NTU: Tang-Long Shen

Expected Supervisors in UB: Gérard Barroso

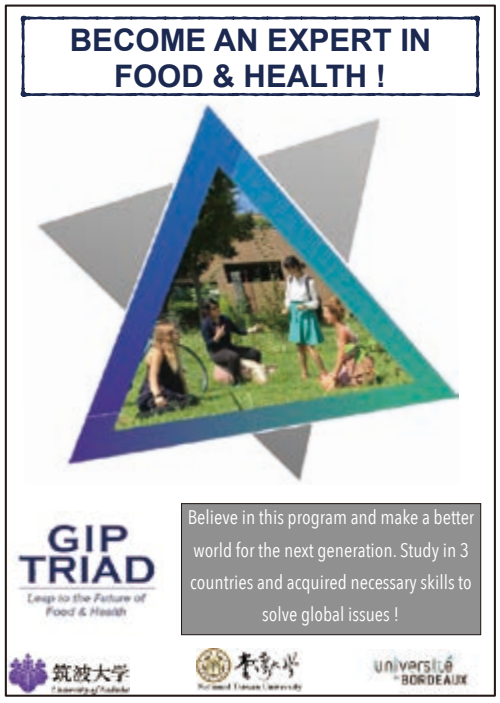
Dormitory

University of Tsukuba

National Taiwan University

University of Bordeaux

GIP promotion material



GIP-TRIAD promotion poster was created by students.

GIP-TRIAD Newsletter

Sept. 2015

Vol. 1

CONTENTS

GIP TRIAD

Leap to the Future of Food & Health

1 Introduction

Starting with this volume, the Global Innovation Joint-Degree Program (GIP-TRIAD) aims to regularly publish the *GIP-TRIAD Newsletter* to share the latest information and developments related to the program. The scope of this newsletter is to report on the recent activities of both students enrolled in the program and the related teaching faculty. We hope that this newsletter provides readers with an interesting and informative glimpse into our groundbreaking degree program.

2 Activities

Faculty and Student Exchange

Biodiversity, Agriculture and Culture of Taiwan

Two students from the Graduate School of Life and Environmental Sciences participated in the special "Biodiversity, Agriculture and Culture of Taiwan (BACT)" summer program at National Taiwan University (NTU). The program, which takes place over about four weeks, gives participants the first-hand opportunity to study and learn not only about Taiwanese agriculture and biodiversity, but also about Taiwanese culture.

Summer Research Program at University of Tsukuba

The 6th Summer Research Program, attended by about 40 students from University of Tsukuba's global partners, was held in late-July 2015. During the intensive two-week program, participants experienced leading-edge research techniques by dividing up into different labs in the Graduate Schools of Medical Science and Life and Environmental Science. Students showcased their work during presentation sessions on the final day. Participants included twelve students and two lab assistants from National Taiwan University, and seven students from University of Bordeaux.

Summer Research Program: Seminars

Three professors invited by GIP-TRIAD gave enlightening special seminars for the Summer Research Program: Assoc. Prof. Han-Yi Chou (NTU Graduate Institute of Oral Biology) on 7/23; Prof. Jon M. Fukuto (Sonoma State University Department of Chemistry) on 7/25; and Assoc. Prof. Tang-Long Shen (NTU College of Bioresources and Agriculture) on 7/31.

Summer Research Program: Farewell Party

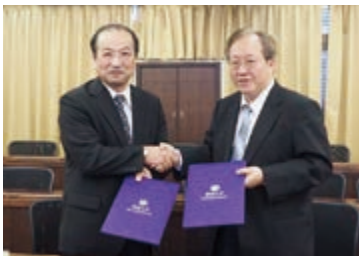



GIP-TRIAD plans to continue future involvement in the Summer Research Program and support the unique opportunity it provides students for international exchange with other universities.

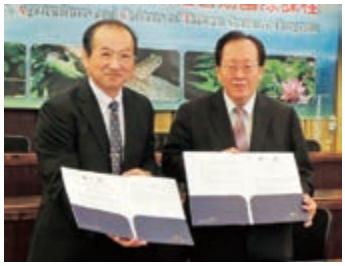
DDP/JDP Agreement-Related

Student Exchange Agreement Concluded between the University of Tsukuba Graduate School of Life and Environmental Sciences and the National Taiwan University College of Bioresources and Agriculture.

A delegation from the University of Tsukuba visited National Taiwan University to complete a student exchange agreement between the Graduate School of Life and Environmental Sciences and the College of Bioresources and Agriculture (NTU) on April 19, 2015.




Signing Ceremony for the Global Food Security Double-degree Program between the University of Tsukuba Graduate School of Life and Environmental Sciences' Master's Program in Agro-bioresources Science and Technology and National Taiwan University College of Bioresources and Agriculture's Master's Program.



On July 29, Prof. Hiroshi Ezura, Chair of the Graduate School of Life and Environmental Sciences (UT) and Prof. Yuan-Tay Shyu, Dean of the College of Bioresources and Agriculture (NTU), concluded an academic agreement for a Global Food Security Double Degree Program (GFS-DDP). Enrolled first-year NTU graduate students will begin taking courses under this agreement in September 2015, followed by selected first-year students from the Graduate School of Life and Environmental Sciences (UT), who are scheduled to begin from April 2016. Students in the program spend their first semester at their home university and travel to the relative partner university from their second semester (where they must reside for at least one year.) There, students continue their coursework and research abroad under the guidance of their academic advisor, and return to their home university for their final semester, where they are expected to prepare and defend their research in a graduation thesis. This program offers students the opportunity to acquire master's degrees from both universities by taking courses in English and only preparing a single graduation thesis. (*Original Japanese text by Prof. Junichi P. Abe*)

Prof. Hiroshi Ezura (*Front left*), Chair of the Graduate School of Life and Environmental Sciences (UT); Prof. Yuan-Tay Shyu (*Front right*), Dean of the College of Bioresources and Agriculture (NTU); (*Back rows*) Chair and curriculum committee members for the College of Bioresources and Agriculture.

University of Tsukuba Delegation Visit to the University of Bordeaux

On July 20, Specially Appointed Professors for the Office of Global Initiatives (UT) Prof. Teruo Higashi (Head of the Campus in Campus (CiC) Initiative), and Prof. Jouji Kijima (Head of UT's Europe-based activities) traveled to University of Bordeaux (UB) to meet UB President Manuel Tunon de Lara and VP Vincent Dousset (Head of International Relations at UB). Acting as an emissary for UT President Kyosuke Nagata, Prof. Higashi travelled to France to personally invite President Tunon de Lara to Tsukuba Global Science Week 2015, to which President Tunon de Lara accepted at the meeting. Following this, Prof. Higashi attended a meeting for planning the implementation of the CiC Initiative, organized by the International Office of University of Bordeaux and the UT Bordeaux Office. In addition to these activities, Prof. Higashi spent time laying groundwork for the implementation of GIP-TRIAD at UB.

President Manuel Tunon de Lara meets with Prof. Teruo Higashi and Prof. Jouji Kijima

Meeting at the University of Bordeaux International Office (*from the left*: Vice-rector for International Relations Dr. Laurent Servant, Vice President Dr. Vincent Dousset, and Prof. Teruo Higashi.)

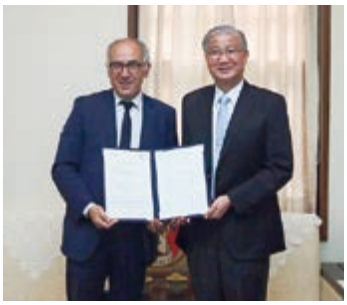
On July 21 and 22, a delegation from the UT Department of Educational Promotion lead by Prof. Shinobu Sato (Head of the UT Office of Educational Planning) visited the University of Bordeaux. During their visit, the delegation actively met with officials to gather information about the UB educational system for the purpose of creating an internationally comparable education system at UT. Following these activities, the delegation then visited the UT European Office on UB Victoire Campus. At both sites, the delegation actively laid groundwork for the implementation of GIP-TRIAD at UB.
(*Original Japanese text by Prof. Chiaki Matsukura*)

Prof. Shinobu Sato stands for a formal greeting during the meeting at UB.

(*Back row from the left*) Mr. Akio Motomura, Prof. Demar Taylor, Mr. Emmanuel Frouté, Prof. Jouji Kijima, Ms. Fumi Tanaka; (*Front row from the left*) Prof. Yuuichi Yamaoka, Prof. Shinobu Sato, Prof. Teruo Higashi, Assoc. Prof. Masahiro Tanaka.

University-level Agreement Concluded between UB and NTU

University of Bordeaux and National Taiwan University, two important partner universities for the University of Tsukuba, recently concluded a university-level agreement. It is expected that this agreement will help facilitate three-way exchange between the universities.



Prof. Arthur Lander's (UCI) Visit to National Taiwan University

Dr. Arthur Lander, professor at UT partner University of California, Irvine (UCI), recently traveled to Taiwan to meet with NTU officials.

Preparations to Establish a University of Tsukuba Alumni Association in Taiwan

On June 19, UT alumni currently residing in Taiwan gathered in Taipei to discuss and prepare for the establishment of a University of Tsukuba Alumni Association in Taiwan.

GIP-TRIAD Coordinator Prof. Yoshito Kumagai's Visit to National Taiwan University (NTU)

GIP-TRIAD Coordinator Prof. Yoshito Kumagai recently visited NTU, where he met with the Head of Academic Affairs to discuss the NTU course curriculum, and with the Heads of the Colleges of Life Science and Medicine to discuss both institutions' medical courses and possibilities for future interaction.

3 Relevant Information about Studying Abroad

1. Tobitate Ryugaku Japan

The "*Tobitate Ryugaku Japan*" Program, which started in 2014, is a system to support and encourage Japanese students to study abroad. It is supported by both the Japanese government (MEXT) and private institutions.

Application Conditions:

① Applicant is a Japanese National or has obtained permanent residence in Japan;
② Applicant is 30 years old or younger on April 1 of the planned year for studying abroad;
③ Applicant meets relevant criteria for Type II Scholarship by the Japanese Student Service Organization (JASSO). (Applicants should inquire at their home university whether or not this is applicable.);
④ Applicant fulfills all other requirements outlined in the relevant recruiting information.

(*Please see the "*Tobitate Ryugaku Japan*" homepage (http://www.tobitate.mext.go.jp/) for more details about the application process and its requirements.)

2. Innovation Internship 100

"Innovation Internship 100," held as part of the "French Japanese Innovation Year," is an overseas internship program that will start in Japan from October 2015. It is aimed at Japanese students aged 30 or younger who wish to intern in the field of innovation.

A list of internship positions and accepting companies available through this program and relevant application details are available by accessing the "France Alumni Japon" website and clicking on "Innovation Internship 100."
(*Scheduled to be published from Sept. 15.)

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AMBASSADE DE FRANCE
AU JAPON

3. Government of France Scholarship for Overseas Students

The Government of France Scholarship System for Overseas Students is a system that is available for Japanese students and postdoctoral researchers who aspire to study (through master, doctoral, or double degree programs) or conduct research in France. Successful applicants are selected based on their application documents and a face-to-face interview. Applicants are asked to submit a research proposal and make necessary arrangements with the accepting institution in France prior to applying for the scholarship. Scholarship recipients can receive support for a period of 6 to 12 months.

Details are available in the following URL: (http://www.ambafrance-jp.org/article2915#t-5035) (Japanese and French only).

4. Monsanto Japan Ltd. Support System for Overseas Students

Monsanto Japan Ltd. has generously offered to provide support for select students who will enroll in the Global Food Security Course (double-degree program). Applications will be accepted from late Novemver 2015.

Relevant Details

(1) ***Qualifications for Applying***: Applicants must be enrolled in the Double Degree Program Global Food Security Course and must have a strong record of academic achievements.

(2) ***Number of Students to be Awarded Support***: Two students

(3) ***What's Supported?***: Partial support for overseas travel and accommodation expenses

(4) ***How to Apply***: Applicants should prepare and submit the necessary documents as outlined in the Support Recruitment Guidelines released in late Novemver 2015.

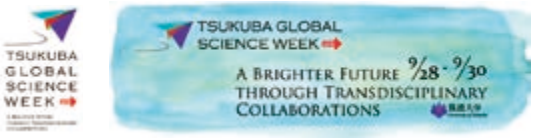
(5) ***Selection***: Applications will be screened in two parts (documents and interview) by a screening committee made up of representatives of both University of Tsukuba and Monsanto Japan Ltd.

(6) ***Obligations for Support Recipients***: Successful applicants who are granted support will be asked to present the results of their research and work abroad at Monsanto Japan Ltd. before graduation.

(7) ***Inquiries***: Contact Prof. Yoshihiro Okabe, University of Tsukuba E-mail: Okabe.Yoshihiro.gp@u.tsukuba.ac.jp Tel: 029-853-6005

4 Event Information

1. Tsukuba Global Science Week (TGSW) 2015



GIP-TRIAD will hold its 3rd International Conference during TGSW 2015 to discuss the latest program planning and developments. Additionally, several faculty members related to GIP-TRIAD from both UT and its partner universities will present at different sessions during the conference (details below).

- 3rd International Conference for the Global Innovation Joint-Degree Program (9/30, 10:30 – 13:00, 4F 402)
- Plant Science for Sustainable Agriculture and Food Security (9/28, 10:15 – 13:00, 3F 303)
- Imaging Science Cafe: for Biology and Medicine (9/29, 17:15 – 19:50, 4F 406)
- Public Health & Nursing Session Building Research Capacity in Global Health: Opportunities and Challenges (9/28, 14:15-17:15, 4F 406)

2. The 12th Solanaceae Conference

The 12th Solanaceae Conference, an international academic gathering to discuss the latest developments in solanaceae research, will be held in Bordeaux, France October 25–29, 2015. Several faculty members and students from the University of Tsukuba will attend the event, which is being organized by INRA - University of Bordeaux (with the support of University of Tsukuba).

5 Editor's Note

Thank you very much for reading Volume 1 of the GIP-TRIAD Newsletter! This Newsletter was created to compliment the GIP-TRIAD Website (http://www.gip.tsukuba.ac.jp/english/index.html - coming soon!) as a means to regularly share the latest information and developments related to the program. We aim to keep the Newsletter interesting and relevant, and as such we truly appreciate any and all feedback regarding its content.

Inquiries/Comments can be directed to:

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GIP-TRIAD Newsletter

Jan. 2016
Vol. 1

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GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

Welcome to Volume 1 of the GIP-TRIAD Newsletter! Formally known as "GIP," GIP-TRIAD has updated its name to better reflect its vision for the three-way joint degree program between University of Tsukuba(UT) and its two partner universities: University of Bordeaux (UB) and National Taiwan University (NTU). This newsletter is dedicated to publishing the latest information related to GIP-TRIAD, centering particularly on the activities of faculty and students. This volume contains brief reports on the international exchange events and other activities that took place involving University of Tsukuba and its partner universities for GIP-TRIAD between September and November 2015 including Tsukuba Global Science Week 2015.

2 Activities

The Third International Conference for Global Innovation Joint-Degree Program (GIP-TRIAD)

On September 30, GIP-TRIAD held its Third International Conference for the Global Innovation Joint-Degree Program at the Tsukuba International Conference Center as a part of TGSW2015. The conference was attended by related faculty and staff from both University of Tsukuba and its partner universities National Taiwan University (NTU), University of Bordeaux (UB), and University of California, Irvine (UCI) to discuss the state of progress for the establishment of the joint-degree program under GIP-TRIAD.

Presentations from University of Tsukuba included and introduction to the updated scheme for a three-way joint degree by Coordinator Prof. Yoshito Kumagai (Faculty of Medicine), as well as other presentations by Assoc. Prof. Toshihiro Kameda (Faculty of Engineering, Information and Systems), Assoc. Prof. Helmut Yabar (Faculty of Life and Environmental Science), and Prof. Hirohisa Nagai (Grad. School of Business Science) about potential areas for future collaboration with GIP-TRIAD. UT's partner universities also prepared presentations about relevant existing programs and systems for double/joint degrees, and the respective progress made towards the establishment of GIP-TRIAD. Speakers included Prof. Ming-Ju Chen (NTU College of Bioresources and Agriculture), Prof. Hsinyu Lee (NTU College of Life Science) and Mr. Emmanuel Frouté (UT Bordeaux Office in UB). The presentations were followed by an open discussion session in which attendees shared ideas on what necessary actions must be taken to prepare GIP-TRIAD to begin in 2017 as targeted.

Faculty and Student Exchange

National Taiwan University Summer Program (August 16~29)

Ten master-level graduate students from University of Tsukuba Graduate School of Comprehensive Human Sciences participated in this year's National Taiwan University (NTU) "Summer Program Plus N1." During the first week of the two-week program, students received practical training in biotechnology at the NTU Center for Biotechnology. During the second

week, students had additional training in leading research techniques at laboratories in the NTU College of Medicine, College of Life Science, and College of Bioresources and Agriculture. On the final day, students presented the results of their research from each of the labs visited during the program. This program is held part of a series of collaborative programs with NTU including a spring-semester distance learning course (in molecular and cellular biology), mini-symposia, and TA activities during the 2015 Tsukuba Summer Research Program. These collaborative activities are organized to allow students from both universities to experience the roles of both "host" and "guest" and cultivate not only knowledge and lab techniques specific to their research, but also improve their skill for international communication. GIP-TRIAD also plans to be involved with this collaborative program after it starts in 2017.

Tsukuba Global Science Week 2015 (TGSW2015)

University of Tsukuba Overseas Alumni Conference 2015

The 2015 University of Tsukuba Overseas Alumni Conference took place during TGSW2015 and was attended by representatives of UT's overseas alumni network, including National Taiwan University of Sport President Hua-Wei Lin, who will serve as the first executive head for the University of Tsukuba Taiwan Alumni Association (planned est. in 2016). Lin is one of the top names in world of Taiwanese baseball, and his illustrious record includes winning an Olympic bronze medal, subsequently coaching the Taiwanese baseball team to an Olympic silver medal, and managing the Taiwanese team at the very first first World Baseball Classic. At the conference, in addition to sharing what he learned while attending the UT, Lin reported on the preparation status of the University of Tsukuba Taiwan Alumni Association to the attendees, including UT President Kyosuke Nagata. The Taiwan Alumni Association is expected to play an important supportive role in GIP-TRIAD, particularly for the purposes of networking with internship companies and broadening employment opportunities for graduates.

Strengthening the GIP-TRIAD Network: NTU Lounge & Imaging Science Café for Biology and Medicine

The "NTU Lounge" session was held during TGSW2015, jointly sponsored by National Taiwan University (NTU), the Human Biology Program (HBP) at University of Tsukuba, GIP-TRIAD, and the UT Taiwan Liaison Office. The session included an introduction of recent activities by representatives of NTU (including the plans to establish a molecular imaging center and a proton therapy center), as well as presentations from NTU and UT students enrolled in the Double Degree Doctoral Program in Biomedical Sciences between NTU College of Bioresources and Agriculture and the UT Graduate School of Comprehensive Human Sciences about their many experiences in the program, including the many differences in their daily lives. Session guests were treated to tea provided by NTU and other refreshments prepared by University of California, Irvine. The session was attended by about 60 faculty and students, including UT President

Kyosuke Nagata and University of Bordeaux President Manuel Tunon de Lara. The session was a successful opportunity for the partner universities in GIP-TRIAD to deepen their mutual understanding of each other's academic program.

Following the NTU Lounge, HBP, GIP-TRIAD, and UT's Liaison Offices in Bordeaux, Irvine, and Taiwan jointly held the "Imaging Science Café" on the theme of cutting-edge imaging techniques and their application in medical and biological science. Speakers included Prof. Satoru Takahashi (UT), Assoc. Prof. Kentaro Hatano (UT), Assoc. Prof. Tsu-Ming Liu (NTU), UB Vice President Vincent Dousset, and Assoc. Prof. Arash Kheradvar (UCI). The session was held in a relaxed style in which attendees enjoyed light refreshments while listening to each of the session presentations. Prior to the session, invited guests were also treated to a tour of the UT Proton Therapy Center. Both the Imaging Science Cafe and the Proton Therapy Center tour served as a good basis for collaboration for future GIP-TRIAD activities between UT, UB, and NTU.

Mutual Growth through the Exchange of Research: Student Research Presentation Competition

Organized by the UT Faculty of Medicine, the Student Research Presentation Competition gave participating students the opportunity to present their research on life science-related topics. Each of the 28 oral presentations and 39 poster presentations were scored, and awards were given to the students whose research and presentation were most highly evaluated. From UT, 23 students gave oral presentations and 31 gave poster presentations. Ten students participated from National Taiwan University (including 2 from the College of Bioresources and Agriculture, 4 from the College of Life Science, 3 from the College of Medicine, and 1 from the College of Public Health). Of those, 2 gave oral presentations, while the remaining 8 gave poster presentations. One student attended from the University of Bordeaux and gave an oral presentation. Of the students awarded for their presentations, 13 were from UT and 3 from NTU. It is expected that through such research presentations, GIP-TRIAD students will discover new starting points, or "seeds," for future collaborative research.

