



Fostering long-term creativity and innovation with science and technology disciplines based on Ochanomizu spirit "Migakazuba" in the next generation of global leaders

Program for Leading Graduate Schools

Vol. 6
November 2015

Bouquet

Newsletter

Ochanomizu University

Topic

Global Internship

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Joint Meeting with Waseda and Keio Universities' Programs for Leading Graduate Schools (See P04)



お茶の水女子大学
Ochanomizu University

Topic

Global Internship

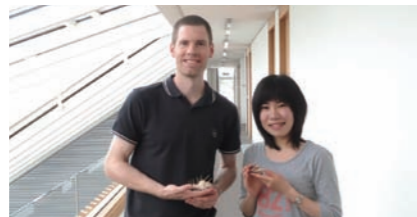
First batch students participating in internship programs in and outside of Japan

Purpose

Students have two opportunities to engage in long-term internships in Japan or abroad at research institutions, at global corporations, and/or other universities to advance their research in Project Based Team Study (PBTS).



at New York University



at the University of Oxford



Japanese Association "Himawari-kai" (daycare group for the elderly in Pirapo city)

Period

- Global Internship I : 3-6 months in the second year of the Master's program
- Global Internship II : 6-12 months in the first/second year of the Doctoral Program

Report on Global Internship in academic year 2015

Name	Major	Destinations	Period	Research target
Yuyu SO	Advanced Sciences; Computer Science (M2)	New York University (USA)	March - June, 2015	PBTS Education team Research on programming education
Kanako ENOYOSHI	Advanced Sciences; Mathematics (M2)	University of Oxford (UK)	April - July, 2015	PBTS Synchronization team Making a mathematical model of seashell structural patterns
Kaori NISHIDA	Life Sciences; Human Environmental Sciences (M2)	University of Technology Sydney, Institute for Sustainable Futures (Australia)	June - September, 2015	PBTS Water purification team Analysis of determinants of historical water demand and projection of future water demand
Yuko CABALLERO	Life Sciences; Food and Nutritional Sciences (M3)	Japanese Association in Pirapo, Himawari-kai (daycare group for the elderly) Pirapo City Hall (Republic of Paraguay)	July - September, 2015	PBTS Anti-aging team Himawarikai: Reserch on relationship with elder people and tea Pirapo City Hall: Nutritional calculation for school meals
Ritsuko TAMURA	Life Sciences; Biological Sciences (D1)	National Institute of Health and Nutrition (Japan)	July - September, 2015	PBTS Anti-aging team Observational cohort study for lifestyle-related diseases using plasma amino acid profiles
Kimiko YAMASHITA	Advanced Sciences; Physics (D1)	Virginia Polytechnic Institute and State University (USA)	August - December, 2015	PBTS Synchronization team Modeling of skin cells
Akiko MITO	Advanced Sciences; Chemistry and Biochemistry (D1)	FUJITSU LIMITED (Japan)	August - November, 2015	PBTS Education team Planning of programming education project
Nanami KAWAGUCHI	Advanced Sciences; Chemistry and Biochemistry (M2)	Strasbourg University (France)	September - December, 2015	PBTS Water purification team Analysis of pesticides in vineyard soil and water
Dongyang LI	Life Sciences; Biological Sciences (M2)	Strasbourg University (France)	September - December, 2015	PBTS Anti-aging team Exploration of tropical orchids and their potential interest in anti-aging cosmetics
Kei HASHIMOTO	Life Sciences; Biological Sciences (D1)	Ochanomizu University (Japan) Shimane University (Japan)	October, 2015 December, 2015 - February, 2016	PBTS Synchronization team Pathogenic mechanism of Ehlers-Danlos syndrome

M=Master's course
D=PhD course

The 1st Presentation on Global Internship Report 2015



Dates: Wednesday, October 21, 2015

Venue: "Career Cafe" at Ochanomizu University Library

This year, the first batch of students participate in the Global Internship I program. On this day, four students who completed their internship gave presentations in English about their experiences. The presentations were held at the Career Café in the University Library, and attracted a large audience. The second presentation on Global Internship Report for December 2015 is also being scheduled.