Tunis-Taiwan-Bordeaux Joint Workshop

The fundamental aim of GIP-TRIAD is to cultivate advanced professionals who can actively work at the international level to solve global-scale problems. As an opportunity to lay groundwork for this and similar goals and deepen the mutual understanding between global partners in France, Tunisia, Taiwan, and Japan, the UT Offices in France, Tunisia, and Taiwan jointly organized this session in which they held discussion about research on social problems in each country.

Other Recent Activities and Notifications

Long-distance Learning through Simultaneous Teleconferencing

From October, National Taiwan University, University of Tsukuba, and Kyoto University started an autumn distance learning course on cancer biology. The start of the course corresponded with the beginning of the fifth year of collaboration between the three universities. The course is held once a week for a total of 10 weeks, and the class sessions are composed of a combination of English-language lectures by faculty from each university and presentations of research papers in English by students. Preparation for the student paper introductions challenges students by requiring them to prepare outside of the classroom, and the overall experience is valuable in that it helps students develop their communication and presentation skills. It is planned that students enrolled in GIP-TRIAD will also participate in this course as part of the curriculum.

Visit to the Bordeaux Office by the First Secretary of the the Japanese Consulate in France

On August 28, the First Secretary of the Embassy of Japan in France, Mr. Kohei Ohkawa, visited the UT Bordeaux Liaison Office during a visit to University of Bordeaux campus. In addition to being introduced to activities conducted between UT and UB including the Campus-in-Campus scheme and the current progress towards establishment of GIP-TRIAD, Ohkawa participated in discussions with the Bordeaux Office about internationalization at the university and collaborative efforts with the embassy, which is fully endorsed by GIP-TRIAD.

Attendees pose for a picture after the meeting. (*From the left:* Assoc. Prof. Kentaro Mori (UB), Mr. Kohei Ohkawa (First Secretary, Embassy of Japan in France), Prof. Joji Kijima (Director, Bordeaux Liaison Office), Véronique Debord-Lázaro (Director, University of Bordeaux International Office), Prof. Chiaki Matsukura (UT, GIP-TRIAD))

Relocation of the UT Bordeaux Liaison Office to University of Bordeaux's Victoire Campus

The UT Bordeaux Liaison Office, originally established in October 2013 at UB's Talence Campus, completed its relocation to UB's Victoire Campus in July of this year. The Liaison Office is managed and operated by three members: its Director, Prof. Joji Kijima; a long-term resident faculty member, Prof. Chiaki Matsukura (Faculty of Life and Environmental Sciences, UT); and its administrative manager, Mr. Emmanuel Frouté. On October 22, the new Bordeaux Office held an opening ceremony as part of its International Week, which was attended by UB President Manuel Tunon de Lara. The office will play a key supportive role for UT students traveling to France through double degree and joint degree programs.

From the Opening Ceremony for the UT Bordeaux Liaison Office at Victoria Campus (*from the left:* Ms. Véronique Debord-Lázaro (Director, UB International Office), Dr. Hélène Jacquet (UB Deputy Executive Director for Research, International, Innovation and Partnerships) UB President Manuel Tunon de Lara, Prof. Osamu Ohneda (Director, UT Office of Global Initiatives), Prof. Dominique Rolin (Scientific Director, Bordeaux Functional Genomics Center), Prof. Michael Kann (Chair, UB Department of Fundamental Microbiology and Pathogenicity), Prof. Joji Kijima (Director, UT Bordeaux Liaison Office).

The Main Building of University of Bordeaux Victoire Campus.

Study Abroad in France Fair

French Cultural Week was held from September 27 to October 4 with the aim of promoting internationalization at UT. As part of the event, a France Study Abroad Fair was held on the evening of October 1 at the Student Commons, and included an introduction to study abroad in France by CAMPUS FRANCE staff, an introduction to the University of Bordeaux by GIP-TRIAD members Mr. Emmanuel Frouté and Prof. Chiaki Matsukura, and a presentation about daily life in France by students who previously studied abroad there. Despite heavy rain on the evening of the event, about 20 students attended and showed their strong interest in study abroad in France by asking questions and actively participating in the fair.

Representatives of the University of Bordeaux brass band perform to kick off the Study Abroad in France Fair.

Employees of CAMPUS FRANCE present about study abroad opportunities in France.

Mr. Emmanuel Frouté and Prof. Chiaki Matsukura introduce University of Bordeaux to attendees.

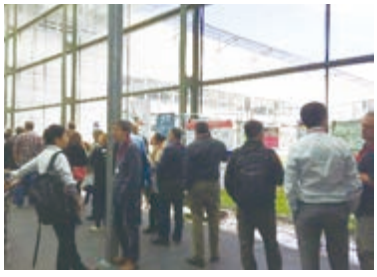
International Week at University of Bordeaux

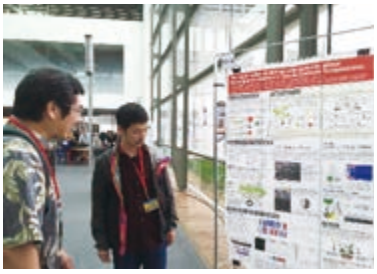
The University of Bordeaux (UB) celebrated its International Week from October 19 to 23. The UT Bordeaux Liaison Office prepared a booth at the event and promoted UT to the students attending. Mr. Emmanuel Frouté attended the event, stationing the booth and promoting GIP-TRIAD and UT activities. Additionally, a reception was held on the night of October 22 and was attended by UB students, foreign students, and faculty alike. UB President Manuel Tunon de Lara gave an opening greeting at the event in which he talked about the exchange activities between UT and UB, followed by a greeting message from Prof. Joji Kijima.

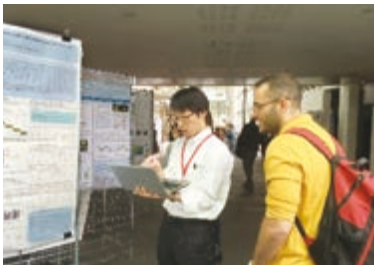
Prof. Joji Kijima (Director, UT Bordeaux Liaison Office) speaks during the University of Bordeaux International Week Event.

The 12th Solanaceae Conference (SOL2015)

The 12th Solanaceae Conference (SOL2015) was held at University of Bordeaux from October 25-29. Twelve participants attended from the University of Tsukuba (including students from the Faculty of Life and Environmental Sciences), giving 2 oral presentations and 9 poster presentations. UT Prof. Chiaki Matsukura, who is currently stationed in Bordeaux for GIP-TRIAD, participated in the conference and gave an oral presentation. Additionally, UT Doctoral Program in Biosphere Resource Science and Technology first year doctoral student Mr. Kentaro Ezura was given an award at the conference for his poster presentation. During the







Scenes from the SOL2015 Conference

conference, faculty and students from several universities and corporate researchers visited both the UT Bordeaux Liaison Office and the UT-INRA BORDEAUX Joint Laboratory. Both the participation of UT faculty and students in the SOL2015 conference and the abovementioned site visits were supported by GIP-TRIAD.

(*Left side*) Visit to the UT Bordeaux Liaison Office; (*Right side*) Corporate researchers tour the UT-INRA BORDEAUX Joint Lab.

··· A message from the Monsanto Company…

MONSANTO

Towards the Establishment of the "Monsanto Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture"

The University of Tsukuba and Monsanto Company have recently established the "Monsanto Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" in support of the collaborative degree (Double-Degree Program (DDP)) and Global Food Security Course between University of Tsukuba Graduate School of Life and Environmental Sciences, University of Bordeaux (France), and National Taiwan University.

Monsanto Company is a global enterprise that provides agricultural technology and services under a corporate social pledge to establish "sustainable agriculture" that provides stable and sufficient food and nutritional resources to the world. It is said that global food resources must be at least *doubled* by 2050 if the world is to feed the projected population of 9 billion people. Meanwhile, it is being predicted that there will be a simultaneous decline in agricultural resources (including water resources) and agricultural productivity as a result of climate change stemming from global warming. Thus, there is a clear demand for technological developments that can establish sustainable agriculture for implementing the food production necessary to offset the predicted limitations in resources. Monsanto Company strives to contribute to the pursuit of this sustainable agriculture by making excellent use of modern techniques primarily through breeding/development of crops created by plant biotechnology (gene combination) and plant breeding, chemical and organic pesticides, and precision farming, among others.

We at Monsanto Company feel that there is a greater need than ever before for young researchers and leaders with a global perspective in the field of agriculture. Upon learning about the great efforts University of Tsukuba has been making to educate and train such young talent in agriculture, we decided to offer a scholarship to contribute to the cultivation of these valued human resources with a global perspective and thus contribute to the shared goals of our institutions.

We believe that such "human resources with a global perspective" are defined as talented persons who have not only specialized knowledge about agriculture and related technologies, but who can also understand the difference between Japanese and foreign cultures/ways of thinking and the strengths and weaknesses of both, negotiate solution strategies in line with that understanding, and have the abilities for problem-solving and communication necessary to implement those solutions with mutually positive outcomes. It is our intention to facilitate the cultivation of such human talent through this scholarship.

Additionally, we understand that the collaborative degree program with University of Bordeaux will allow students to gain practical experience in circular agriculture in France, a major agricultural country. We are greatly expectant that through giving students the opportunity for such experience, this program will produce talented persons who will become strong implementers of the techniques and ideologies they have learned abroad in Japan. Our dream for the scholarship is that the recipients will eventually go on to become the human talent who can view things with an open-minded perspective and propose and implement new models for the promotion of Japanese agriculture.

Seiichiro Yamane
Representative Director
Monsanto Company

Monsanto Company HP
http://www.monsanto.co.jp/

Monsanto Company facebook
https://www.facebook.com/MonsantoJapan

3 Relevant Information about Studying Abroad

"Innovation Internship 100"

Below is the latest available information about "Innovation Internship 100."

Announcing the launch of "Innovation internship 100"

On October 5, the "Innovation Internship 100" was formally commenced with an opening dedication by French Prime Minister Manuel Valls. The "Innovation Internship 100" (part of the "French Japanese Innovation Year") is a new project with the goal of offering students in Japan with the opportunity to experience interning at innovative French corporations.

1. Target Candidates

Students with Japanese nationality and aged 30 or under at the expected time of graduation. Candidates are to be selected by participating corporations based on their abilities and statement of purpose.

2. Participating Corporations

Corporations already listed on the France Alumni website (URL below) include the following:
THALES, MICHELIN, Air Liquide R&D, Sanofi, AXA Group, ORANGE S.A., VALEO LIGHTING SYSTEM, Valeo Systèmes Thermiques, PSA Peugeot Citroën, Fives Intralogistics SA (Detail: https://www.francealumni.fr/ja/poste/japon/partenaire/8765/offres)

3. What do "Innovation Internship 100" interns do?

Selected interns engage in a project related to one aspect of innovation (including scientific technique, industry, financing, cooking, fine arts, marketing, and management, among others). Interns will receive direct supervision and coaching, and be given responsibilities fitting to their abilities and in accordance with the length of the internship. Other details such as language use, remuneration, location, accommodation, etc. are different depending on the accepting corporation. Please see the France Alumni website for more details.

4. Visa

Selected interns can participate in training/professional activities in France with a Working Holiday Visa, which can be obtained free of charge. The only procedures required with regard to the accepting corporation is to sign an agreement defining the details of the internship.

It is possible for selected interns who have already previously been issued a Working Holiday Visa to participate under a different visa category. In this case, it is necessary to prepare and submit a signed three-way written agreement between the selected intern, his/her university, and the accepting corporation at the time of application.

5. Financing & Remuneration

The remuneration details differ by accepting corporation.

4 Editor's Note

Thank you for reading Volume 1 of the GIP-TRIAD Newsletter! Although our newsletter has changed its name, we plan to continue to use it to share the latest information and developments related to the program. Of course, we aim to keep the GIP-TRIAD Newsletter interesting and relevant, so we truly appreciate any and all feedback regarding its content.

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GIP-TRIAD Newsletter

Mar. 2016

Vol. 2

CONTENTS

GIP TRIAD

Leap to the Future of Food & Health

1 / Introduction

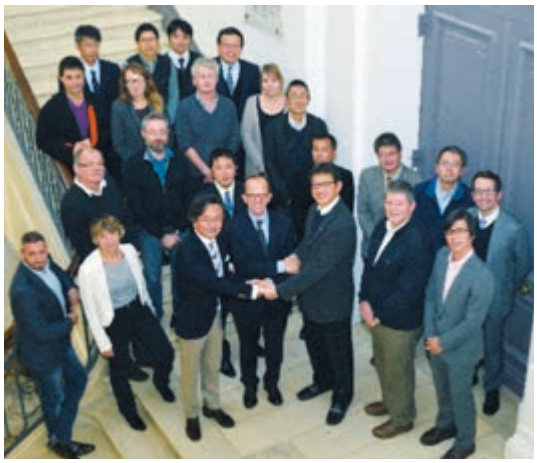
In January, key members from the three partner universities for the Global Innovation Joint-Degree Program (GIP-TRIAD) assembled in Bordeaux, France to advance talks toward establishing the joint degree program. We hope you'll enjoy this issue of the GIP-TRIAD Newsletter, which includes details about this important meeting and other activities and events that took place between University of Tsukuba and its partners for GIP-TRIAD.

2 / Activities

At University of Bordeaux

··· The 4th International Conference for Global Innovation Joint-Degree Program

On January 18 and 19, 2016, GIP-TRIAD held its fourth joint meeting at University of Bordeaux in France. At the meeting, related faculty and staff members from University of Tsukuba and its partner universities for GIP-TRIAD, University of Bordeaux and National Taiwan University, discussed and negotiated details in preparation for the three-way joint degree planned between the universities. Meeting attendees from University of Bordeaux included Vice President for International Affairs Prof. Vincent Dousset, Prof. Dominique Rolin, Prof. Catherine Bennetau, Prof. Phillipe Gallusci, Prof. Thierry Noel, Asst. Prof. Gerard Barroso, Asst. Prof. Valerie Schurdi-Leavaud, Asst. Prof. Kentaro Mori, Asst. Prof. Frederic Delmas, Veronique Debord-Lazaro, Frederic Bertrand, Emilie Bourgois, and Emmanuel Frouté. The meeting was also attended by a delegation from National Taiwan University made up of Prof. Hsinyu Lee and Prof. Tsai-kun Li, and a delegation from University of Tsukuba made up of GIP-TRIAD Coordinator Prof. Yoshito Kumagai, Prof. Masayuki Matsumoto, Prof. Yuichi Yamaoka, Prof. Chiaki Matsukura, Prof. Joji Kijima, Asst. Prof. Ryosuke Ohniwa, Asst. Prof. Junichi P. Abe, Asst. Prof. Nobuhiko Akazawa, Asst. Prof. Yoshihiro Okabe, and Kevin McManus. The two-day meeting began with a special address by Vice President Dousset and confirmation of the agenda by Prof. Rolin, followed by progress report on the state of preparation of GIP-TRIAD by Prof. Kumagai. The remaining sessions of the meeting included detailed discussions of various important considerations for the management of the program, possible issues that may arise, and the respective preparation schedules for different aspects of the program. The meeting was regarded as a success as it provided an excellent opportunity for key members from each university to hold detailed discussions face-to-face and make clear strides toward the planned launching GIP-TRIAD in 2017.





GIP TRIAD Leap to the Future of Food & Health　université de BORDEAUX　筑波大学 University of Tsukuba　國立臺灣大學 National Taiwan University

Interview for University of Bordeaux's Homepage

While visiting Bordeaux for the 4th International Conference for GIP-TRIAD (Jan. 18-19), GIP-TRIAD Coordinator Prof. Yoshito Kumagai and Director of the Biotechnology Center at National Taiwan University, Prof. Hsinyu Lee, were interviewed by a representative of the University of Bordeaux's Marketing & PR Department. During the interview, Prof. Kumagai and Prof. Lee discussed and answered questions about the unique offerings of GIP-TRIAD, which combines agriculture and medical science into an interdisciplinary three-way joint degree. University of Bordeaux published an online article on its homepage following the interview, which can be accessed at the following URL: http://www.u-bordeaux.com/News/A-truly-global-Master-degree .

Prof. Kumagai and Prof. Lee are interviewed by a representative of University of Bordeaux's Marketing Department.

URL: http://www.u-bordeaux.com/News/A-truly-global-Master-degree

Site Visit to INRA-Bordeaux's Château Couhins

While in Bordeaux for the 4th International Conference for GIP-TRIAD, delegates took time to visit Château Couhins, owned by the INRA-Bordeaux National Institute for Agricultural Research. Château Couhins produces a special limited wine commemorating the cooperative link between University of Tsukuba and University of Bordeaux. During the visit, an INRA researcher introduced delegates to Château Couhins' unique approach to viniculture and soil management, and led a tour of the facilities. The INRA-Bordeaux Center serves as home to University of Bordeaux's "Green Campus," and is being explored as a possible location for Fusion of Field and Laboratory Studies coursework in GIP-TRIAD.

Double Degree Program Global Food Security Course Arrival of Inaugural Class Member Mr. Masaki Asachi

On January 6, Mr. Masaki Asachi, inaugural class member of the Global Food Security Course for the double degree program that was launched in Spring, 2015 under the Graduate School of Life and Environmental Sciences Master's Program in Agro-bioresources Science and Technology, arrived at University of Bordeaux—partner for the double degree—to begin his studies for the second half of the course at INRA-Bordeaux Center ("Green Campus"). For the next year, Mr. Asachi will enroll in University of Bordeaux's Plant Biology and Biotechnology Master's Program, completing his master's thesis research under the guidance of Prof. Laure Beven (UB). GIP-TRIAD plans to support this DDP program in cooperation with the University of Tsukuba Bordeaux Office for the success of the program and students such as Mr. Asachi.

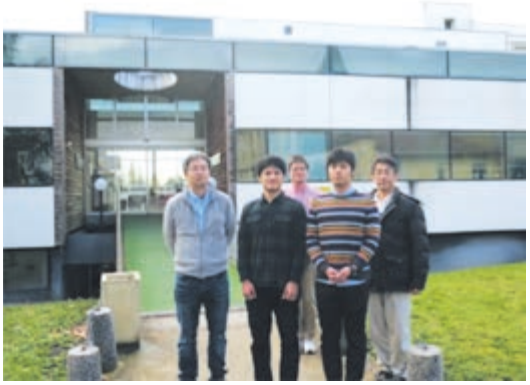
Mr. Asachi and his research advisor Prof. Beven

Site Visit to the Japan-France Joint Laboratory by Prof. Yuichi Yamaoka, Faculty of Life and Environmental Sciences

On January 20, Chair for the Master's Program in Agro-bioresources Science and Technology, Prof. Yuichi Yamaoka, together with Asst. Prof. Junichi P. Abe and Asst. Prof. Yoshihiro Okabe, visited University of Tsukuba's International Joint Laboratory located at INRA-Bordeaux Center (University of Bordeaux's "Green Campus"). During their visit, they met with head representative for University of Bordeaux for the Global Food Security Course (GFS) (Double Degree Program), Prof. Michel Hernould, and interviewed two University of Tsukuba Master's students, Mr. Masaki Asachi (inaugural class for GFC) and Mr. Masaru Takahara (conducting research in Bordeaux from January). The visit was supported by GIP-TRIAD in coordination with the University of Tsukuba Bordeaux Office.

Interview at the laboratory (from the left: Asst. Prof. Okabe, Prof. Yamaoka, Mr. Asachi)

Meeting between Prof. Hernould (right), Prof. Matsukura (center) and Prof. Yamaoka (left)



Prof. Matsukura, Mr. Asachi, Asst. Prof. Abe, Mr. Takahara, and Prof. Yamaoka pose in front of the International Joint Laboratory at INRA-Bordeaux Center.

At University of Tsukuba

Visit to University of Tsukuba by the Embassy Attaché to the French Ministry of Science and Technology

Mr. Guillerme and Prof. Ezura talk in Prof. Ezura's office.

Mr. Cédric Guillerme, Embassy Attaché to the French Ministry of Science and Technology, visited University of Tsukuba to meet with Prof. Hiroshi Ezura, Chair of the Graduate School of Life and Environmental Sciences, to get information about current state of exchange between UT and France in relation to a new grant proposal for research exchange with France. During the meeting, Prof. Ezura explained the recent accomplishments, training, and research achieved at the joint laboratory between the University of Tsukuba Gene Research Center and INRA-Bordeaux Center.

Joint Symposium between University of Tsukuba and University of Bordeaux: "Toward the Synthetic Biology in Bordeaux and Tsukuba"

University of Tsukuba and University of Bordeaux recently held a joint symposium with the theme of Synthetic Biology for the primary purpose of expanding research activities between the partner universities in the new field. Two speakers from University of Bordeaux, Prof. Jean-Jacques Toulm and Prof. Yonathan Afri, were invited to give talks about recent developments in Synthetic Biology at the event. Five speakers from University of Tsukuba Graduate School of Life and Environmental Sciences also participated (Prof. Koji Nakamura, Prof. Tomoki Chiba, Prof. Iwane Suzuki, Prof. Naoki Takaya, and Assoc. Prof. Tohru Ariizumi). It is expected that cooperative activities between UT and UB will expand as a result of this fruitful symposium.

At National Taiwan University

Study Abroad Information Fair for National Taiwan University

On November 8, the University of Tsukuba's Taiwan Office attended a study abroad information fair organized by National Taiwan University. The event included booths prepared by 48 universities from Japan, Asia, Europe, Oceania, and North America, including University of Tsukuba, whose booth was visited by about 100 interested students. Thanks to the hard work of UT Taiwan Office's staff member, Ms. Chia-Yao Lin, UT's booth came in second place in a vote for "best booth" by attendees. It is hoped that many Taiwanese students choose to study abroad at University of Tsukuba, including through GIP-TRIAD.

Ms. Lin introducing UT to interested students


Award for Second Place!

The 1st NTU-UT Joint Mini-symposium on Entrepreneurship Training

The 1st NTU-UT Joint Mini-symposium on Entrepreneurship Training was held at National Taiwan University from January 21 to 23 as an opportunity for faculty from both NTU and University of Tsukuba to share and discuss course offerings at both universities related to entrepreneurship training and education, which is planned as a core component of the GIP-TRIAD curriculum. The three-day symposium was lead by presentations by both Taiwanese and Japanese faculty about the current state of entrepreneurship and entrepreneurship education in both countries, followed by a student presentation competition in which student groups showcased their business planning for a hypothetical business. On the final day, participants visited Sheng Chang Pharmaceutical Co., one of the top corporations for traditional Chinese medicine in Taiwan, and a start-up venture, MUCHO Biotech Co., to catch a first-hand glimpse at the current state of enterprise in Taiwan. Both companies are being considered as possible locations for internships in GIP-TRIAD.


The 1st NTU-UT Joint Mini-Symposium on
Bio-Entrepreneurship Training


Mini-symposium participants


Visit to Sheng Chang Pharm. Co.


Introduction of student groups


Visit to MUCHO Biotech Co.

Visit to the the Japanese Chamber of Commerce and Industry, Taipei

The Japanese Chamber of Commerce and Industry, Taipei (JCCI) has a membership of over 500 Japanese-affiliated companies and organizations. On November 11, a representative of University of Tsukuba's Taiwan Office visited JCCI's administrative office to speak to the General Secretarial Manager and introduce University of Tsukuba's current activities in Taiwan. Following this visit, on February 5 at a monthly meeting for JCCI, University of Tsukuba introduced its international activities, including its plans for GIP-TRIAD, in a presentation titled "International Expansion at the University of Tsukuba: New Graduate Programs for Cultivating Innovative Human Resources," and took the opportunity to administer a questionnaire about GIP-TRIAD to attendees. It is planned that the feedback from these and other questionnaires will be put to use in the planning for GIP-TRIAD and arrangement of corporate internships for GIP-TRIAD students.

Visit to JCCI's administrative office


Presentation at JCCI's monthly meeting

Inauguration Ceremony for the University of Tsukuba Taiwan Alumni Association

The University of Tsukuba Taiwan Alumni Association held its inauguration ceremony on February 20 in Taipei, Taiwan. The ceremony was attended by about 70 alumni currently residing in the area and 21 guests from the University of Tsukuba, including President Kyosuke Nagata and Vice President (Global Affairs) Caroline Benton. At the meeting, Hua-Wei Lin, President of National Taiwan University of Sport and graduate of the University of Tsukuba Master's Program in Health and Sport Sciences (1989), was inaugurated as the first president of the Alumni Association, and the association bylaws were formally established. Representatives of University of Tsukuba's partners in Taiwan including National Taiwan University attended the event and offered congratulations on starting the new endeavor. The event was also attended by UT alumni currently working in industry in Taiwan, who are anticipated to play a supportive and collaborative role in GIP-TRIAD.

A dinner organized by the East Asia Relations Commission was held on the evening prior to the meeting (Feb. 19). It was attended by UT President Nagata and President Jia-Jing Li of East Asia Relations Commission, who took the opportunity to reconfirm their interest to continue to work toward interchange between University of Tsukuba and Taiwan.

During his visit (Feb. 20), UT President Nagata took time to visit the UT Taiwan Office and attend a luncheon meeting hosted by National Taiwan University President Pan-Chyr Yang, where they discussed future research and education collaborations between the two institutions.


Commemorative Photo at the
University of Tsukuba Taiwan Alumni Association Meeting


Dinner Organized by the East Asia Relations Commission


President Nagata's visit to the UT Taiwan Office


Luncheon Meeting with NTU President Yang

Other Information

Information from Monsanto Japan

Monsanto Japan Ltd. recently published information on its website about its support of the University of Tsukuba Graduate School of Life and Environmental Sciences Double Degree Program Global Food Security Course. It is planned that in the future Monsanto Japan will publish the GIP-TRIAD Newsletter on its website, and GIP-TRIAD will link to Monsanto Japan's homepage on its own website, in addition to information sharing between the two with regard to the cultivation of talented human resources at both the university and corporate level.

MONSANTO 筑波大学 University of Tsukuba

Establishment of the "Monsanto Japan Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" in support of the University of Tsukuba Double Degree Program Global Food Security Course

February 2016

In November 2015, The University of Tsukuba and Monsanto Japan Ltd. established the "Monsanto Japan Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" in support of the Global Food Security Course of the Double Degree Programs between University of Tsukuba Graduate School of Life and Environmental Science and the University of Bordeaux and National Taiwan University, respectively.

Global agriculture now faces myriad challenges including the increase in food demand due to population growth and the decrease in arable land and water shortages resulting from global warming. There is a demand for technological developments that can lead to food production through sustainable agriculture in response to these limited resources. Monsanto Company strives to contribute to the pursuit of such sustainable agriculture through the application of various techniques and technologies such as plant breeding, plant biotechnology (gene combination), chemical and organic pesticides, and precision farming through use of data science.

Correspondingly, there is a demand for young researchers and leaders with a global perspective that are capable of realizing a system of sustainable agriculture.

The University of Tsukuba looks to cultivate just such globally capable researchers and leaders in agriculture through its collaborative programs with partners such as the University of Bordeaux and National Taiwan University. In order to do this, University of Tsukuba aims to educate practical and able human resources through first-hand experience such as with circular agriculture in France, a major agricultural country, and intensive farming in Taiwan, yielding techniques and ideas that until now have not existed in Japan.

Monsanto Japan also aims to cultivate such young researchers globally active in agriculture, and as such endorses these collaborative degree programs at University of Tsukuba. As a corporation with the same fundamental interests, Monsanto offers its support in the form of a scholarship system for these programs. Through this scholarship, Monsanto proposes a new model for the promotion of Japanese agriculture from a global perspective, anticipating that it will result lead to the cultivation of talented individuals who can put such model it into action.

About Monsanto Company:

We here at Monsanto Company are dedicated to offering and lending support to a range of effective solutions to the challenge of providing enough food resources to accommodate the continually increasing world population. Our company produces various seeds to meet the production needs of agricultural producers of healthy foods, from fruits and vegetables to major crops such as corn, soy, and cotton. At Monsanto, we work so that agricultural producers may conserve natural resources, and utilizing data for the betterment of agriculture, efficiently make use of water and other important resources, offering sustainable agricultural solutions for protection from harmful insects and disease. Through our programs and partnerships, we work together with agricultural producers, researchers, NPOs, universities, and any other men and women who strive to combat the challenges facing the world. To learn more about Monsanto Company, our company's work, and the twenty thousand women and men we employ devoted to finding solutions to the world's challenges, please visit discover.monsanto.com and monsanto.com. Follow us on Twitter at www.twitter.com/MonsantoCo or on our blog, "Beyond the Rows," at www.monsantoblog.com, where you can subscribe to our RSS News Feed.

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3 Relevant Information about Studying Abroad

"Innovation Internship 100"

Below is the latest information about "Innovation Internship 100" program, which was featured in the previous GIP-TRIAD Newsletter.

"Innovation Internship 100" Starts!

French Japanese Innovation Year, an initiative of French Prime Minister Manuel Valls, was commenced on Oct. 5, 2015. The initiative promotes long-term internships overseas, a practice that is relatively uncommon in Japan. "Innovation Internship 100," created as a part of this initiative, offers students and graduates up to 30-years old and with Japanese nationality the opportunity to intern at top corporations in France for a period of 3-12 months, serving as a strong source of support for those looking to gain employment overseas.

1.Target Candidates

Students with Japanese nationality and aged 30 or under at the expected time of graduation. Candidates are to be selected by participating corporations based on their abilities and statement of purpose.

2.Participating Corporations

Currently, participating corporations include:
THALES, MICHELIN, Air Liquide R&D, Sanofi, AXA Group, ORANGE S.A., VALEO LIGHTING SYSTEM, Valeo Systèmes Thermiques, PSA Peugeot Citroën, Fives Intralogistics SA

3.Outline of "Innovation Internship 100"

Selected interns engage in a project related to one aspect of innovation (including scientific technique, industry, financing, cooking, fine arts, marketing, and management, among others). Interns will receive supervision and coaching at their assigned corporate site and be given responsibilities fitting to their abilities. Other details such as language use, remuneration, location, accommodation, etc. are different depending on the accepting corporation.

4.Visa

Selected interns can participate with a Working Holiday Visa, which can be obtained free of charge. (No other visa-related formalities are necessary; However, selected interns who remained enrolled in their home country university for the period of their internship may need authorization from their university to participate. Please consult with the appropriate university official as necessary.)

It is possible for selected interns who have already previously been issued a Working Holiday Visa or interns who have a signed three-way agreement with the appropriate labor department (*Direction régionale des entreprises, de la concurrence, de la consommation, du travail et de l'emploi*) to participate under a different visa category.

5.Remuneration

Remuneration differs by internship.

※ Note: It is possible to include an internship in France as a part of the Study Abroad Plan in the application for the "*Tobitate!* (Leap for Tomorrow) Study Abroad Initiative," managed by the Japan Student Services Organization (JASSO) under the support of private companies. However, successful or failed Innovation Internship 100 applications do not necessarily qualify/disqualify applicants this program. Furthermore, if an intern is currently enrolled in a Japanese university and the internship activities are considered part of his/her educational training, the remuneration for the internship may not exceed the monthly allowance determined by the program in certain situations. Applicants should refer to the available relevant details when applying.

4 Editor's Note

The interchange between the University of Tsukuba and its partner institutions National Taiwan University and University of Bordeaux has become increasingly active, and as such, educational and research collaborations between the three institutions are similarly expected to increase. Correspondingly, the GIP-TRIAD Newsletter plans to continue to report on these developments and the activities of UT's students and on-site faculty. Of course, we aim to keep the GIP-TRIAD Newsletter interesting and relevant to our readers, so we truly appreciate any and all feedback regarding its content.

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GIP-TRIAD Newsletter

May 2016

Vol. 3

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GIP TRIAD

Leap to the Future of Food & Health

1 Introduction

We hope you'll enjoy this third issue of the GIP-TRIAD Newsletter, which introduces international exchange events and other activities that took place between University of Tsukuba and its partners for GIP-TRIAD.

2 Activities

··· Visit to University of Bordeaux and other institutions in Bordeaux by Prof. Saburo Aoki

From March 21 to 24, Prof. Saburo Aoki, Faculty of Humanities and Social Sciences, Co-Director of ICR, Director of ARENA, visited the Bordeaux office of University of Tsukuba (UT), University of Bordeaux (UB), Université Bordeaux Montaign, and Les Afriqueas dans le monde of Sciences Po Bordeaux with Assoc. Prof. Muneo Kaigo, Head of Humanities Information Science Research Field in ICR and Ms. Rie Inaba, Researcher. On 22 at Bordeaux Office, they shared some information on the progress status of a collaborative session in Tsukuba Global Science Week (TGSW) and on the cooperation in the future with Assoc. Prof. Ronan Hervouet, Deputy Director of the Center Emile Durkheim, Assoc. Prof. Clare Schiff, and Assoc. Prof. Sandrine Rui. On 22 and 23, the members of our university gave lectures in Université Bordeaux Montaigne. On 23, they made a courtesy visit to Prof. Ana Maria Binet, Vice President of UB, and had a discussion with its faculty staffs about the possibilities of promoting the interchange and cooperation between our universities. On the following day, they visited Prof. Vincent Dousset, Vice President of UB, and had a discussion about the same themes with Prof. Michel Brousse and private entrepreneurs.

Meeting at Bordeaux Office

From the left: Prof. Kaigo, Prof. Aoki, Prof. Kijima, Vice President Binet, Prof. Shochi, Ms. Inaba

··· A Soirée on Victoire campus in University of Bordeaux for introducing Japanese Culture

On April 29, A Soirée was held on Victoire campus in University of Bordeaux to introduce Japanese culture. This event was planned by Japanese students studying in UB including students from UT. They worked very hard to prepare Japanese meal from the previous day, and they had a booth for visitors to try the tea ceremony and writing kanji. There was also a corner for raising funds for the disaster by Kumamoto earthquakes and for visitor participation-type events. the Sinobue and Shamisen was played by Japanese students and Yosakoi dance was performed by an external invited organization, both of which everyone was excited about. Japanese pop culture is popular in France and many people are interested in our culture, which led about 150 people to this Soirée. This event must have attracted more interests in Japanese culture from visitors.

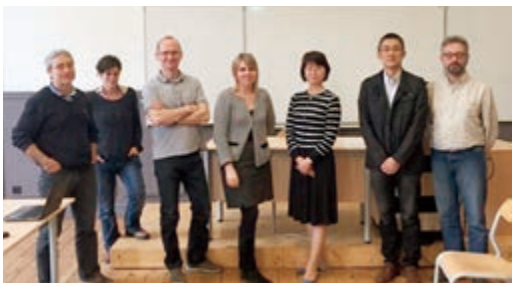
The Introduction of Japanese culture by the organizer

Yosakoi performance by an invited team

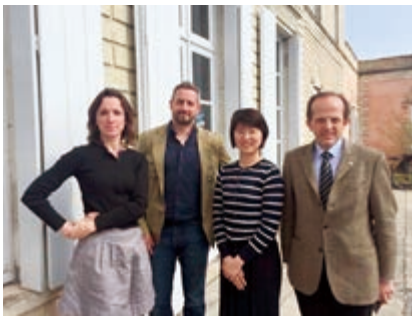
A scene from the Soirée

Visit to University of Bordeaux by Assoc. Prof. Mizuki Oka

From March 24 to 25, Assoc. Prof. Mizuki Oka (Faculty of Engineering, Information and Systems), who works for establishing the Jukebox system, visited UB to have a meeting with its staff on the system. She also made a courtesy visit to Prof. Vincent Dousset, Vice President of UB on 24 and visited the Bordeaux Office on 25. In the future, it is planned to promote the system to share courses among CiC universities including UB and NTU.



Commemorative photo of the meeting on establishing Jukebox system in University of Bordeaux



Courtesy visit to Prof. Vincent Dousset, Vice President of UB. from the left: Ms. Glenda Gilmore (International Communications manager), Mr. Emmanuel Froute (Staff of Bordeaux Office), Assoc. Prof. Mizuki Oka, Prof. Vincent Dousset

Orientation of Summer School Programs held in University of Bordeaux and National Taiwan University

The orientation about the summer program in UB and National Taiwan University (NTU) was held on April 25 for the undergraduate students. Prof. Dominique Rolin, Scientific Director Functional Genomics Center of UB, introduced the program which will be held from July 17 to 30 through Skype. Followed by Asst. Prof. Junichi P. Abe, who introduced BACT Summer Program held in NTU. 40 to 50 students who have interest in studying abroad attended.

Recently, summer programs are becoming one of our regular exchange events and it is hoped that three universities will collaborate and exchanges more through these programs.

URL for the summer program in UB (http://bss-frenchagri.u-bordeaux.fr/en/Program/r642.html)

Prof. Dominique Rolin introduces the summer program in UB through Skype.

Asst. Prof. Junichi P. Abe introduces BACT in NTU.

A scene from the orientation

Visit to University of Tsukuba by Bordeaux Judo Team

From April 19 to May 3, Prof. Michel Brousse, Vice President of the French Judo Federation, and Mr. Jean-Pierre Millon, the coach from Centre d'Education Populaire et de Sport (CREPS de Bordeaux) from the Judo Team of UB, visited UT. During their stay, the Judo Team had training and friendly matches with our Judo team. They also attended a workshop on the form of classical Judo by Prof. Katsuyuki Masuchi and proud skills of the Olympic medalists, in addition to the lectures on sports science and

Courtesy visit to President Kyosuke Nagata (Center: Prof. Michel Brousse)

an interchange session with students of Sciences and Humanities. They had a tour to Sports Performance and Clinic (SPEC), Cyberdyne Studio, Kodokan Judo Institute, and All-Japan Judo Championship matches. They made a courtesy visit to President Kyosuke Nagata and exchanged opinions with our faculty members about possible collaboration between the two universities in various sports fields towards the Tokyo Olympic/Paralympic Games in 2020.


Scenes from young people's interchange between France and Japan

A scene from the tour


Scenes from friendly matches with the University of Tsukuba Judo Team. The judge is Mr. Jean-Pierre Millon.

··· Meeting on Jukebox in NTU

On February 22, Assoc. Prof. Mizuki Oka, Junko Sasaki (Office of Educational Cloud), Yoshiaki Hashino and Kazunori Akiba (Division of Educational Promotion) of UT visited NTU to have a discussion about the Course Jukebox System. In the future, we can share available courses with UB and other partner universities which have the CiC agreement with UT. The courses provided by Joint-degree program including GIP-TRIAD will be on the list.

Participants of the meeting

··· Visit to National Taiwan University by Prof. Toshiharu Enomae

From February 21 to 25, Prof. Toshiharu Enomae, College of Agro-Biological Resource Sciences of UT, visited NTU, and consulted with Prof. Hsiao-Wei Yuan, Chairman, Dept. Forestry and Resource Conservation, about a possibility of using facilities in NTU by our students as the training field overseas. He also visited Xitou, where NTU has an experimental forest, to see a wood processing facility, wood products museum, landscape zones in which people can experience forest bathing. These places are expected to be used by GIP-TRIAD for field training.

Wood Processing Facility

Wood Products Museum

Landscape Zone in Xitou

Office of Experimental Forest

International Medical Science Training Course

Outdoor experience in the forest of NTU

For 10 days from March 10 to 19, ten students of Medical Science experienced practical and laboratory exercises for the purpose of "applying its unique biological resources in Taiwan to medical science". Taiwan is in its tropical and subtropical areas, having unique climate, with many mountains that are over 3000m tall, so they focused on the research capability of NTU, its bioresources, and the Chinese traditional medicine. Those exercises included field works in the forest of NTU, studying Taiwan's distinct biodiversity, and exploring the bio-resources used for health and medical purposes. In the laboratory in NTU, they identified the biological samples that they had collected, and performed a component analyses of the extraction liquid and medical analyses of the effect on cancer cells and active oxygen.

Preparing for cell culture

On the last day of the visit, they studied the method of scientific presentations by presenting their results. During their stay, they visited National Museum of Natural Science, a biotechnology company, an institute for Chinese tea, a factory for wood utilization training, and Chiufen. A number of faculty staff and students of NTU participated in this course, so our students had great opportunities to learn not only how to communicate in English, but also the culture, companies, nature, science in Taiwan, and to think about their own future. This field is expected to be used by GIP-TRIAD.

Visit to Taiwan by President Kyosuke Nagata and Vice President

On April 23, President Kyosuke Nagata and Vice President Caroline Fern Benton visited Taiwan to attend the Board of Directors Meeting of the Association of East Asian Research Universities (AEARU) at National Tsing Hua University.

A courtesy visit to Dr. Tsai Mao-Feng

Students of UT won in the AEARU Student Athletic Competition.

The AEARU Student Athletic Competition (Quarter Marathon) was also held on the same day. 4 students from UT competed, and two of them wo the top two prizes.

Then they made a courtesy visit to Dr. Tsai Mao-Feng, Former Professor of Soochow University and gave an interview about the Japanese language education. He completed his master's degree at Tokyo University of Education and doctor's degree at Tsukuba University. He received the Order of the Rising Sun, Gold Rays with Neck Ribbon from Japanese Government in 2005, which was the first time after the diplomatic relations between the two countries were severed. The members of the alumni association, people from Soochow University, and Prof. Tsai-Kun Li, one of GIP-TRIAD members in NTU also attended. In the course of GIP-TRIAD, students will have chances to study native languages in each country. It was a great opportunity to know about learning foreign languages besides English and native language.