Program for Leading Graduate Schools Forum 2015



Dates: Saturday, October 24 and Sunday, October 25, 2015

Venue: Bellesalle Shinjuku Grand, Tokyo

The Program for Leading Graduate Schools Forum 2015 was held and attended by all 62 program participants who are striving to nurture highly qualified human resources with the ability to display leadership in realizing sustainable development and the growth of our society. During the Forum, Professor Hazuki Furukawa, the Program Coordinator, presented the "Summary and Achievement of Project Based Team Study in Leading Program of Ochanomizu University" at a program workshop held on the second day. Students from our university also worked on various issues together with students from other universities, which provided them with an opportunity to exchange information and deepen mutual exchange. We will continue in our endeavour to offer programs of the highest quality in the future.

ACTIVITY REPORT

Here are examples of program activities during Summer- Autumn 2015; Joint meeting with other universities' programs, PBTS team studies, the new "Special Practical Training on Sci-Tech courses" and the international competition, BIOMOD.

01 Joint Meeting with Waseda and Keio Universities' Programs for Leading Graduate Schools

Three universities participating in the Program for Leading Graduate Schools met for the first time in Ochanomizu University on August 27th under the auspice of a Joint Meeting. Students and professors from Waseda's "Energy-Next PhD Program" and Keio's "Program for Science for Development of Super Mature Society" joined this event. Twenty-six students from all programs participated. After each program and student's introductions, students divided into teams and worked on how to scientifically approach different contemporary issues that pose serious social challenges (environmental policies, hyper-aging society / low birthrate, prevention of natural disaster etc.). The teams presented to the audience their results in the last part of the event and the best team was awarded "Best Presentation Award".

This first joint meeting among the three universities was successful, with enhanced student involvement through exchanging research and study experience and activity participation with relation to their respective program. Also students were driven to speak English with each other most of the time. It was agreed to continue of the event and on holding the next Joint Meeting by participants.

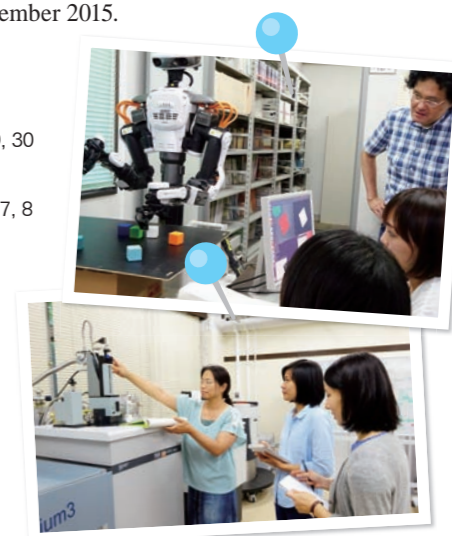


03 Special Practice in Global Science & Technology

The Special Practice in Global Science & Technology program offers laboratory work using the most advanced instruments equipment in various scientific fields. The objective is to have students participate in fields outside of their specialty so that they can broaden their interdisciplinary perspectives. This program welcomes the participation not only of students in the Leading Program but also those in the master and doctoral programs, and is approved for the receipt of credits. The following six courses were held in August and September 2015.