Visit to Interchange Association by a party of Senior High School at Sakado, University of Tsukuba

A party of Senior High School at Sakado visited Interchange Association

Visit to Prof. Miki Hattori in NTU

On April 29, Vice Principal Katsuyoshi Ishii, and Teacher Ryosuke Konno of Senior High School at Sakado visited the Taiwan Office of UT. They also visited Interchange Association, which functions as de facto Japanese embassy in Taiwan, and Prof. Miki Hattori in NTU, to have a discussion on the international exchanges by junior and senior high school students and the international cooperation between universities and high schools. It may not be related to GIP-TRIAD directly right now, but this will lead to student enrollment and to increasing supporters in the future.

3 Relevant Information about Studying Abroad

French Government Scholarship for Overseas Students

The French Government Scholarship System for Overseas Students is a system that is available for Japanese students and postdoctoral researchers who aspire to study (through master, doctoral, or double degree programs) or conduct research in France. Successful applicants are selected based on their application documents and a face-to-face interview. Applicants are asked to submit a research proposal and make necessary arrangements with the accepting institution in France prior to applying for the scholarship. Scholars can receive support for a period of 6 to 12 months.

Details are available in the following URL: (http://www.science-japon.org/bgf/)

"Monsanto Scholarship for the Cultivation of Professionals Aspiring for Sustainable Agriculture"

MONSANTO

(1) *Qualifications for Applying:*
1. Students who belong to Global Food Security Course of UT
2. Students who are excellent in personality and on academic performances, being motivated to study abroad
3. Students who are in financial need for studying abroad

(2) *Number of Students to be Awarded Support:* a few students

(3) *What's Supported?:* Partial support for overseas travel and accommodation expenses

(4) *How to Apply:* Applicants should prepare and submit the following necessary documents.
· Application period: From 23 May to 3 June, 2016
· Documents to be submitted
1. Application form (Predefined form)
2. Transcripts (Both Undergraduate and Graduate)
3. Research Proposal (Predefined form)
4. English Proficiency Exam Score: TOEFL, TOEIC or IELTS
5. Recommendation of your supervisor (Predefined form)

(5) *Selection:* Document screening and an interview will be conducted by a screening committee made up of representatives of both University of Tsukuba and Monsanto Japan Ltd.

(6) *Obligations of scholars:* Successful applicants who are granted support will be asked to present the results of their research and work abroad at Monsanto Japan Ltd. before graduation.

(7) *Inquiries*: Asst. Prof. Yoshihiro Okabe, University of Tsukuba
E-mail: okabe.yoshihiro.gp@u.tsukuba.ac.jp Tel: +81-29-853-6005

4 Editor's Note

The interchange between the University of Tsukuba and its partner institutions National Taiwan University and University of Bordeaux has become increasingly active, and as such, educational and research collaborations between the three institutions are similarly expected to increase. Correspondingly, the GIP-TRIAD Newsletter plans to continue to report on these developments and the activities of UT's students and on-site faculty. Of course, we aim to keep the GIP-TRIAD Newsletter interesting and relevant to our readers, so we truly appreciate any and all feedback regarding its content.
Inquires/Comments can be directed to:
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E-mail: okabe.yoshihiro.gp@u.tsukuba.ac.jp / Tel: +81-29-853-6005

GIP-TRIAD Newsletter

Sept. 2016

Vol. 4

CONTENTS

GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

This GIP-TRIAD Newsletter introduces the international activities of University of Tsukuba (UT) with its partner universities, National Taiwan University (NTU) and University of Bordeaux (UB). The reports in this volume 4 are mainly focused on Summer Programs which have been held as part of the international exchange events among three universities.

2 Activities

Students from College of Agro-Biological Resource Sciences Participated in Bordeaux Summer School 2016

From July 17 to 30, nine students from College of Agro-Biological Resource Sciences of UT participated in "The Bordeaux Summer School 2016." They studied the present situation and the leading-edge researches in agriculture, fisheries, and forestry in France through lectures and practical training by professors of UB. And they visited research institutes, agriculture related companies and Chateau to learn about the frontline of above research fields and wine production. They also enjoyed walking around the downtown and visiting Marché. All curricula were offered in English. On the final day, Assoc. Prof. Nakao Nomura, College of Agro-Biological Resource Sciences, participated in the program's debriefing session. This visit supposedly gave those students valuable experiences though its schedule was very busy.



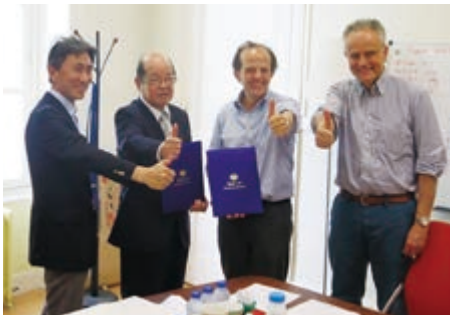

(Upper-left) Scene from the orientation
(Upper-right) Scene from reception by professors and students of UB
(Lower-left) Scene from practical training in Green Campus
(Lower-right) Debriefing session on the final day

Visit to University of Bordeaux and Université Bordeaux Montaigne by Prof. Teruo Higashi

On June 9 and 10, Prof. Teruo Higashi, the former Vice President of UT and Provost of Graduate School of Life and Environmental Sciences, and Prof. Osamu Ohneda, Director of Office of Global Initiatives of UT, visited UB and Université Bordeaux Montaigne (formerly University of Bordeaux 3).

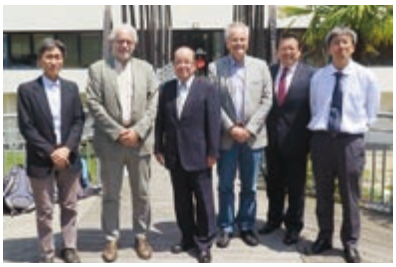
On June 9, they made a courtesy visit to Dr. Vincent Dousset, Vice President for International Affairs of UB, and handed in CiC Supplemental Agreement with a signature of Dr. Kyosuke Nagata, President of UT. It is expected that this will enhance CiC Initiative between two universities. Following this, they had a luncheon meeting with Dr. Achille Braquelaire, Vice President for Education, and had a discussion on Course Jukebox and GIP-TRIAD which is in preparation now.

On June 10, they visited Université Bordeaux Montaigne, and negotiated with Mr. Patricia Budo, Director of International Division, and Ms. Irina Nicoleta Simion, Chief of Division in charge of International Cooperation, for the conclusion of the university-level agreement. They also had a discussion on the promotion of academic exchanges at whole university. Both universities already have such exchanges in the fields



Handing in CiC Supplemental Agreement to UB
(from left) Prof. Osamu Ohneda, Prof. Teruo Higashi, Dr. Vincent Dousset, Prof. Laurent Servant (Adjunct Vice President for International Affairs)

of humanities and social sciences and regional research in Africa, which are leading fields of Université Bordeaux Montaigne. In the afternoon of that day, Prof. Higashi visited Green Campus of UB (INRA - Bordeaux National Institute for Agricultural Research), and had a talk with Prof. Dominique Rolin, Coordinator for GIP-TRIAD at UB. They also interviewed Mr. Masaki Asachi, a student of the Global Food Security Course for the double degree program (DDP) in Graduate School of Life and Environmental Sciences of UT. Prof. Higashi also visited Chateau Couhins, a winery owned by INRA, which produces UT brand wine.



Luncheon meeting with Vice President Achille Braquelaire (second from the left)

Interview with a DDP student from Graduate School of Life and Environmental Sciences of UT at Green Campus of UB

Visit to Chateau Couhins, owned by INRA

Awards Ceremony for "Monsanto Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" / Dialogue between Students and CEO of Monsanto Japan

The awards ceremony for "Monsanto Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" was held at headquarters of Monsanto Japan on August 5. Four students from Global Food Security Course for the double degree program (DDP) under Master´s Program in Agro-Bioresources Science and Technology were selected as recipients. In the ceremony, they had a dialogue with Mr. Yamane, President & CEO of Monsanto Japan, and told their enthusiasm for participating in DDP and their career paths after completing the program. Then, Mr. Yamane gave a special talk about its business, corporate philosophy, efforts to realize sustainable agriculture, public relations for giving a better understanding of genetically modified products to general consumers, etc., which were all new to students. They were given a very meaningful opportunity and asked many questions.

Scene of interview

Introduction of Monsant company

These DDP students will make on-site reports on their activities regularly. We expect them to report the benefits of studying and doing research abroad to younger fellows, and more students will have interests to join the DDP program.

A ceremonial photo at Monsanto Japan (from right) Mr. Seiichiro Yamane, President & CEO of Monsanto Japan, Mr. Shinobu Ihara, Mr. Masato Morii, Ms. Hitomi Takei, Mr. Hiroaki Shimada (Global Security Course of UT), Dr. Yoshihiro Okabe, Faculty of Life and Environmental Sciences

Mini-Symposium among National Taiwan University, Kyoto University, and University of Tsukuba

On June 18, a mini-symposium was held at NTU as a part of distance lectures among NTU, Kyoto University and UT, which is planned to be one of the subjects of GIP-TRIAD. Eight UT students attended to make oral and poster presentations on their research. Two among them received awards respectively for the oral and poster presentation.

All participants in the mini-symposium

Publicity poster for the mini-symposium

Scene from a poster presentation

Participants from UT

Information Session on Double Degree and Joint Degree Programs for Students of Agro-Biological Resource Sciences

Information session on double degree programs (DDP) and joint degree program (JDP) was held for the students of Agro-Biological Resource Sciences on July 6. Prof. Yuichi Yamaoka, Chair of Master´s Program in Agro-bioresources Science and Technology, explained the outlines of DDP, followed by the faculty members in charge of partner universities: Prof. Chiaki Matsukura in charge of UB, Asst. Prof. Junichi Peter Abe in charge of NTU, and Prof. DeMar Taylor in charge of Utah State University. During the session on DDP between NTU and UT, three NTU students and one UT student (starting from coming September) gave talks about their motivations in applying for DDP. Then Prof. Matsukura made an explanation about GIP-TRIAD, a joint degree program by UT, UB and NTU. Students asked many questions, showing their willingness and great interests in studying abroad. It is expected that more students with high ambitions will decide to participate in DDP and JDP by attending such information sessions.

(Upper-left) Prof. Yamaoka explaining DDP (Upper-middle) Scene from discussion (Upper-right) Prof. Matsukura introducing UB
(Lower-left) Dr. Abe introducing NTU (Lower-middle) NTU students of DDP (Lower-right) Prof. Taylor introducing Utah State University

Open Campus for Prospective Undergraduate Students

Open Campus for prospective undergraduate students was held at University of Tsukuba on August 7. Prof. Hiroshi Ezura gave a special lecture at College of Agro-Biological Resource Sciences, titled "Learning Tomato and Designing the Ideal Tomato" for the attendees. It is expected that the students who attended this event will get interested in the research and our university.

Scene from the special lecture

Students introducing their research at laboratory

Information Session for Studying in Japan

On July 13, Assoc. Prof. Ryosuke Ohniwa, Faculty of Medicine, took part in Information Session at the Interchange Association in Taipei. Programs taught in English seemed of great interest to the participants.

Summer Research Program 2016 at University of Tsukuba

Summer Research Program 2016 was held as a part of exchanging events between partner universities from July 25 to August 6. It was a two weeks' program, and students from the partner universities in Taiwan, France and USA experienced leading-edge researches in a laboratory of either Master's Program in Medical Sciences or Graduate School of Life and Environmental Sciences. On the final day, students made presentations to share their own experiences. At the orientation Assoc. Prof. Ryosuke Ohniwa introduced double degree programs (DDP) and Global Innovation Joint-Degree Program (GIP-TRIAD) to the attendees.

Scene from the program orientation

Dr. Ryosuke Ohniwa introducing GIP-TRIAD

Scene from the presentation training

Scene from the final presentation

Information Session for Undergraduate Students on Double Degree Programs, Joint Degree Program (GIP-TRIAD), and Course Jukebox

On August 2, an information session was held mainly for undergraduate students of Medical Sciences in order to introduce several master's programs which enable students to make a long-term study abroad. Ten highly motivated students attended, and among those programs, GIP-TRIAD was the most popular.

NTU Summer Program +N1

From August 14 to 26, ten UT students participated in NTU Summer Program +N1 Biotechnology. In this program, NTU provided credits which could be transferred to ones of UT. In the first week, students studied leading-edge researches at each laboratory. In the following week, they took lectures and practical training at Center for Biotechnology. They also participated in an excursion to Pingxi near Taipei during the program.

Participants of NTU Summer Program

UT students participating in the practical training

Textbook for Summer Program

3 Relevant Information about Studying Abroad

French Government Scholarship for Overseas Students 2017

The French Government Scholarship System for Overseas Students is a system that is available for Japanese students and postdoctoral researchers who aspire to study (through master, doctoral, or double degree programs) or conduct research in France. Successful applicants are selected based on their application documents and a face-to-face interview. Applicants are asked to submit a research proposal and make necessary arrangements with the accepting institution in France prior to applying for the scholarship. Scholars can receive support for a period of 6 to 12 months. Details are available in the following URL: http://www.science-japon.org/bgf/

Tobitate Ryugaku Japan

The "Tobitate Ryugaku Japan Program", which started in 2014, is a system to support and encourage Japanese students to study abroad. It is supported by both the Japanese government (MEXT) and private institutions. Please visit the website (http://www.tobitate.mext.go.jp/) to check the details for the application which is due October 24.

4 Editor's Note

The international exchange has become increasingly active among undergraduate students, staff and faculty, and we hope it will lead to increase interest in double/joint degree programs at either Masters or PhD level. The GIP-TRIAD Newsletter plans to continue to report the activities of on-site faculty, UT' students and offices. We aim to keep the GIP-TRIAD Newsletter interesting and relevant to our readers, so we truly appreciate any and all feedback regarding its content.

Inquires/Comments can be directed to:
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GIP-TRIAD Newsletter

Dec. 2016

Vol. 5

CONTENTS

GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

The 5th GIP-TRIAD Joint meeting was held at University of Tsukuba (UT) on September 20, 2016, and preparations for the opening of the Global Innovation Joint-Degree Program (GIP-TRIAD) are nearing completion. Also, Global Food Security Course, Master's Program in Agro-Bioresources Science and Technology (the double degree program) being implemented in cooperation with UT's partner universities National Taiwan University (NTU) and University of Bordeaux (UB), is now in full swing in its second year. It is becoming increasingly active not only in terms of cooperative research and foreign student exchange, but also as a means for mutual transfer of students through a variety of international exchange programs.
The 5th installment of the GIP-TRIAD newsletter focuses on Tsukuba Global Science Week (TGSW), an event held every year at UT, as well as a report on the GIP-TRIAD Joint meeting. The newsletter also introduces international exchange events and the activities of students at University of Tsukuba, National Taiwan University, and University of Bordeaux.

2 Activities

TGSW 2016 - International Bio-Entrepreneurship Training

Top: Opening speech by Prof. Akira Shibuya, Program Leader of HBP
Bottom: Prof. Dominique Rolin

Bio-entrepreneurship training, with its international perspective, is drawing attention in recent years for its collaboration with industry, government and academia, and its function as a key in producing new innovation. In this session, the Ph.D. Program in Human Biology (HBP) and Global Innovation Joint-Degree Program (GIP-TRIAD) worked in cooperation with the University of Tsukuba's network of overseas offices in many foreign countries all over the world and attempted to cultivate bio-entrepreneurship.
Following lectures about global bio-entrepreneurs from lecturers of various countries, students presented bio-venture company proposals as part of a presentation competition. Lecturers were invited from various countries, and Prof. Yoshihiro Takemoto (Tokyo Medical and Dental University), our guest from Japan, spoke on the history of entrepreneurship in Japan as well as what will be required of entrepreneurs in the future. Prof. Ning-Sing Shaw (National Taiwan University), our guest from Taiwan, gave a detailed introduction of entrepreneur training carried out at NTU. Prof. Elliot Botvinick (UCI: University of California, Irvine) introduced the current state of incubation, industry-academic cooperation, and entrepreneur training at UCI. Prof. Julio Cesar Ferreira (University of Sao Paulo) introduced the latest information on startups in Brazil, Sao Paulo, and University of Sao Paulo, as well as activities of the university. Prof. Dominique Rolin (University of Bordeaux), one of the professors in the GIP-TRIAD program, introduced the current conditions of entrepreneur training in the master's course at UB and also spoke of internship education in coordination with companies, a unique characteristic of European universities.
During the bio-venture presentation contest, students from various countries presented their own original ideas for venture companies. The professors who participated in the session (both Japanese and foreign staff) assigned scores to each presentation and evaluated the ideas presented by each of the students. The presentation by Ms. Rachel Gurlin (UCI) received the best score, and she won the Best Entrepreneur Award. Finally, two European agribusiness companies (MAÏSADOUR SEMENCES: Mr. Antoine Gaillard, Arysta Life Sciences: Mr. Hiroshi Furukawa) shared information and background about their cooperation with the University of Bordeaux. An active question and answer session was also held, offering a good opportunity to learn about current entrepreneur training and different initiatives undertaken in various countries.

A scene from the session

Prof. Yoshito Kumagai, Program Leader of GIP-TRIAD, presents the award

Group picture

TGSW2016 - GLidD (Growth & Learning identification powered by Instructional Design)

To prepare for the jointly managed Global Innovation Joint-Degree Program run by the three universities (University of Tsukuba, National Taiwan University, and University of Bordeaux), an international meeting has been held each year since 2014. In advance of the 5th Global Innovation Joint-Degree Program meeting held on September 20, 2016, a student education evaluation system workshop (this session) was held. In the GIP-TRIAD program, reaching a certain standard with the GLidD (Growth & Learning identification power by Instructional Design), which measures achievement level evaluations, is one of the requirements for completing the master's program. GLidD is a web-based evaluation tool to measure learning outcome, and although it has already been implemented for the Ph.D. Program in Human Biology and Master's Program in Medical Sciences, it will be introduced as part of a customized system for the GIP-TRIAD program with the goal of preserving the value of internationally-earned credits. In this session, the developer of GLidD gave an explanatory message, and participants were able to try out the actual GIP-TRIAD for themselves afterward. Through the exchange of opinions, understanding between developers and users was improved. In the first half, participants brought computers with them, and Mr. Takamitsu Asano from Learning Initiative Inc., the developer of GLidD, gave an explanation after which participants tried out a demonstration of the system. The GIP-TRIAD instructors in attendance, who had been debating the introduction of this system, now took on the role of students, entering data into and operating the system. In this way, they were able to clearly picture how the system would be used in the actual educational environment. After this experience, in the second half of the event, a lively discussion unfolded regarding issues such as procedures to be taken by the teaching staff performing evaluations, the best way to evaluate technical knowledge, the possibility of changes to data entered by students, and the operating environment during data entry. The staff in attendance from National Taiwan University and the University of Bordeaux were especially vocal at this time.
The first students in the GIP-TRIAD program are scheduled to be admitted in September 2017. This session provided a good opportunity for staff from the three universities to share issues.

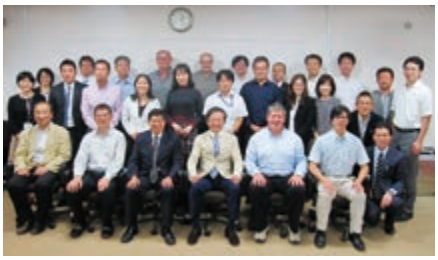
Top left: A scene from the session, Top right: System explanation by the GLidD developer
Bottom left, bottom right: Scenes from the exchange of opinions after trying out the system

5th International Conference for Global Innovation Joint-Degree Program

On September 20, 2016, a joint meeting for the Global Innovation Joint-Degree Program (GIP-TRIAD) was held at University of Tsukuba. Relevant staff from other universities participating in the program, National Taiwan University and the University of Bordeaux, attended this meeting. All attendees discussed issues related to preparing for the launch of the GIP-TRIAD joint degree program (JDP) to be run by the three universities. Professors Dominique Rolin, Thierry Noel, Michel Hernould and Associate Professor Kentaro Mori attended from UB, Professors Hsinyu Lee, Tsai-Kun Li, Ming-Ju Chen, and Chang-Chuan Chan, Associate Professors Han-Yi E. Chou and Tang-Long Shen, Ms. Chia-Yao Lin and Mr. Andrew Tsung attended from NTU, and Professors Yoshito Kumagai (Program Leader of GIP-TRIAD), Kazuya Morikawa, Masayuki Matsumoto, Masao Ichikawa, Yuichi Yamaoka, Hiroshi Ezura, Chiaki Matsukura, Associate Professor Ryosuke Ohniwa, Assistant Professors Junichi Peter Abe, Nobuhiko Akazawa, and Yoshihiro Okabe, Messrs.

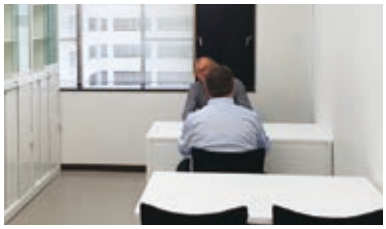
Top left: Prof. Yoshito Kumagai program reader of GIP-TRIAD who explains objectives of the meeting, Top right, Bottom left and right: Scenes from GIP-TRIAD Joint meeting

Toshiaki Sato, Satoru Ishihama, Akio Motomura, Akio Nakagami, Mmes. Yuko Matsukane, Nobuko Fukushima, and Reiko Hirose attended from UT.
In the morning before the meeting, the GIP-TRIAD staff toured the Tsukuba campus facilities (medical E building, where renovations have been completed) scheduled to be used by students in the program. Afterward, following a break for lunch, the meeting was held with relevant staff in attendance. Prof. Kumagai made opening remarks and discussed the purpose of this meeting. Attendees reported on a variety of items such as curriculum design, entrance examinations, letters of agreement, and company internships. Afterward, Prof. Rolin confirmed the topics for debate at this meeting, and the participants discussed the specific details of operating a degree program, anticipated problems, and the schedule moving forward. Continuing from the last joint meeting held in Bordeaux, this meeting also provided an active and meaningful discussion.



Group photo in GIP-TRIAD Joint meeting







Campus Facility Tour
Top left: Tour of Prof. Kumagai's laboratory, Top center: Tour of medical research facilities, Top right: Staff office
Bottom left: Sign for the Joint Laboratory for International Joint Programs
Bottom center, bottom right: Scenes from inside the joint research laboratory

TGSW 2016 - Bordeaux Cafe

On September 18, 2016 during TGSW 2016, the Bordeaux Cafe event themed on collaboration with industry and academia was held, sponsored by the University of Bordeaux. First, following an introduction of UB's industry cooperation initiatives by Prof. Vincent Dousset, Vice President, International Relations. Afterward, the event featured talk sessions conducted by Professors Dominique Rolin and Michel Hernould from UB and Research Director Antoine Gaillard from the French company MAÏSADOUR SEMENCES . MAÏSADOUR SEMENCES has been associated with the University of Bordeaux for many years, such as master's course (Master Biology AgroSciences) at UB and receiving students for internship and, etc.
It was interesting talk sessions about the ideal of University and collaboration with enterprises at France. Afterward, rare wine distilled at University of Bordeaux was served along with Bordeaux cheese and canneles, a traditional dessert from the region. It






Top center: Bordeaux Cafe poster, UB brand Bordeaux wine, Other photos: Scenes from the session

was a good opportunity to experience cultural exchange Bordeaux style. Among the participants in this session, some were students who had taken part in a summer school program at the University of Bordeaux as part of the international agricultural research program implemented by UT's College of Agro-Biological Resource Sciences, and the event generated increased interest in further exchange with the University of Bordeaux.

Taiwan Culture Week

Taiwan Culture Week was held in the city of Tsukuba from September 16 to 20. Sample tastings of NTU brand Oolong Tea as well as pineapple cakes, a popular Taiwanese dessert were served. Large numbers of people attended each day, and the event enabled them to get a better sense of Taiwanese culture through photos of Taiwan, writings and drawings by Taiwanese exchange students, all the while enjoying the aroma of Taiwan's fine tea. Exhibitions by universities such as NTU and National Cheng Kung University as well as by Taiwanese businesses were also on display. In addition to the exhibitions, the week featured a variety of events such as two citizen lectures, "Hidden Taiwan" and "Taiwanese Language," a talk show with Asa Nonami, a writer and Naoki Prize winner with a deep knowledge of Taiwan, puppet play performances by Hsin Hsing Ku Puppet Show Troupe, and choral performances of Taiwanese songs by the Kanto Region Taiwanese Doctors Group. The week was a great success, and seats were full for all of these events. More than 1,500 people visited the site during Taiwan Culture Week, and the event was a very good opportunity for them to learn about the charm of the country.


Scenes from Taiwan Culture Week


Left: Group photo from the opening, Right: Taiwan Culture Week poster

October Entrance: Exchange Student Orientation (Master's Program in Agro-bioresources Science and Technology)

On September 30, 2016, an orientation program was held for students entering the Graduate School of Life and Environmental Sciences and Master's Program in Agro-bioresources Science and Technology in October. Prof. Yuichi Yamaoka, Chair of the Master's Program, gave a welcoming speech, and a general explanation of majors in each of the programs was given afterward. Explanations of the joint international agriculture research expert training program, and Global Food Security Course curriculum, etc. were provided by Assoc. Prof. Tofael Ahamed and Prof. Sosaku Ichikawa. Continuing on, the new students and tutors all gave self-introductions. A welcome party for new students and current exchange students, along with the staff in related departments, was held that evening.



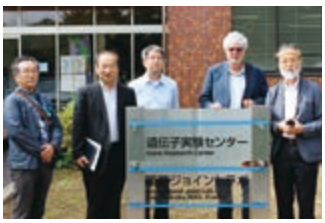



Top left: Professor Yamaoka, Chair of the Master's Program, gives a general overview of the majors
Top middle, right: Associate Professor Tofael Ahamed and Professor Sosaku Ichikawa explain the curriculum for each program
Bottom left: Scene from the self-introductions of new students and tutors
Bottom center: Group photo, Bottom right: Scene from the welcome party for new students

Dr. Robert Habib, head of the international department of French Institut National de la Recherche Agronomique (INRA), visits the University of Tsukuba's Gene Research Center

On September 30, 2016, Dr. Robert Habib, head of the international department of French Institut National de la Recherche Agronomique (INRA), visited UT along with Mr. Takashi Nagai, head of the international cooperation section of the National Agriculture Food and Research Organization, and made a courtesy visit to Vice President Yasuo Miake (Executive Director for Research). Afterward, they toured the Gene Research Center and had an informal chat with Professors Hiroshi Ezura (head of the Gene Research Center), Makoto Kawase (head of international exchange in the global commons organization), Kazuo Watanabe, Chiaki Matsukura, and Yoshihiro Okabe. Also, Professors Hiroshi Ezura and Chiaki Matsukura shared information on the background of events leading up to the international cooperation between the INRA Bordeaux Center and the Gene Research Center as well as an update on the recent activities of the international joint laboratory. Professor Kazuo Watanabe also introduced the evaluation facility for transgenic plants, and everyone shared their opinions on topics such as future cooperative projects.






Top left: Visiting Vice President Miake
(Vice President Yasuo Miake (second from the right), from the left: Professors Makoto Kawase, Chiaki Matsukura, Hiroshi Ezura (head of the Gene Research Center), Robert Habib, and Takashi Nagai)
Top right: Scene from the discussions
Bottom left: In front of the Gene Research Center
(From the left: Professors Makoto Kawase, Hiroshi Ezura (head of the Gene Research Center), Chiaki Matsukura, Robert Habib, Takashi Nagai)
Bottom right: Observing the Gene Research Center (Prof. Kazuo Watanabe and related staff explaining the facility)

This Gene Research Center was opened in 2008 as an international joint laboratory for working with the INRA Bordeaux Center, mainly on tomato research at that time, and the center has been actively engaged in research exchange and personnel exchange for students, researchers, and faculty since its opening. Also, The Global Food Security Course (Double degree program) in Graduate School of Life and Environmental Sciences was launched in April 2015, and the facility continues to work toward strengthening coordination of educational activities. In order to further solidify these international cooperation system, this university is currently working to prepare a three-party "International Associated Laboratory (LIA)" in collaboration with INRA and University of Bordeaux. As a result of these initiatives, invigoration of international research and educational activities is anticipated.

Preparations at the College of Bioresources and Agriculture, National Taiwan University for distance learning using materials from UT's Life and Environmental Sciences Research and Biological Resources courses

Prof. Yutaka Kitamura, head of the department, Prof. Hiroshi Ezura (school affairs supervisor), and Asst. Prof. Junichi Peter Abe (Taiwan exchange supervisor) visited the College of Bioresources and Agriculture, National Taiwan University from October 20 to 22. On the first day of their visit, the 3 toured a distance learning facility set up within NTU. The next day, they held a meeting with the four department heads from the main departments of NTU, the school affairs faculty, the head of the UT's Taiwan Office and Assoc. Prof. Ryosuke Ohniwa to discuss the details for preparing remote classes. As a result of this meeting, the decision was made to implement distance learning for one department within the school year (as intensive lessons), with remote classes for the remaining three departments scheduled for introduction the following year.

Group photo of the meeting with the four major departments at National Taiwan University

Sending and receiving students for Global Food Security Course-Double Degree Program (DDP) between UT and NTU

For NTU's DDP, three students from UT were sent in the first term and they have been studying at National Taiwan University since early September. Over the course of the next year, they will be carrying out research for writing a master's thesis under the guidance

A lunch event with the three DDP students from the University of Tsukuba (from the left: Assoc. Prof. Ohniwa, Ms. Watanabe, Asst. Prof. Abe, Prof. Kitamura, Mr. Inohara, Prof. Enomae, Mr. Morii)

of teaching staff at National Taiwan University, and will also take part in the master's program at the university. Also, from September 29 to October 3, the final qualifying test for National Taiwan University students looking to enroll in the DDP program was held, and three students from National Taiwan University will be admitted to this university in April 2017 as the second graduating class of the DDP program. For GIP-TRIAD, UT's Taiwan Office will provide full support for all of these activities.

Study abroad career support seminar planned by UT student in Bordeaux

Left: Mr. Nakanishi gives his lecture
Right: In front of La Maison du Japon after the first day of the seminar (Mr. Nakanishi from Cubridge K.K. is in the back row on the right and Mr. Masaki Asachi, the seminar organizer is to his left)

On November 5 and 6, 2016, a career support seminar for Japanese exchange students was held within the city of Bordeaux that was planned and executed by Masaki Asachi (currently in the second year of the major), a student in the Master's Program in Agro-bioresources Science and Technology Global Food Security Course (for the first part of the double degree program) who is currently studying abroad at the University of Bordeaux. As a speaker, Mr. Bunta Nakanishi, representative director of Cubridge K.K., was invited to speak, and on the 5th, he gave a lecture on the difficulties exchange students face during their job search, and a group discussion related to studying abroad was also conducted. On the 6th, the lounge of a hotel in the city was used for mock interviews. During the event, three other students from UT participated, and 14 other Japanese exchange students studying at the University of Bordeaux and Université Bordeaux-Montaigne also took part. The group discussion was full of energy. Also, the mock interviews featured such elements as the students taking turns playing the interviewer, and the seminar was a truly meaningful experience for all participants.
Prof. Chiaki Matsukura (Faculty of Life and Environmental Sciences), who is currently stationed at UT's GIP Bordeaux offices, also participated in the event and provided support for its operation. Also, after the seminar, he exchanged opinions regarding activities of job hunting and challenges for Japanese exchange students with Mr. Nakanishi and requested his cooperation in providing a general introduction of GIP-TRIAD and internship requests.
In addition, the event on the 5th was held in the seminar room of La Maison du Japon thanks to the kind offer of the owner, Mr. Takenori Shindo. We take this opportunity to express our gratitude.

Distance learning program among National Taiwan University, Kyoto University and University of Tsukuba

A scene from distance learning carried out at the University of Tsukuba

A joint distance learning program run by National Taiwan University, Kyoto University, and the University of Tsukuba on the theme of cancer biology was held in the fall of 2016, starting October 1.

Study Abroad Fair 2016 in Tsukuba, Taiwan, and Bordeaux

Study Abroad Fair (at UT) poster

With the start of the fall term, University of Tsukuba, National Taiwan University, and University of Bordeaux held an overseas study fair event that is becoming an annual tradition. At University of Tsukuba, Study Abroad Fair 2016 was held on October 19, and the Bordeaux Office and Taiwan Office each manned a booth. At the Bordeaux booth, staff answered students' questions about the double degree program with cooperation from students currently studying abroad in Bordeaux.
In Taiwan, the content mainly consisted of visits to high schools with bilingual courses and an introduction to English programs for students. There was also an explanatory meeting in Taiwan, and students from Taiwan currently studying abroad at the University of Tsukuba

Conversations between DPP students at the University of Bordeaux and the University of Tsukuba

UT students assisting operations

A scene from the study abroad explanatory meeting for Japan held in Taiwan

took part via Skype, explaining the appeal of the University of Tsukuba to the students in attendance.
From November 14 to 18, an international week event was also held at the University of Bordeaux. The University of Tsukuba Bordeaux Office set up booths on the Talence Campus (14th), Victoire Campus (15th), Carreire Campus (16th), and Pessac Campus (17th) in order to introduce the school and provide consultation for students considering studying abroad. During the event, Ms. Jelena Glisic was dispatched from the UT Office of Global Initiatives, and she handled booth placement and operation with cooperation from the Bordeaux Office. Also, four UT students currently studying abroad at the University of Bordeaux and students at the University of Bordeaux with study abroad experience cooperated at the booth and helped with visitors. During the event, approximately 70 University of Bordeaux and Université Bordeaux Montaigne students in total visited the booth. There were many questions about a wide variety of things such as the location of Tsukuba city and English programs that are implemented, and it was clear that there is a strong interest in studying in Japan. Parallel to these endeavors, Prof. Michel Hernould conducted a GIP-TRIAD explanatory meeting on the Carreire Campus on November 14, and about 20 students participated. Anticipated results of this initiative include increased exchange with the University of Bordeaux and National Taiwan University, improved awareness of GIP-TRIAD and double degree programs, and new interest in studying abroad and admission into the GIP-TRIAD program.

Top left: UT students assisting with operations at the Talence Campus
Top middle: Introducing GIP-TRIAD on a PC (Talence Campus)
Top right: UT students assisting with operations at the Carreire Campus
Bottom left: Distributing materials to students interested in studying abroad (Talence Campus)
Bottom middle: Scene from a social gathering on the Victoire Campus (In front, from the left: Ms. Veronique Debord-Lazaro, Director of the University of Bordeaux International Office; Ms. Hélène Jacquet, Vice Director of Research and International Exchange, University of Bordeaux; Ms. Jelena Glisic, CiC Supervisor, Office of Global Initiatives, UT)
Bottom right: A UT student answering questions from a University of Bordeaux student (Pessac Campus)

3 Editor's Note

Recently, the mutual exchange of students with an arrangement with UT either on a school or department level, and exchange not only in relation to collaborative research but students participating in DDP with partner universities is becoming a more active part of the study abroad program. In the future, we anticipate more and more students becoming interested in collaborative degree programs for master's and doctorate degrees. Going forward, relevant information for teaching staff stationed in local areas, students, and overseas offices will be developed and enriched further. We hope to make this newsletter beneficial to all of you, so if you have any comments or requests, please do not hesitate to contact us at the information below.

Inquires/Comments can be directed to:
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GIP-TRIAD Newsletter

Mar. 2017
Vol. 1

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GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

The main portion of our exchange activities with partner universities until now has consisted of the mutual dispatch of exchange students, but in recent years, exchanges between faculty is becoming increasingly active. We hope to see continued strengthening of our connections with our partner universities in the future. In this, the first issue of 2017, we report on the visit to the University of Tsukuba (UT) by Prof. Dominique Rolin, who leads the GIP-TRIAD program at the University of Bordeaux, on student exchanges with our partner universities, National Taiwan University (NTU) and University of Bordeaux (UB), on the double degree program (DDP), and other activities, such as events within UT.

2 Activities

Visit to University of Bordeaux by UT President Nagata

Over two days from Jan. 31 to Feb. 1, 2017, Prof. Kyosuke Nagata, President of University of Tsukuba (UT), Prof. Caroline Fern Benton, Vice-President and Executive Director for Global Affairs, Prof. Osamu Ohneda, Director of the Office of Global Initiatives and Ms. Mizuho Fukushige from the Office of Global Initiatives visited Bordeaux. On Jan. 31, they visited the University of Bordeaux (UB), and held discussions with Prof. Manuel Tunon de Lara, UB President, Prof. Vincent Dousset, Vice President for International Affairs, Dr. Hélène Jacquet, Deputy Executive Director for Research, International Innovation and Partnerships, and Ms. Glenda Gilmore, UB International Exchange Manager, relating to plans for Campus in Campus (CiC) activities at both universities, as well as on enhancing office functions, etc. Then, they all went to the Grave district to view Chateau Couhins owned by French National Institute for Agricultural Research (INRA). Chateau Couhins is one of the 1855 officially classified wineries in the Grave district, also known for producing the University of Tsukuba's brand wine. At Chateau Couhins, they held discussions with Prof. Dominique Rolin, Prof. Michel Hernould and Assoc. Prof. Kentaro Mori, coordinators at UB for GIP-TRIAD and for the Graduate School of Life and Environmental Sciences.

On Feb. 1, they met with Prof. Patricia Budo, Director of the International Division at Université Bordeaux Montaigne, and held discussions on measures for the future expansion of exchanges. Then, they attended a student workshop held at the UB Victoire campus on "Transdisciplinary Studies in the Making: Tsukuba-Bordeaux Student Workshop on Humanities and Social Sciences," as well as meeting with UT exchange students and UT students visiting the University of Bordeaux to attend this symposium. We hope that this workshop can help accelerate and lead to further enhancements in the quality and quantity of exchanges with Université Bordeaux Montaigne.




Top left: President and Vice President discussions at the University of Bordeaux.
From left: Ms. Glenda Gilmore (UB International Exchange Manager), Prof. Caroline Fern Benton (Vice President and Executive Director for Global Affairs), Prof. Manuel Tunon de Lara (UB President), Prof. Kyosuke Nagata (UT President), Dr. Hélène Jacquet (Deputy Executive Director for Research, International Innovation and Partnerships), Prof. Vincent Dousset, (UB Vice President for International Affairs), Ms. Mizuho Fukushige (Office of Global Initiatives), and Prof. Osamu Ohneda (Director of the Office of Global Initiatives at UT).
Top center: Discussion between both Presidents at the University of Bordeaux.
Top right: Viewing Chateau Couhins.
Bottom left: Meeting with UT exchange students and students involved in the student workshop at the Bordeaux Liaison Office.
Bottom center: Meeting at the Bordeaux Liaison Office with Prof. Patricia Budo, Director of the International Division at Université Bordeaux Montaigne (center).
Bottom right: Viewing the University of Bordeaux Victoire campus library.

Holding the student workshop, "Transdisciplinary Studies in the Making: Tsukuba-Bordeaux Student Workshop on Humanities and Social Sciences"

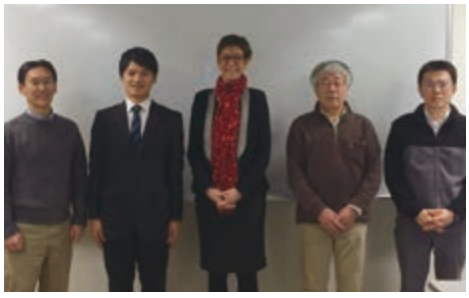
On Feb. 1, 2017, at the University of Bordeaux Victoire campus, the student workshop, "Transdisciplinary Studies in the Making: Tsukuba-Bordeaux Student Workshop on Humanities and Social Sciences," (jointly-held by University of Tsukuba Graduate School of Humanities and Social Sciences, Université Bordeaux Montaigne, University of Bordeaux, and Bordeaux Institute of Political Studies). At the beginning of the workshop, UT President Kyosuke Nagata offered some comments, which was following by a keynote lecture by Prof. Patricia Budo, the Director of the international Division at the Université Bordeaux Montaigne. In addition, five graduate students from the University of Tsukuba Graduate School of Humanities and Social Sciences who received support from the CiC support program, "Educational research exchange in the humanities and social sciences with the University of Bordeaux," participated and made a presentation at this symposium. Academic and people exchanges between UT and UB until now have been centered on the fields of Life and Environmental Sciences, Medicine and Healthcare, and Sports Science, etc., but we hope to expand exchanges further into the humanities and social sciences in the future, including with the Université Bordeaux Montaigne.




Top left: President Kyosuke Nagata makes comments at the opening of the student workshop.
Top right: Keynote speech by Prof. Patricia Budo from the Université Bordeaux Montaigne.
Bottom left: Research report by a UT student.
Bottom right: Student participants from UT after the symposium.

Visit to UT by UB Prof. Laure Béven and the 1st GFS-DDP graduate is produced

From Jan. 27 to Feb. 1, 2017, UB Prof. Laure Béven visited UT to review the Master's theses of the 1st graduating GFS-DDP student and to hold a research seminar. Prof. Laure Béven provided guidance as supervising professor to the 1st GFS-DDP student in Bordeaux. On Jan. 27, the review and oral examination of Mr. Masaki Asachi's Master's thesis was held and Prof. Laure Béven attended as a member of the review panel. Then, on Jan. 30, Prof. Laure Béven presented a research seminar entitled, "Mollicutes: Small, simple but efficient micro-organisms-Membrane structure and functions," which was attended by many students and faculty. That evening, a social gathering was held to express our gratitude for Prof. Laure Béven's contribution to UT's educational and research program, attended by UT faculty related to DDP and DDP students from UB. Mr. Masaki Asachi passed the reviews of both the University of Bordeaux and the University of Tsukuba, and will complete the program and obtain a Master's degree from both universities at the end of March. We hope that further exchanges with the University of Bordeaux will be stimulated by this program in the future.