(15 classes of 90 minutes each per course)

- Special Practice in Global Science & Technology I (Laboratory Work 1: Computer Science Course) Dates: Aug. 18, 19, Sep. 25, 29, 30
- Special Practice in Global Science & Technology II (Laboratory Work 2: Physics Course [Inorganic Substance]) Dates: Sep. 2, 3, 4, 7, 8
- Special Practice in Global Science & Technology III (Laboratory Work 3: Chemistry Course) Dates: Aug. 26, 28, Sep. 1, 3
- Special Practice in Global Science & Technology IV (Laboratory Work 4: Biology Course) Dates: Sep. 15, 16, 17, 18, 25, 28
- Special Practice in Global Science & Technology V (Laboratory Work 5: Food Nutrition Course) Dates: Sep. 14, 15, 16, 17
- Special Practice in Global Science & Technology VI (Laboratory Work 6: Human Environment Course) Dates: Aug. 17, 18, 19, 20



02 PBTS Report (Education team)

The project of Education Team is aimed at cultivating students' logical thinking ability through programming. Last year, we visited several schools and the Ministry of Education to investigate what is needed by students and teachers. Currently we are developing a "stepper", which is a tool that helps novice programmers understand and debug their programs, and reading the literature on class design and student assessment. Our goal is to create a model of a programming class using the stepper and give a trial lecture in a high school.



04 Ochadai BIOMOD team joined "BIOMOD 2015"

The Ochadai BIOMOD Team was made out of eight Ochanomizu University students after having recruited members in April. BIOMOD is an international student competition where participants design biological molecules with the objective of producing objects that are sized at a nano- to micro-meter level. Under the guidance of Dr. Nathanael Aubert-Kato (Assistant Professor, Computer Science), the team was involved in activities such as conducting experiments, writing reports, and developing a website, and participated in the BIOMOD 2015 Japan Competition that was held on September 5 (Sat.) at the University of Tokyo. Although this was the first time the team had entered this competition, they won 5th place. The team also attended the international competition held on November 1 (Sun.) at Harvard University (USA), and gave a presentation in front of 30 teams gathered from 11 countries around the world.



STUDY COMMONS

Study Commons teachers from countries around the world support students' PBTS research. We introduce them and their various specialty in this page.



Xavier Dahan, Project Associate Professor
[Applied Computational Algebra]

1. My hometown in France:

Hello everyone, I am from the Paris suburbs. More precisely, I have been growing and lived just next to Versailles, the former and last residence of Kings of France since Louis XIV. The "palace of Versailles" is one of the most visited in the world. I used to do my jogging in the beautiful park! Versailles is a lovely town surrounded by greeneries and a forest, but still close to Paris (less than 15min by express train). It is

also very near to the "Ecole Polytechnique", a former military school where I have studied for 5 years. It is well-known school in France to educate scientists and engineers...and actually, quite a lot of managers in banks. In this stimulating scientific environment, I started to study Computer Science, and I decided to study "computational mathematics" rather than only Mathematics.

2. Interest in science:

I like the rigorous approach provided by equations to describe and understand the world surrounding us.



Sabine Gouraud, Project Associate Professor
[Molecular Biology and Physiology]

1. My hometown in France:

I was born in Limoges (west-central France), city famous for its porcelain and enamel that you can find in many stores here in Japan! I spent my childhood in a very small city near Limoges, called Chateauponsac, surrounded by forests, rivers, lakes, fields and old castles.

2. Interest in science:

From my youngest age, I was fascinated by the nature and animal life and also concerned about severe diseases. Biology was my favorite course at school and it led me to become a researcher in Biology! I did a PhD in Physiology and Physiopathology of Nutrition in both University Paris 7 (France) and University of Bari (Italy), studying the regulation of water homeostasis at the kidney level. I am now investigating the mechanisms of the central regulation of blood pressure by combining molecular and cellular biology with physiology studies. I am proud of participating in the understanding of one the deadliest disease in the world: Hypertension.



Gary Richards, Project Associate Professor
[Supramolecular Chemistry and pi-Conjugated Materials]

1. My hometown in England:

I was born in Hull, a city in the county of East Yorkshire, in the northeast of England. I went to the University of Hull to study both my undergraduate degree and PhD in chemistry. The University of Hull is famous for the development of liquid crystals and liquid crystal displays.

During my PhD, I developed liquid crystals for a new type of display technology –

the organic light-emitting diode (OLED) display. Since then, my research interests have centered on various aspects of pi-conjugated materials and supramolecular chemistry.

2. Interest in science:

I have always been interested in science since I was a young boy. I was always reading books from my local library and trying out my own experiments at home, such as making a water-rocket, or playing around with my chemistry set so it was a natural progression for me to study a science subject at university.



This year, we invited a new lecturer from France for The Essential Physics for Global Leaders I. We interviewed Dr. Bianche her background and impression of living in Japan.



Bianche, Anne-Laure
[Part-time Lecturer, Essential Physics for Global Leaders I]

1. My hometown in France:

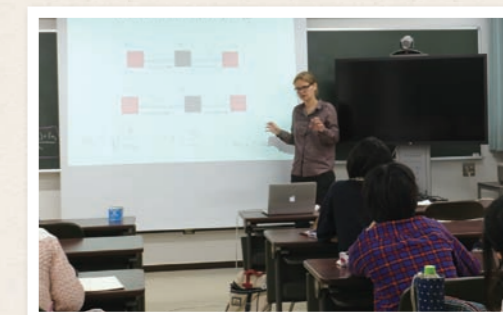
I come from Lyon. This is a city in the middle of France, not so far from the Alps, and when the weather is clear, you can see the Mont-Blanc. Lyon is known as the capital of gastronomy, which is very important for French people. Many chefs have restaurants over there, and you can often have great taste discoveries.

2. Interest in science:

When I discover we can predict and describe the world surrounding us with abstract concepts, it fascinated me. Another very important feature of science for me is that we are always surprised, and most of the time, our first common sense leads to wrong conclusions.

3. Students in Japan:

Japan is a very quiet and relaxing country. But it is very rare to have a room filled of women when you teach physics! This will never happen in France, but it creates a nice atmosphere. One another noticeable thing is that the students are very respectful though a little bit shy.



■ Information on selection examination

Selection process for Academic Year 2016 April

Information session for prospective students:
December 16, 2015/January 20, 2016 (tentative)

Application: February 3-15, 2016

Selection examination: February 22-23, 2016 (tentative)

Acceptance announcements: End of February, 2016 (on the website)

Please visit the website for more details: <http://www-w.cf.ocha.ac.jp/scitech/>



■ Report of activities

July 12&18, 2015	Exhibition at the 2015 College Guidance Fair for International Students (Tokyo, Osaka)
August - September, 2015	Special Practice in Global Science & Technology I - VI
August 27, 2015	Joint Meeting with Waseda and Keio Universities' Programs for Leading Graduate Schools
August 31, 2015	Selection examination for Academic Year 2015 October pQE(periodic Qualifying Examination)
September 24, 2015	The 1st Presentation on Global Internship Report 2015
October 21, 2015	Program for Leading Graduate Schools Forum 2015
October 24&25	

■ Information on offered lectures for Academic Year 2015 second term

October 5, 2015	Essential Computer Science for Global Leaders II
October 14, 2015	Essential Physics for Global Leaders I
October 15, 2015	Essential Bioinformatics for Global Leaders I
October 27, 2015	Essential Mathematics for Global Leaders II
November 17, 2015	Essential Engineering & Technology for Global Leaders I
December 1, 2015	Essential Philosophy for Global Leaders
January 25, 2016	Essential History for Global Leaders

■ Report on implementation of Global Internship I

August - November, 2015	FUJITSU LIMITED (Japan)
August - December, 2015	Virginia Polytechnic Institute and State University(United States)
September - December, 2015	Strasbourg University (France)
December, 2015 - February, 2016	Shimane University (Japan)

■ Scheduled activities

December 16, 2015	The 2nd Presentation on Global Internship Report 2015
March, 2016	The 3rd Presentation on Global Internship Report 2015 (tentative)

Editor's notes

In this volume, we introduced the students' activities for "Global Internship I". They will continue to undertake internship in various zones, gaining valuable experience and learning about safety and security by themselves while away from home. We hope there will be peace in 2016.

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