Top left: Final review of 1st generation GFS-DDP graduate, Mr. Masaki Asachi's Master's thesis.
Top right: Group photo after the Master's thesis review. From left: Prof. Sosaku Ichikawa, Mr. Masaki Asachi, Prof. Laure Béven, Prof. Seigo Sato, Assist. Prof. Kazuyoshi Ogawa.
Bottom left: Group photo after the research seminar.
Bottom right: Group photo after the social gathering.

GFS-DDP Monsanto Scholarship Student Study Abroad Report

On Feb. 23, 2017, the 1st scholarship student of the "Monsanto Scholarship System for the Cultivation of Professionals Aspiring for Sustainable Agriculture" made his study abroad report at the head office of Monsanto Japan Limited. The study aboard report presentation was attended by Mr. Seiichiro Yamane, Representative Director, Ms. Yukie Sasaki, Director of Corporate Communications, and Mr. Yuu Sakakibara from Corporate Communications, and by Mr. Masaki Asachi, 1st Global Food Security Course Double Degree Program (GFS-DDP) student, majoring in Agro-Bioresources Science and Technology at the Graduate School of Life and Environmental Sciences, and Assist. Prof. Yoshihiro Okabe (Life and Environmental Sciences)). Mr. Asachi presented a report describing everyday life, culture, and his new discoveries in Bordeaux, his research results, experiences gained from this program and his vision for the future.

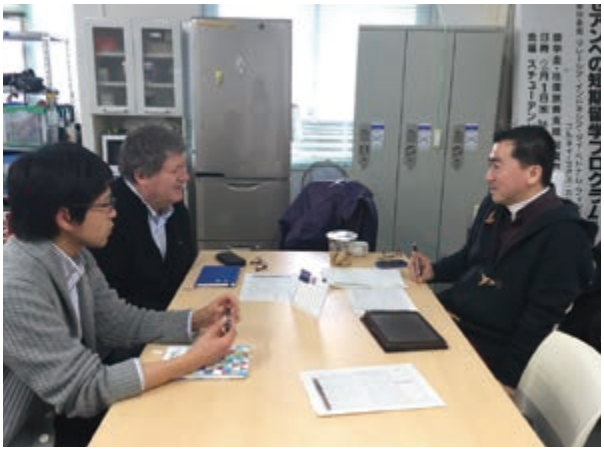
The study abroad report presentation was conducted in a relaxed atmosphere and people from Monsanto seemed very satisfied to see the growth and development evident in Mr. Asachi upon his return compared to the interview one year ago. At the end, Mr. Yamane offered words of encouragement and anticipation of Mr. Asachi's further growth and development. We hope that to see similar growth, in the footsteps of Mr. Asachi, in the 2nd group of GFS-DDP students who are currently engaged in their research in Bordeaux and Taiwan.

We would like to take this opportunity to express our gratitude to Mr. Seiichiro Yamane, Representative Director, and Monsanto Japan Limited for all their support for GFS-DDP.

Top: Making the study abroad report.
Bottom: Commemorative photo after the report (From left: Mr. Seiichiro Yamane, Representative Director, Monsanto Japan Limited., Mr. Masaki Asachi, 1st GFS-DDP student, Assist. Prof. Yoshihiro Okabe (Life and Environmental Sciences)).

Visit to UT by UB Prof. Dominique Rolin: Meeting with faculty responsible for UB-UT student exchanges

On Mar. 1, 2017, UB Prof. Dominque Rolin held a meeting on the summary for conducting the 2017 Bordeaux Summer School with UT Assoc. Prof. Nakao Nomura, who is responsible for coordinating exchanges with UB conducted as part of International Agricultural Training III at the UT College of Agro-Bioresources Science and Technology. The Bordeaux Summer School is a short-term study abroad program which is very popular among Agro-Bioresources Science and Technology students, and some students who have participated in this program have later applied to study abroad at the University of Bordeaux. A call for applicants will be held at the orientation in mid-April, and around 10 Summer School participants will be selected via Skype interviews. The 2017 Summer School will be held from Jul. 15 to 30, 2017. Please refer to the web-site(http://bss-frenchagri.u-bordeaux.fr/en) for more information.



Left: Scene from the meetings (From left: Assist. Prof. Yoshihiro Okabe, Prof. Dominique Rolin and Assoc. Prof. Nakao Nomura).
Right: Information on the 2017 Bordeaux Summer School.

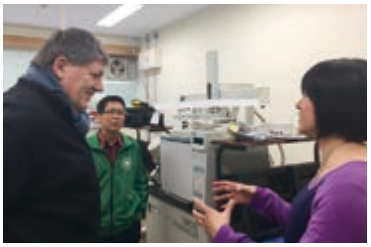
Visit to UT by UB Prof. Dominique Rolin: Intensive Course

For one week from Feb. 27 to Mar. 3, 2017, UB Prof. Dominique Rolin presented an intensive course on Metabolomics to UT graduate students. The intensive 5-day course was entitled, "Metabolomics: an emerging but powerful tool to study biology," and the contents was both wide-ranging and substantial, from the history of biology and biotechnology, through to the basics and application of metabolomics. In addition to UT Master's and Doctoral program graduate students, the course was also audited by two UB DDP Master's students, a College of Agro-Bioresources Science and Technology student considering studying abroad at the University of Bordeaux, and two students who want to participate in GIP-TRIAD. In addition, on Mar. 2, during Prof. Rolin's stay at UT, a meeting to exchange opinions on possibilities for educational and research linkage was held with Prof. Miyako Kusano, who is conducting metabolomics research at UT.

Prof. Dominique Rolin's presentation was humorous, the science was pertinent, and the students who attended his course listened with rapt attention. We hope that by continuing to have faculty from our partner universities actively conduct intensive courses in the future, we can further stimulate exchanges with our partner universities and develop even more robust relationships.





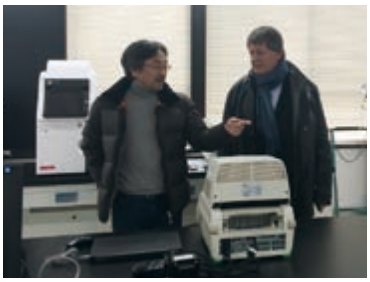



Top right: Overview of the intensive course. Top right: Scene from the course.
Middle left & right: Prof. Dominique Rolin lecturing.
Bottom left: Scenes from the exchange of opinions on metabolomics (From left: Prof. Dominique Rolin, Assist. Prof. Yonathan Asikin and Prof. Miyako Kusano)
Bottom right: Group photo of participants in the intensive course.

Visit to UT by UB Prof. Dominique Rolin: Viewing the Kumagai Lab and GIP-TRIAD-related facilities

After lunch on Mar. 1 2017, Prof. Dominique Rolin viewed the laboratory of Prof. Yoshito Kumagai, GIP-TRIAD program coordinator, and other GIP-related facilities. During this visit, while viewing the related facilities, they exchanged opinions on student academic supervision and the student support regime for GIP-TRIAD students during their stay. It was a valuable opportunity for them as the respective program coordinators at UT and UB to share opinions on their difficulties in pioneering new programs and on the differences in the systems in both countries in establishing programs. In addition, at the end of the opinion exchange, triggered by Prof. Dominique Rolin conducting his intensive course during his stay at UT, Prof. Kumagai also plans to visit Bordeaux during 2017 and conduct a special lecture. We hope that this accumulation of exchanges will help to generate more GIP-TRIAD applicants in the future.






Top left: Meal in Tsukuba City (From left: Ms. Reiko Hirose, Kumagai Lab staff member, Prof. Yoshito Kumagai, Prof. Dominique Rolin and Assist. Prof. Yoshihiro Okabe)
Top right: Viewing the Kumagai Lab.
Bottom left & Bottom right: Shared laboratory facilities and the common space within the lab.

Visit to UT by UB Prof. Dominique Rolin: Exchanging opinions on student exchanges

After his final lecture on Mar. 3, 2017, Prof. Dominque Rolin attended lunch with Assist. Prof. Junichi P. Abe and exchanged opinions on exchanging students, entrance requirements for GIP-TRIAD and PR for the orientation for new students to the Bordeaux Summer School. After lunch, Prof. Rolin exchanged opinions with Assoc. Prof. Kyoko Tanase on the possibility of studying abroad for students desiring to study short-term at the University of Bordeaux. It was an intense week for Prof. Rolin, but it was a week of very fruitful exchanges.

Left: Exchanging opinions over lunch.
(From left: Assist. Prof. Junichi P. Abe and Prof. Dominique Rolin)
Right: Exchanging opinions on students desiring to study overseas in Bordeaux with their supervising professor.
(From left: Prof. Dominique Rolin and Assoc. Prof. Kyoko Tanase)

NTU-UT International Study Group

From Dec. 2 to 4, 2016, at the National Taiwan University (NTU), the NTU-UT International Study Project was launched. 20 students from UT joined with 20 students from NTU to make teams of four people, and discuss various topics in English. At the end, each group made a presentation in English. It was an event that enabled them to take a first step toward studying abroad and deepening their understanding of culture overseas. Next time, in July, we will welcome students from NTU at UT. This is being conducted as part of the CiC project.

Left: Scene from the group discussions
Right: Scene from the group presentation

Signing of Doctoral DDP Partnership Agreement between NTU College of Bioresources and Agriculture and UT Graduate School of Life and Environmental Sciences and Holding of a Kick-off Mini-Symposium

UT Graduate School of Life and Environmental Sciences has been conducting a Master's double degree program (DDP) with NTU College of Bio-Resources and Agriculture since the fall semester of 2015, but as a result of further discussions, we have been able to conclude an agreement for a Doctoral DDP partnership. On Jan. 9, 2017, the signing of the agreement was conducted at NTU and attended by Prof. Numata, Director of the Graduate School of Life and Environmental Sciences, Prof. Osawa, Director of the Graduate School of Life and Environmental Sciences, Prof. Ezura, Director of the Gene Research Center, six faculty members from the Graduate School of Life and Environmental Sciences, and Assoc. Prof. Ohniwa, Director of the UT Taiwan Office. After the signing, a kick-off mini-symposium was held between NTU faculty and UT Graduate School of Life and Environmental Sciences faculty toward the promotion of future joint research. The launch of the Doctoral DDP is scheduled for the fall semester of 2017.

Group photo after the signing of the Partnership Agreement. (From left: Prof. Ryo Osawa, Assoc. Prof. Ryosuke Ohniwa, Assist. Prof. Yosuke Yoshioka, Prof. Hiroshi Ezura, Assist. Prof. Maki Asano, Assist. Prof. Atsushi Asano, Assist. Prof. Yasuhiro Ishiga, Assoc. Prof. Tohru Ariizumi, Prof. Osamu Numata, Director MJ Chen, Assist. Prof. Junichi P. Abe, Chairman YS Chang, Dean YT Shyu, Prof. YY Do, Chairman HM Lai, Prof. ZS Chen, Assoc. Dean SM Chen, Chairman WC Shen, Dr. SI Lin, Dr. FC Chang, Dr. NC Lin, Assoc. Dean DY Lee, Dr. CL Chung)

Visit to NTU by UT Vice President for Education, Prof. Makoto Ito

On Jan. 20, 2017, UT Vice President for Education, Prof. Ito and Deputy Director for Global Affairs, Prof. Sato visited NTU. They held meetings with NTU Executive Vice President Tei-Wei Kuo (Academics & Research), and exchanged opinions on future joint activities between UT & NTU, including GIP. Many GIP members attended from the NTU side, including Prof. Chang-Chuan Chan (College of Public Health), Prof. Ming-Ju Chen (College of BioResources and Agriculture), Assoc. Prof. Han-Yi E. Chou (College of Medicine & Dentistry) and Mr. Andrew Tsung (International Office).

Group photo:
From left: Ms. Chia-Yao Lin (UT Taiwan Office staff), Assoc. Prof. Ryosuke Ohniwa, Deputy Director Sato (Global Affairs), Prof. Makoto Ito, Vice President (Education), Executive Vice President Tei-Wei Kuo (Academics & Research), Prof. Chang-Chuan Chan (College of Public Health), Prof. Ming-Ju Chen (College of BioResources and Agriculture), Assoc. Prof. Han-Yi E. Chou (College of Medicine & Dentistry), and Mr. Andrew Tsung (International Office).

UT-NTU Alumni Association Meeting and Social Gathering & Explanation of UT Entrance Requirements

On Jan. 21, 2017, an UT-NTU alumni association meeting & social gathering were held, and explanation of UT Entrance Requirements was given to alumni. Under the guidance of Director Hayashi, an inaugural issue of the Taiwan alumni newsletter had been prepared and alumni members reported on alumni activities. Vice President Makoto Ito (Education), Deputy Director Sato (Global Affairs), Assoc. Prof. Ohniwa, Ms. Lin and local staff members from the Taiwan Office participated on the UT side. The alumni newsletter will be published on the UT Taiwan Office website in the near future. It is written in both traditional Chinese characters and Japanese. Many graduates and their children attended the explanation of University of Tsukuba entrance requirements. We hope that many future University of Tsukuba students will emerge from among them.

Left: Alumni association meeting organizers.
Center: Alumni association meeting members
Right: Assoc. Prof. Ohniwa explains the history of the University of Tsukuba.

Meeting with UT students studying at NTU

On Feb. 6, 2017, we held an exchange meeting with UT students staying in Taiwan as part of the double degree program (GFS-DDP). It was a good opportunity to hear about their experiences and struggles in studying abroad. We look forward to seeing their continued growth and development.

Socializing with students

3 Relevant Information about Studying Abroad

"Innovation Internship 100"

Below is the latest information about "Innovation Internship 100" program.
See the following URL:
(http: //www.ambafrance-jp.org/article9672)

1.Target Candidates

Students and graduates aged 30 or under with Japanese nationality. Candidates are to be selected by participating corporations based on their abilities and statement of purpose.

2.Participating Corporations

Currently, participating corporations include:
THALES, MICHELIN, Air Liquide R&D, Sanofi, AXA Group, ORANGE S.A., VALEO LIGHTING SYSTEM, Valeo Systèmes Thermiques, PSA Peugeot Citroën, Fives Intralogistics SA

3.Outline of "Innovation Internship 100"

Selected interns engage in a project related to one aspect of innovation (including scientific technique, industry, financing, cooking, fine arts, marketing, and management, among others). Interns will receive direct supervision and coaching, and be given responsibilities fitting to their abilities and in accordance with the length of the internship.
Other details such as language use, remuneration, working location, accommodation, etc. are different depending on the accepting corporation.

4.Visa

Selected interns can participate in training/professional activities in France with a Working Holiday Visa, which can be obtained free of charge. No other visa-related administrative procedures are required. The only procedures required with regard to the accepting corporation is to sign an agreement defining the details of the internship with the student or his/her university.
It is possible for selected interns who have already previously been issued a Working Holiday Visa and students with a three-way written agreement authorized by DIRECCTE (Regional Department of Enterprise, Competition, Consumer Affairs, Labour and Employment) to participate under a different visa category.
Students attending a Japanese university at the time of application may need an internship agreement, as above, signed by their university and the company.

5. Remuneration

Remuneration and internship conditions differ depending on the corporation.

*Note: It is possible to include an internship in France as a part of the Study Abroad Plan in the application for the "Tobitate! (Leap for Tomorrow) Study Abroad Initiative," managed by the Japan Student Services Organization (JASSO) under the support of private companies. However, successful or failed Innovation Internship 100 applications do not necessarily qualify/disqualify applicants this program. Furthermore, if an intern is currently enrolled in a Japanese university and the internship activities are considered part of his/her educational training, the remuneration for the internship may not exceed the monthly allowance determined by the program in certain situations. Applicants should refer to the available relevant details of "Tobitate! Study Abroad Initiative when applying.

"Monsanto Scholarship system for the Cultivation of Professionals Aspiring for Sustainable Agriculture"

(1) Qualifications for Applying:

1. Graduate students who belong to the UT Global Food Security Course (Double Degree Program) of Graduate School of Life and Environmental Sciences (Master's students in the Agro-Bioresources Science and Technology program & Doctoral students)
2. Students with excellent personalities and academic performance, who are motivated to study abroad
3. Students in need of financial assistance to study abroad
   However, students unable to secure the minimum funds required for study abroad despite having made applications for Habatake! Tsukuba University Student, JASSO, corporate or foundation scholarships will be prioritized.

(2) Number of Students to be Awarded Support: 2 to 3 students

(3) Support provided:

a) Amount of support
- Overseas travel expenses (cheapest-available economy-class return flight at the time of departure)
- Partial support for accommodation expenses (provided as travel expenses)

(4) How to Apply:

a) Application period – scheduled for mid May
b) Application method - Applicants should prepare and submit the following necessary documents during the application period each year.
1. Application form (Predefined form)
2. Transcripts (Both Undergraduate and Graduate)
3. Research Proposal (Predefined form)
4. English Proficiency Exam Score: TOEFL, TOEIC, JLPT or IELTS
5. Recommendation of your supervisor (Predefined form)

c) Selection: Document screening and an interview will be conducted by a screening committee made up of representatives of both University of Tsukuba and Monsanto Japan Ltd.

(5) Obligations of scholars: Successful applicants who are granted support will be asked to present the results of their research and work abroad at Monsanto Japan Ltd. before graduation.

(6) Contact:

Yoshihiro Okabe, Assist. Prof., Faculty of Life and Environmental Sciences, University of Tsukuba
E-mail: okabe.yoshihiro.gp@u.tsukuba.ac.jp Tel: 029-853-6005
201 New Building, Gene Research Center, Faculty of Life and Environmental Sciences,
University of Tsukuba

4 Editor's Note

Student exchanges between students at college and student group level, interactions through joint research, and mutual exchanges of students participating in DDP with our partner universities have become increasingly active. We hope to see even more students showing an interest in the joint Master's and Doctoral programs available in the future. We intend to continue to strive to further enhance information on overseas offices, students and UT faculty posted to our partner universities. Our aim is to make this newsletter as interesting and relevant for everyone as possible, so please feel free to contact us with any opinions and requests relating to its content.

Inquires / Comments can be directed to:
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GIP-TRIAD Newsletter

Jul. 2017
Vol. 2

CONTENTS

GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

In the second issue of 2017, we report on visits by GIP-TRIAD faculty to Taiwan and Bordeaux for the purpose of holding discussions for GIP-TRIAD and to view related facilities. In addition, we also provide an update on other activities such recent student exchanges between National Taiwan University (NTU), University of Bordeaux (UB), and University of Tsukuba (UT), information on the double degree program (DDP), and introduce events within UT.

2 Activities

··· Visit to INRA Bordeaux Center and University of Bordeaux (UB) by Prof. Hiroshi Ezura and Assist. Prof. Yoshihiro Okabe

From Mar. 27 to 29, 2017, Prof. Hiroshi Ezura from Life and Environmental Sciences (Director of Tsukuba-Plant Innovation Research Center (T-PIRC), former-Director of the Graduate School of Life and Environmental Sciences) and Assist. Prof. Yoshihiro Okabe visited the University of Bordeaux (UB) and the French National Institute for Agricultural Research (INRA) Bordeaux Center.

First, on Mar. 27, a seminar was held at the INRA Bordeaux Center to introduce the Tsukuba-Plant Innovation Research Center (T-PIRC) which was launched on Apr. 1. In addition, discussions were held with INRA Bordeaux Center's Dr. Christophe Rothan and Dr. Pierre Baldet and UB's Assoc. Prof. Kentaro Mori regarding the launch of the International Associate Laboratory (LIA) which is a new framework that extends the Japan-France Joint Labo (TIL) framework established between UT and INRA in 2008 to UB. At the INRA seminar, Prof. Chiaki Matsukura, UT faculty posted to the UT Bordeaux Office, provided an introduction on the Global Innovation Joint Degree Program (GIP-TRIAD) which is currently under construction and the Double degree program - Global Food Security Course (DDP-GFS) which began in Life and Environmental Sciences from the 2015 academic year. Then on Mar. 29, Prof. Antoine de Daruvar, Director of UB's Doctoral School of Health and Life Sciences and Prof. Dominique Rolin, Prof. Michel Hernould, and Assoc. Prof. Kentaro Mori held discussions on the establishment of a DDP-GFS doctoral program (Prof. Hiroshi Ezura, Prof. Chiaki Matsukura and Assist. Prof. Yoshihiro Okabe participated on the UT side).

In parallel with the above schedule, the party held meetings with Ms. Hitomi Takei (2nd-year student majoring in Agro-Bioresources Science and Technology) who is currently staying at the INRA Bordeaux Center as part of her DDP-GFS, and Mr. Guillaume Decros who will stay at UT as a student from Oct. in the same program, which is running for its second year, as well as exchanging opinions over a broad range of issues related to future linkages with UB's Prof. Dominique Rolin and INRA Bordeaux Center UMR1332 Sub-Director, Dr. Christian Chevalier. In addition, as well as visiting the UT Bordeaux office and student dormitory, the party met with Mr. Koki Seo, from UT Agro-Bioresources Science and Technology, who is currently an exchange student at UB.

Through the above-mentioned activities, we hope that linkages will be deepened in terms of both education and research among UT Graduate School of Life and Environmental Sciences, UB, and INRA.



Left: Prof. Hiroshi Ezura provides an introduction to T-PIRC, at the INRA Bordeaux Center D
Center: Meeting with UT students staying in Bordeaux on the double degree program.
Right: Visiting the dormitory at UB. Meeting with a UT Agro-Bioresources Science and Technology student who is in Bordeaux on an exchange program. (From left: Mr. Koki Seo, Prof. Hiroshi Ezura, Assist. Prof. Yoshihiro Okabe).

Briefing on the DDP majoring in Agro-Bioresources Science and Technology at the UT Graduate School of Life and Environmental Sciences

On Apr. 10, 2017, we held a briefing on the DDP majoring in Agro-Bioresources Science and Technology at the UT Graduate School of Life and Environmental Sciences. First, Prof. Yuichi Yamaoka, Director of the department provided an overview of the DDP program, and then faculty in charge of each sub-course (affiliated school) explained about the DDP at UB (Prof. Miyako Kusano), NTU (Prof. Yutaka Kitamura and Assist. Prof. Junichi P. Abe) and Utah State University (Prof. Taylor DeMar). In addition, Mr. Masaki Asachi, who was the first DDP student to study abroad at UB and who obtained his DDP (Master's degree), talked about his experiences studying overseas and his job-hunting. Participating students actively asked questions and there was a sense of their strong ambition and interest in studying abroad. We hope that lots of students with high aspirations will participate in the DDP. See the following URL for Mr. Masaki Asachi's study abroad report: (http://www.life.tsukuba.ac.jp/activity/Global_Food_Security_Course_report_by_Mr_Asaji_in_University_of_Borde aux_final_20170407.pdf).

Top left: Prof. Yuichi Yamaoka, Director of the department provides an overview of the DDP program.
Top right: Mr. Masaki Asachi talks of his study abroad experiences.
Bottom left: Prof. Yutaka Kitamura provides an overview of DDP at NTU.
Bottom right: Briefing participants.

Visit to Tsukuba-Plant Innovation Research Center (T-PIRC) by Ms. Camile Cholet

On May 24, 2017, Ms. Camile Cholet, a member of UB faculty, and Ms. Yuko Yuhara from Global Commons visited Tsukuba-Plant Innovation Research Center (T-PIRC). Prof. Ezura, the Center Director, provided an overview on the research center after which they viewed the research center facilities. As well as visiting the Center, they met with two DDP-GFS students currently studying at UT, Mr. Linejy Tavars and Mr. Mathieu Bruggeman, and one research student, Mr. Johan Hunziker, and exchanged opinions on living in France and Japan, lesson formats, and student support systems.

Left: Meeting with UB students.
Center & right: Viewing the T-PIRK facilities.

Visit to UB by Prof. Yoshito Kumagai (Director of the GIP-TRIAD Preparation Office)

From Jun. 7 to 9, 2017, Prof. Yoshito Kumagai (Director of the GIP-TRIAD Preparation Office), Prof. Masao Ichikawa, Assoc. Prof. Ryosuke Ohniwa, Assist. Prof. Yoshihiro Okabe, Assist. Prof. Yumi Abiko, and three Education Promotion staff members (Mr. Akio Nakagami, Mr. Kota Kurihara, and Mr. Yuta Koizumi) visited the University of Bordeaux (UB). This visit was made for the purpose of advance coordination for joint operation of GIP-TRIAD which will be launched in Sept. and to inspect education and research and student support facilities for implementing the program at UB. In Bordeaux, the party was joined by Prof. Chiaki Matsukura, the local coordinator of this program in Bordeaux, and Prof. Joji Kijima, the Director of the UT Bordeaux Office. On the morning of Jun. 7, the party exchanged opinions with Prof. Dominique Rolin and his faculty colleagues responsible for GIP-TRIAD and with Mr. Frédéric Bertrand, International Partnerships Officer (Africa-Asia) and his administrative colleagues, on the framework for a joint degree program in France and on French visa application procedures, etc. In the afternoon, the party visited Planète Végétal, which is a candidate for field practice at UB, and Château Couhins. On the morning of Jun. 8, the party continued opinion exchanges of the day before with UB related faculty on student registration and determination of completion of studies at UB. In the afternoon, as well as attending a lunch

meeting hosted by Prof. Vincent Dousset, UB Vice President for International Affairs, the party inspected facilities such as the CROUS student dormitory, library and classrooms at the Talence campus (College of Science & Technology). The party also visited Bordeaux Sciences Agro (Grandes Écoles), a UB affiliated institution which will also participate and cooperate in GIP-TRIAD and exchanged opinions with the Principal, Prof. Olivier Lavialle, Prof. Jean-Philippe Fontenelle, Director of the School of Plant Science and Director of International Exchanges, Prof. Catherine Benneteau, and other GIP-TRIAD related faculty as well as inspecting the Bordeaux Sciences Agro facilities.

On the morning of Jun. 9, a three-way GIP-TRIAD tele-conference was held at INRA-Bordeaux Center (Green campus) among UT, NTU and UB, and in continuation from the discussions of the day before, opinions were exchanged on the schedule for determination of completion of studies and on operation of various sub-committees for this program. In the afternoon, the party relocated to Carreire campus, where Prof. Kumagai, Prof. Ichikawa, and Assoc. Prof. Ohniwa held a seminar that introduced their research to UB students and faculty, followed by informal discussions with students planning to participate in GIP-TRIAD and the DDP-GFS. We hope that these sorts of mutual visits will contribute to the smooth running of the program and to securing an even better education and research environment for students.


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(1): Opinion exchange with UB related faculty.
(2): Prof. Vincent Dousset, UB Vice President for International Affairs and Prof. Kumagai
(3): Group photo after opinion exchange.
(4): Visit to Château Couhins.
(5): Visit to BordeauxSciences Agro.
(6): Visit to Planète Végétal.
(7): Visit to Planète Végétal.
(8): Prof. Kumagai introduces his research.
(9): Meeting with UB GIP-TRIAD students and DDP students.

Fusion of Field and Laboratory Studies (Taiwan)

In the 2016 academic year too, we held the pre-course in Fusion of Field and Laboratory Studies for the GIP-TRIAD. From Mar. 9 to 18, 2017, six undergraduate students from UT Medical Sciences participated. The topic this time was utilization for medical science at NTU College of BioResources . After fieldwork and sample collection at NTU Keito Experimental Forest from Mar. 10 to 12, students conducted experimental research at NTU Prof. Tang-Long Shen's laboratory from Mar. 13 to 16, on sample identification, component extraction and the effect of components on cancer cells. On Mar. 17, the students reported on their results. They also enjoyed cultural experiences such as Taiwanese tea, etc. The students benefitted from great assistance and support from Prof. Shen, and all the students and staff at Prof. Shen's laboratory.



Left: Group photo.
Center: Conducting field work.
Right: Cultural experience (Taiwanese tea).

Visit to NTU by Prof. Caroline Fern Benton, UT Vice President and Executive Director for Global Affairs and UT-NTU Alumni Association Meeting

On Mar. 21, 2017, Prof. Caroline Fern Benton, UT Vice President and Executive Director for Global Affairs, attended the Asia-Pacific Association for International Education (APAIE) conference held in Kaohsiung city, Taiwan, and during the conference, attended the informal gathering of Ibaraki Citizens and Tsukuba University Taiwan Alumni jointly held by the UT Taiwan Office in Taipei. Many people participated from the Taiwan alumni, including the Chairman, Prof. Hua-Wei Lin. In addition, students from UT and NTU currently studying on the DDP program, etc. also attended.

Group photo

Since Apr. 2017, Distance Learning Course began among UT, NTU and Kyoto University (KU).

In the 2017 academic year too, this distance learning course began (among UT, NTU and KU). This course is compulsory for NTU GIP-TRIAD students.

Scenes from distance learning courses

Construction of a New Distance Learning Course in Agro-Bioresources at NTU College of BioResources and Agriculture and Activities to Promote the Campus-in-Campus (CiC) Program

From Mar. 16 to 18, 2017, Prof. Yutaka Kitamura, Director of Agro-Bioresources, and Prof. Ryuichi Shigeno, faculty in charge of educational affairs, visited NTU and conducted coordination work in preparation for the launch of the distance learning course in Agro-Bioresources Engineering and Food Science. At the same time, Mr. Doi from UT Education Promotion also provided an introduction to CiC via Skype.

Introducing DDP and GIP-TRIAD at the UT-NTU Student Exchange Project

The UT-NTU Student Exchange Project was held as part of our project to foster Top Global University Project, and as the first event of this project, from Dec. 2 to 4, 2016, twenty UT students visited NTU and held group discussions with twenty students from NTU. Then, as the second event of this project, on May 19 to 21, 2017, NTU students visited UT and held group discussions with UT students. For details see: http://www.tsukuba.ac.jp/news/n201705221815.html At the event on May 19, NTU students currently studying at UT as DDP students and UT students planning to study at NTU from Sept. as DDP students provided an introduction to the double degree program (DDP) and responded to Q&A. In addition, we also provided an introduction to new programs for GIP-TRIAD and Campus-in-Campus. We hope that the numbers of highly-motivated students who wish to participate in these programs will continue to increase.

Top: NTU and UT DDP students (at the UT Global Village Community Station)
Bottom: Introducing DDP and GIP-TRIAD

Publication of the Special Talk among Mr. Sadaharu Oh, Prof. Hua-Wei Lin and Prof. Kyosuke Nagata in the UT Magazine, "Tsuku Comm"

An article on the Special Talk held among Mr. Sadaharu Oh, Prof. Hua-Wei Lin and Prof. Kyosuke Nagata in Taichung (Taiwan) in Nov. 2016 has been published in the April edition of the UT Magazine, "Tsuku Comm". (http://www.tsukuba.ac.jp/public/booklets/communications/pdf/201704.pdf). They discuss important matters through the topic of baseball, considered from the position of each of the players (students), manager (lab leader), and team manager (Principal), etc.

Special Talk Article

Visit to National Taiwan University (NTU) by Prof. Yoshito Kumagai (Director of GIP-TRIAD Preparation Office)

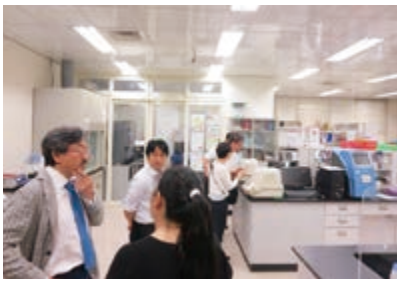
From May 15 to 16, 2017, Prof. Yoshito Kumagai (Director of GIP-TRIAD Preparation Office), Assist. Prof. Junichi P. Abe, and three Education Promotion staff members (Ms. Yoko Arai, Ms. Junko Watanabe, Ms. Yuko Matsukane) visited NTU.

On the morning of May 15, after meeting with Prof. Luisa Shu-Ying Chang, NTU Vice President for International Affairs, the party held a meeting with Prof. Tsai-Kun Li, leader of the new GIP-TRIAD program at NTU, and staff responsible for international administration on the new program implementation system and practical matters related to procedure on receiving students from overseas. In the afternoon, they visited the College of Medicine where the GIP-TRIAD office is located and met with Prof. Shan-Chwen Chang, Dean of College of Medicine. Then Prof. Kumagai made a lecture and provided a briefing on the program, which was attended not only by related faculty but also by five students who wish to study on the program from Sept., and exchanges were deepened.

During this visit, the party also inspected the NTU education and research environment and, with guidance and assistance from Prof. Chang-Chuan Chan (College of Public Health), Prof. Hsinyu Lee (Bio-technology Research Center), Prof. Ming-Ju Chen (College of BioResources and Agriculture), and Asst. Prof. Chau-Ti Ting (College of Life Science), they viewed the classrooms and laboratories in each organization that will be used for GIP-TRIAD. In addition, they also visited the Water Resources Dormitory. where GIP-TRIAD students will be accommodated, and received a briefing on the facilities and environment from the dormitory operator.

We hope that these sorts of mutual visits will continue to contribute to the smooth running of the program and to securing an even better education and research environment for students.




Top left: Meeting at international office.
Top center: Visit to College of Medicine.
Top right: Poster for Prof. Kumagai's lecture.
Bottom left: Scene from Prof. Kumagai's lecture and program briefing.
Bottom center: Inspecting the labs at College of Life Sciences.
Bottom right: External view of Shuiyuan Dormitory.

3
Editor's Note

By visiting National Taiwan University and University of Bordeaux from May to June of this year and speaking directly with GIP-TRIAD related faculty, we have been able to conduct concrete opinion exchanges among the respective faculty leaders at each university. We plan to continue to further expand and enhance information about UT faculty posted to these universities, students studying there, and UT overseas offices. Our aim is to make this newsletter as interesting and relevant for everyone as possible so please feel free to contact us with any opinions and requests relating to its content.

Inquires / Comments can be directed to:
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GIP-TRIAD Newsletter

Nov. 2017
Vol. 3

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GIP-TRIAD HP

GIP TRIAD
Leap to the Future of Food & Health

1 Introduction

The International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD) was officially started in September 2017. We were able to smoothly accept students from the University of Bordeaux and National Taiwan University as the joint degree program was launched in collaboration between the three universities with no major problems. I would like to take this opportunity to thank everyone involved for the effort they have made in establishing this educational program. In this issue, we will once again introduce GIP-TRIAD as well as report on the activities of GIP-TRIAD students between September and November and the kick-off symposium in TGSW 2017.

2 Activities

Launch of the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD)

In September 2017, Graduate School of Comprehensive Human Sciences, the University of Tsukuba established an International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD). This program is a graduate-level joint program conducted by three universities in Japan, Asia, and Europe: the University of Tsukuba, the University of Bordeaux (France) and National Taiwan University (Taiwan).

The students who comes from each university study global-scale issues: "Food and Health" at three universities together. From September 1 to 9, students from France and Taiwan arrived at the University of Tsukuba where they will spend the 1st semester (1st semester: September to February). We operate a tutor system at the University of Tsukuba which is intended to assist foreign students arriving in Japan in smoothly setting up their daily lives here (to assist with procedure for entering a dormitory, opening a bank account, setting up mobile phone and insurance contracts, etc.). We also recommend that students on this program stay at the same dormitory so that they can cooperate with each other to begin their student life here without a hitch.



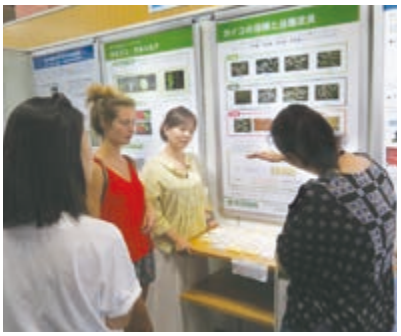
Left, Center: Arrival of GIP-TRIAD students
Right: Meeting between tutors and GIP-TRIAD students

We held an initiation seminar over three days from September 11, with an orientation, self-introductions, social gatherings and group work aimed at enabling both faculty and students to get to know one another better and cultivating friendships. On September 14 and 15, we held excursions to aim of deepening students' understanding of food security and food safety. With the cooperation of Toyo Energy Farm CO., LTD., we visited and toured a lettuce hydroponic cultivation facility and a solar-sharing farming type power generation facility. Then, on the afternoon of September 14, we visited Tsukuba City's "Tsukuba Agriculture Research Hall", and students were briefed by an expert guide on initiatives and results related to "Food & Agriculture" at Japanese research institutes. This fieldwork was a good opportunity to relieve the student's nerves as well as to share thinking and cultural differences among the students from the three universities. From September 19, the students divided into three groups and began preparations for their papers and presentations for student presentations for TGSW2017 on issues related to Food & Health and solutions to resolve them.

Group photo in GIP-TRIAD initiation seminar

Upper & middle: Scenes from self introduction in GIP-TRIAD initiation seminar
Lower: Scenes from welcome party for GIP-TRAID students

Tour of Hydroponic lettuce culture and Solar-sharing farm in TOYO Energy Farm CO., LTD.


Tour of Tsukuba Agriculture Research Hall






Scenes from group work

On September 27, a commemoration ceremony was held at the Kick-off Symposium for International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health held, with congratulatory addresses by representatives from the three universities: Kyosuke Nagata (President of the University of Tsukuba), Tei-Wei Kuo (Vice President of National Taiwan University), Vincent Dousset (Vice President of the University of Bordeaux). Then, Professor Yoshito Kumagai, Coordinator of the International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health (GIP-TRIAD), provided an overview of the program, and the faculty responsible for the program at the three universities: Ryosuke Ohniwa (Associate Professor of the University of Tsukuba), Tsai-Kun Li (Professor of National Taiwan University), and Dominique Rolin (Professor of the University of Bordeaux) each provided an explanation of the learning content. Each student group made excellent presentations of equally high standards at the student session and lots of questions raised by people attending, making it a good session. We were all impressed by the potential for further development in the future. We have great expectations for these students' activities in the future, making use of the special characteristics of this program, when the lectures and special project research begins in earnest from October.



Commemoration Ceremony at the Kick-off Symposium for the TGSW2017 International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

Commemoration Ceremony at the Kick-off Symposium for the TGSW2017 International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

Introduction of study in each University at the Kick-off Symposium for the TGSW2017 International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

Student session at the Kick-off Symposium for the TGSW2017 International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

Group photo after student session in TGSW2017

University of Bordeaux, Bordeaux Sciences Agro and INRA Nouvelle-Aquitaine-Bordeaux Centre visited University of Tsukuba

From September 25th to 27th, a party from the University of Bordeaux's College of Health Sciences, Bordeaux Sciences Agro (BSA), and INRA Nouvelle-Aquitaine-Bordeaux Centre came to Tsukuba University on the invitation of GIP-TRIAD and our Bordeaux office. BSA is a public institution of higher education in the field of agricultural science that works closely with the University of Bordeaux and INRA in both education and research through cooperating graduate schools, joint research units (UMRs), and others. These members have also been indirectly involved in the planning of activities such as the joint/double degree program and the Japan-France Joint Laboratory developed by the University of Tsukuba together with the University of Bordeaux and INRA, but had not had direct contact with our university previously. Therefore, to strengthen the possibilities for cooperation with our university, we invited Prof. Olivier Lavialle, Director of BSA, Prof. Jean-Philippe Fontenelle, delegate for international relations at BSA, and Prof. Catherine Bennetau, a core faculty member of GIP-TRIAD on the Bordeaux side, at the same time as TGSW 2017. Also attending from the University of Bordeaux were Prof. Antoine de Daruvar, Director of the Doctoral School of Health and Life Sciences, Prof. Dominique Rolin, core faculty member of GIP-TRIAD on the Bordeaux side, and Associate Prof. Kentaro Mori, while from INRA Nouvelle-Aquitaine-Bordeaux Centre came Dr. Thierry Candresse, UMR 1332 Unit Director, and Dr. Norbert Bollier. This was the first visit to our university for Prof. de Daruvar and Dr. Candresse. In the morning of the 25th, the party met with our life and environmental sciences senior staff including Prof. Hiroshi Matsumoto, Director of the Faculty of Life and Environmental Sciences, Prof. Yutaka Kitamura, Director of the College of Agro-biological Resource Sciences, and Prof. Hiroshi Ezura, Director of Tsukuba Plant Innovation Research Center (T-PIRC) to discuss our future collaboration with BSA and the potential for expanding the double degree master's program currently offered in Agro-bioresources to a doctoral program. In the afternoon, there was a visit to inspect the T-PIRC genetic test center and farm.

Meeting with our life and environmental sciences senior staff [Front row, from left: Prof. Antoine de Daruvar (Director of the Doctoral School of Health and Life Sciences, University of Bordeaux), Prof. Dominique Rolin (University of Bordeaux), Prof. Hiroshi Ezura (Director of T-PIRC), Prof. Hiroshi Matsumoto (Director of Faculty of Life and Environmental Sciences), Prof. Olivier Lavialle (Director of BSA), Prof. Yutaka Kitamura (Director of College of Agro-biological Resource Sciences); Back row, from left: Prof. Chiaki Matsukura, Dr. Thierry Candresse (INRA Unit Director), Associate Prof. Kentaro Mori (University of Bordeaux), Prof. Kazuo Watanabe (Deputy Director of T-PIRC), Prof. Yoichi Kainoh (Deputy Director of T-PIRC), Prof. Jean-Philippe Fontenelle (BSA, delegate for international relations), Prof. Catherine Bennetau (BSA), Associate Prof. Nakao Nomura, Assistant Prof. Yoshihiro Okabe]

On the 26th, the party paid a courtesy call to Caroline Benton, our Vice President of Global Affairs, and attended a TGSW symposium organized by T-PIRC titled "Leading University Forum on Plant Resilience and Innovation", given by Prof. Norbert Bollier. Their busy itinerary continued on the 27th, including the GIP-TRIAD kick-off symposium (lecturer: Prof. Rolin) held to welcome Kyosuke Nagata, President of the University of Tsukuba, Vincent Dousset, Vice President of International Relations of the University of Bordeaux, and others, before the party departed from Tsukuba on the 28th.

This was the first time that Prof. de Daruvar, Dr. Candresse and others had visited our university, and such senior faculty interaction is expected to further strengthen the partnership that our life and environmental sciences staff and Graduate School of Life and Environmental Sciences have with the University of Bordeaux and INRA in future. Also, starting with this visit, BSA intends to carry out a substantial dialog going forward.

Meeting with our life and environmental sciences senior staff

Top left: Prof. Hiroshi Ezura introducing T-PIRC

Top right: Visit to T-PIRC genetic test center

Left: Courtesy call to Caroline Benton, Vice President of Global Affairs [Far left: Prof. Takeshi Hirose (Office of Global Initiatives), 5th person: Prof. Yoshito Kumagai (Director, of the GIP-TRIAD Preparation Office), 6th person: Ms. Benton, Vice President, 11th person: Prof. Osamu Ohneda (Office of Global Initiatives), far right: Prof. Joji Kijima (Director, Bordeaux Office)]

University of Tsukuba holds Fall Study Abroad Fair

The Fall Study Abroad Fair was held at the University of Tsukuba on October 25, 2017. The six faculty and non-faculty members of GIP-TRIAD who took part were Prof. Chiaki Matsukura, Assistant Prof. Junichi Peter Abe, Assistant Prof. Masahiro Akiyama, Assistant Prof. Yoshihiro Okabe, and GIP-TRIAD administrative staff Masako Tsubomi and Youmei Wang. Our booth was in the Joint Degree/Double Degree Program area. The students who visited our booth were mainly from the College of Agro-biological Resource Sciences, as well as from the College of Geoscience, the College of Social Sciences, and others. We hope many of them will apply to join GIP-TRIAD.

3 Editor's Note

This issue is the first newsletter since the launch of GIP-TRIAD. From now on, we will focus mainly on the activities of GIP-TRIAD students while continuing to provide information about exchanges of faculty and non-faculty staff members.

We are planning to extend our public relations activities, such as by updating our website, launching a Facebook page, creating leaflets, and so on.

We want to make this newsletter more useful to you all, so please send any comments or requests you may have to the contact person below.

Inquires / Comments can be directed to:
Head Editor: Yoshihiro Okabe (Asst. Prof., Faculty of Life and Environmental Sciences, University of Tsukuba)
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GIP-TRIAD Newsletter

Mar. 2018

Vol. 1

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1 Introduction

13 GIP-TRIAD students finished the 1st semester at the University of Tsukuba successfully, and started a new life in Taiwan from the end of February, 2018. In this, the first issue of 2018, we report on the campus and the facilities of Bordeaux Sciences Agro (BSA). Finally, we report on the recent activities of GIP-TRIAD students.

2 Activities

University of Tsukuba team visits University of Bordeaux and Bordeaux Sciences Agro

From November 20th - 22nd, 2017, the University of Tsukuba International Joint Degree Master's Program in Agro-Bio-medical Science in Food and Health (GIP-TRIAD) team toured and visited the GIP-TRIAD related facilities at the University of Bordeaux and Bordeaux Sciences Agro to promote GIP-TRIAD. Three members from the University of Tsukuba, Professor Yoshito Kumagai (director of GIP-TRIAD), Assistant Professor Yoshihiro Okabe (Faculty of Life and Environmental Sciences), and Youmei Wang (GIP-TRIAD administrative staff member), participated in the tour and conversed with educators from the University of Bordeaux and Bordeaux Sciences Agro.

On November 20th, Professor Caterine Bennetau (University of Bordeaux, Bordeaux Sciences Agro) introduced the e-learning courses offered by the University of Bordeaux. Composed of three courses (Course 1 Food-supplements: Safety, Efficiency Innovation; Course 2 Agronomy of plants with Health Benefits; Course 3 Food-supplements (from 2018): Physiology and Medical Approach), the system enables students to attend lectures from afar using Polycom. Later that afternoon, the team held an introductory meeting for University of Bordeaux students who were interested in GIP-TRIAD. Professor Yoshito Kumagai and Youmei Wang introduced the program and the university, respectively, to the six participating students. Later, the team photographed and filmed the University of Bordeaux campus and visited the research lab of Professor Thierry Noel, one of the GIP-TRIAD educators from the University of Bordeaux.






November 20th: Scenes from the Bordeaux tour
Top Left: Professor Caterine Bennetau explains the E-learning course, Top Middle: Introducing GIP-TRIAD
Top Right: Group photo after the introductory session, Bottom Left: Meeting with Professor Thierry Noel, Bottom Middle and Left: UB facilities

On November 21st, the three universities held a joint video-conference at INRA-Bordeaux-Aquitaine (INRA-Green campus). The team took their lunch at the facility cafeteria after touring the INRA-Green campus tomato cultivation greenhouse and laboratories. Later that afternoon, the team visited Bordeaux Sciences Agro (BSA, Grandes Ecoles) and

met with Professor Olivier Lavialle, president of BSA, to discuss the participatory framework for BSA in GIP-TRIAD. Later, Professor Caterine Bennetau guided the team on a visit through the BSA-administered dormitory where the GIP-TRIAD students are scheduled to live from September, the cafeteria, and the lecture halls.






November 21st: Touring Bordeaux Sciences Agro (BSA)
Top Left: Meeting with Professor Olivier Lavialle, President of BSA, Top Middle: Students during their studies, Top Right: Cafeteria
Bottom Left: Library, Bottom Middle and Left: Lecture hall

On November 22nd, the BSA educators introduced the content of their research, and the team met with students who were interested in GIP-TRIAD. Later, the team promoted GIP-TRIAD in the auditorium to first-year BSA students. After Professor Caterine Bennetau provided an overview of GIP-TRIAD, Professor Yoshito Kumagai held a special mock lecture on Toxicology and on Food and Health. Approximately 100 BSA students attended, to whom leaflets and souvenirs were distributed. We hope that many of these students will apply to GIP-TRIAD in two years. Later that afternoon, the team took their lunch at the winery (Château Luchey-Halde) owned by BSA, after which Associate Professor Alfredo Coehlo introduced the Master of Business and Science in Vineyard & Winery Management at BSA. Later, Guilherme Martins provided a general explanation of the Luchey-Halde vineyard and winery.

Although the schedule was tight, the team's time in Bordeaux was fruitful in terms of providing support for GIP-TRIAD students in the future and strengthening the cooperative framework between the universities.

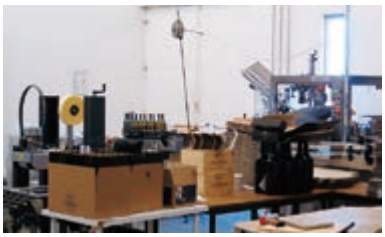





November 22nd: Holding the GIP-TRIAD introductory session at Bordeaux Sciences Agro
Left and Middle (4 photos): Explaining GIP-TRIAD to BSA, Right (2 photos): Introductory meeting for first-year BSA students





November 22nd: Touring the Bordeaux Sciences Agro (BSA) winery (Château Luchey-Halde)
Left (3 photos): Wine-making facilities at Château Luchey-Halde
Top Middle: Château Luchey-Halde vineyard, Top Right: Associate Professor Alfredo Coehlo explains the Master's Program
Bottom Right: Post-tour group photo

GIP-TRIAD holds farewell party for the 1st semester

On January 15th, 2018, GIP-TRIAD held the 1st semester farewell party to provide thanks for their hard work during the 1st semester and to bid farewell to the students heading to Taiwan in February. In part because it was the first year for the program, these six months were hectic for students and educators alike, but the 1st semester came to a close without a hitch. The groupwork, lectures, and laboratory work during this time seem to have strengthened the bond between the students. Meanwhile, GIP-TRIAD has received many requests regarding the program from the students, which have also brought to light the points that must be improved going forward. By applying the points of reflection from the first year to coming years, GIP-TRIAD will work to improve the course content and the program administrative framework to build an even better program for the students.






Scenes from the 1st semester (Tsukuba) GIP-TRIAD farewell party

Scenes from the 1st semester (Tsukuba) GIP-TRIAD farewell party

GIP-TRIAD students arrive in Taiwan

Having finished their 1st semester at the University of Tsukuba, the GIP-TRIAD students arrived safely in Taiwan on February 23rd, 2018. After getting settled into their daily lives in Taiwan, the students will begin their 2nd semester. Through lectures and field studies at National Taiwan University, the students are expected to grow further as they acquire a range of experiences.

GIP-TRIAD in Taiwan

Preparing the GIP-TRIAD promotional video

The first GIP-TRIAD class cooperated with GIP-TRIAD staff to produce a promotional video for GIP-TRIAD. The video can be viewed on the GIP-TRIAD website (http://www.gip.tsukuba.ac.jp/index.html). For anyone interested in viewing the video, please access the website.

3 Editor's Note

We will continue to post the activity status of the GIP-TRIAD students in Taiwan on Facebook and provide reports through this newsletter. Along with this newsletter, we have also posted video messages about GIP-TRIAD from the students on the website. We are also planning to enrich our public relations activities, including updates to our website and Facebook page, and preparing leaflets.
Our goal is to make this newsletter more informative for everyone, so if you have any comments or requests, please contact us at the following address.

Inquires / Comments can be directed to:
Head Editor: Yoshihiro Okabe (Asst. Prof., Faculty of Life and Environmental Sciences, University of Tsukuba)
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Leaflet

GIP-TRIAD

International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

筑波大学 University of Tsukuba

université de BORDEAUX

國立臺灣大學

国際連携食料健康科学専攻

International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health

「食と健康」に関わるイノベーションを生み出そうとする強い意志を持つ学生を求めます

世界を巡って「食と健康」を学ぶ初の欧州＆アジア＆日本共同での学位プログラム

GIP TRIAD Leap to the Future of Food & Health

国際連携食料健康科学専攻とは

本専攻では、世界的にも稀有な国境、大学、専攻の枠を超えた連携と「食と健康」に関わる学問分野（農学・医科学）の融合によって修士（食料健康科学）を創出します。

連携大学が持つ多様なフィールドにおける実践的教育研究活動を通じて、食と健康に関わる地球規模問題を解決できる人材の育成を目指します。

3大学合同による学位（ジョイント・ディグリー）の授与

所定の単位を修得した後、3大学合同による最終審査に合格した場合、1枚の学位記に3学長が連名した「修士（食料健康科学）」の学位が授与されます。

- 食品加工学
- 食品科学
- 植物分子遺伝学
- 植物寄生菌学
- 植物生理学
- 植物育種学
- フードセキュリティー
- メタボロミクス
- ワイン醸造学
- 農業経済学
- 栄養学
- 園芸学

農学 ／ 医科学

- 環境医学
- グローバルヘルス
- 微生物学
- 神経生理学
- 幹細胞生物学
- 分子細胞生物学
- シグナル伝達
- ウイルス学
- 医科学
- 毒性学

3大学の特徴的な実践的フィールド

筑波大学
UNIVERSITY OF TSUKUBA

- 健康医科学イノベーション棟
- 国際共同教育ラボ
- つくば機能植物イノベーション研究センター
- 農学・食品系企業 など

ボルドー大学
UNIVERSITY OF BORDEAUX

- INRA-Bordeaux (Green Campus)
- Bordeaux Science Agro
- 農学系企業 など

国立台湾大学
NATIONAL TAIWAN UNIVERSITY

- 溪頭実験演習林
- 南投実験演習林
- バイオテクノロジー系企業 など

カリキュラム

授業科目は、「食と健康」に関する学問的な基礎及びマネジメント等の基礎を養う「基礎科目」、実践的学修を通じて課題発見・解決能力及び高度専門職業人としての資質を養う「専門科目 I」、健康と食資源に関する専門性を養う「専門科目 II」に区分して配置します。また、グローバル社会と研究開発を橋渡しすることのできる専門力と実践力を備えた国際的な高度専門職業人を養成するという目的を踏まえ、フィールド活動やインターンシップなど実践的学修を重視します。

入学	第1セメスター　筑波大学	第2セメスター　国立台湾大学	第3セメスター　ボルドー大学	第4セメスター　3大学から選択	修了
学修目標	・健康と食資源に関する専門基礎力 ・物質の生体への効用・安全性評価に関する専門力 ・起業家精神、マネジメント力 ・専門英語力	・健康と食資源に関する専門力 ・アジアの社会・自然環境における課題発見・解決能力 ・アジア企業におけるR&D、マネジメント	・健康と食資源の結びつき及び食資源の評価開発に関する専門力 ・欧州の社会・自然環境における課題発見・解決能力 ・欧州企業事情、キャリア形成	・研究テーマに応じた一層の専門力 ・修了後の進路希望に応じた実践力	学位授与
授業科目	基礎科目 ・食料健康科学概論 ・環境医学概論 ・アントレプレナーシップトレーニングI, II ・専門英語（医学又は生物資源科学） 専門科目I ・食料健康科学演習I ・食料健康科学研究I 専門科目II ＜健康と食資源科目群I＞ ・基礎毒性学 ・ガンの生物学 ・橋渡し研究概論　等	基礎科目 ・バイオアントレプレナーシップトレーニング 専門科目I ・食料健康科学演習II ・食料健康科学研究II ・生物医科学研究の橋渡しのためのブートキャンプ ・フィールドと実験室の融合（台湾） ・台湾企業インターンシップI 専門科目II ＜健康と食資源科目群II＞ ・生体分子の細胞ネットワーク ・グローバルヘルス諸課題 ・台湾農業　等	基礎科目 ・キャリアパス・セミナー 専門科目I ・国際科学セミナー ・オミクスとバイオインフォマティクスの食料健康科学への応用 ・フィールドと実験室の融合（フランス） 専門科目II ＜健康と食資源科目群III＞ ・水性及び食源性微生物と食習慣 ・栄養・生体制御と主要疾患 ・植物育種学の最先端とその利用 ・欧州における食品安全・保健政策　等	専門科目I ・日本企業インターンシップ ・台湾企業インターンシップII ・フランス企業インターンシップ 専門科目II ・研究テーマに関連する専門科目（必要に応じ）	
学修プロセス	9月　・全体及び第1セメスターガイダンス ・研究計画書の提出 ・指導教員（主1人・副2人）の決定 ・個別履修指導・相談 9月~1月　・授業科目の履修【15単位以上】 ・研究指導 1月　・特定課題研究のテーマ案提出	2月　・第2セメスターガイダンス 2月~6月　・授業科目の履修【15単位以上】 ・研究指導 6月　・特定課題研究の計画案提出	9月　・第3セメスターガイダンス 9月~1月　・授業科目の履修【15単位以上】 ・研究指導 1月　・特定課題研究中間発表会	2月　・第4セメスターガイダンス 2月~6月　・インターンシップ ・特定課題研究のまとめ 6月~8月　・特定課題研究報告書の提出 ・審査体制の決定 ・特定課題研究発表会 ・特定課題研究報告書の審査、最終試験、修了判定	
到達度評価					

国際連携食料健康科学専攻　主な担当教員一覧

筑波大学

Yoshito Kumagai Professor	Environmental medical science
Masao Ichikawa Professor	Global health
Osamu Ohneda Professor	Stem cell biology
Masayuki Matsumoto Professor	Neurophysiology
Kazuya Morikawa Professor	Bacterial genetics
Ryosuke Ohniwa Associate Professor	Molecular microbiology / Incubation Studies
Masahiro Akiyama Assitant Professor	Environmental medical science
Yuichi Yamaoka Professor	Plant parasitic mycology
Hiroshi Ezura Professor	Plant breeding and genetics
Yutaka Kitamura Professor	Agro-food processing
Chiaki Matsukura Professor	Plant physiology
Junichi P. Abe Assistant Professor	Plant parasitic mycology
Yoshihiro Okabe Assistant Professor	Plant molecular breeding

ボルドー大学

Dominique Rolin Professor	Metabolomics
Thierry Noel Professor	Microbiology
Catherine Bennetau Professor	Nutrition
Philippe Gallusci Professor	Plant Molecular Genetics
Eric Gomes Professor	Ecophysiology
Michael Kann Professor	Virology
Michel Hernould Professor	Plant Physiology
Gerard Barroso Associate professor	Mycology
Frederic Delmas Associate professor	Plant Physiology
Stephanie Krisa Associate professor	Oenology
Kentaro Mori Associate professor	Plant Physiology
Valerie Schurdi-Levraud Associate professor	Plant Breeding

国立台湾大学

Tsai-kun LI Professor	Drug and health food product development
Hsinyu LEE Professor	Signal transduction
Chang-Chuan CHAN Professor	Environmental Epidemiology and Global health
Han-Yi CHOU Associate Professor	Stem cell and nanobiotechnology
Ming-Ju CHEN Professor	Animal-based foodstuff

問い合わせ先　入試・本専攻に関する問い合わせ

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窓口受付時間：8時30分から17時15分まで（12時15分～13時15分を除く）

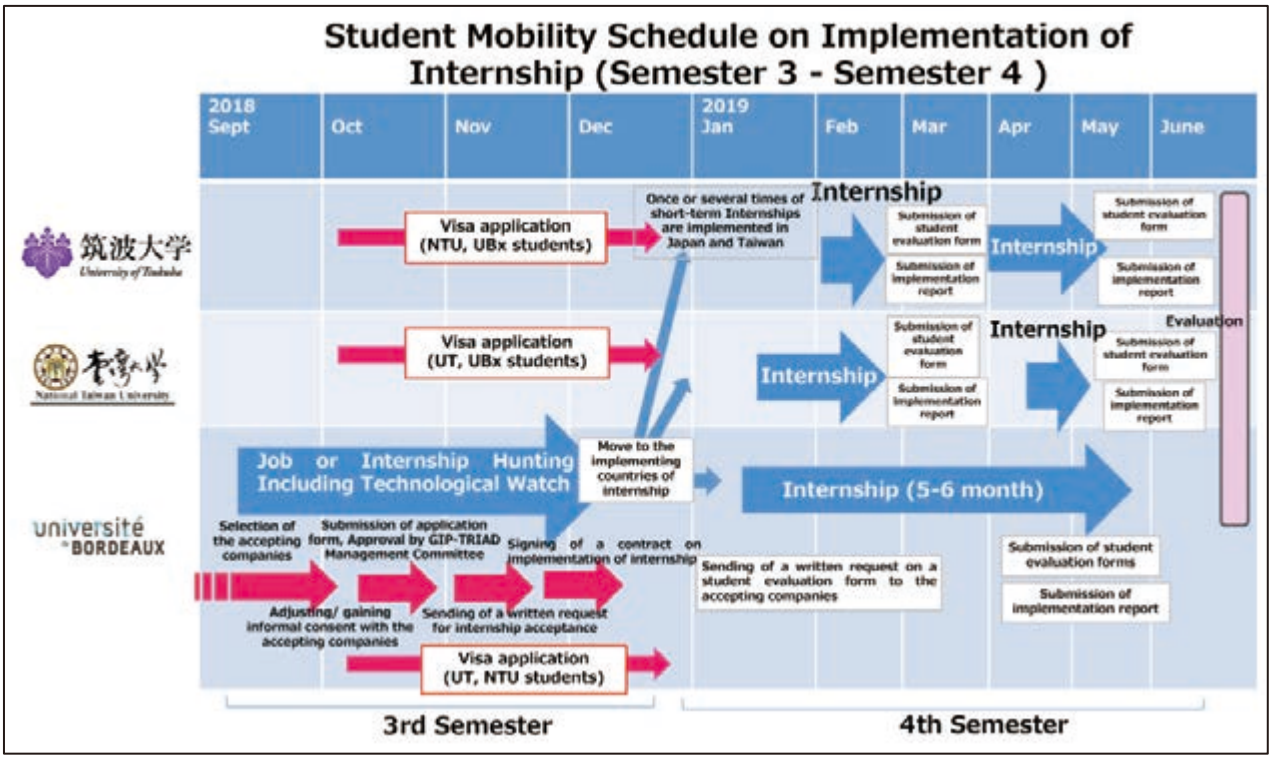
GIP TRIAD

GIP-TRIADロゴマークについて

本専攻の開設準備を3か国（大学）同時に進めていく関係上、共通した指標が必要であり、Global Innovation Joint-Degree Program というスローガンを立てて、その準備を進めた、GIP-TRIADとは、そのスローガンの略と3か国（大学）の連携であること示している。また、現在のロゴマークはそれに準じて作成したものである。

平成29年度版

Third and fourth semester internship workflow



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International Joint Degree Master's Program in
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