



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

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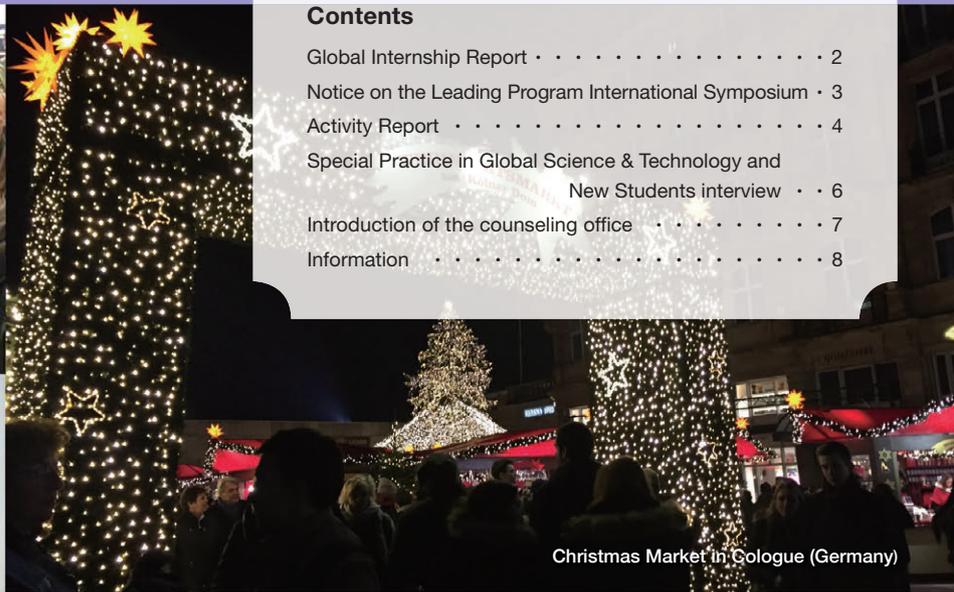
# Bouquet

Newsletter

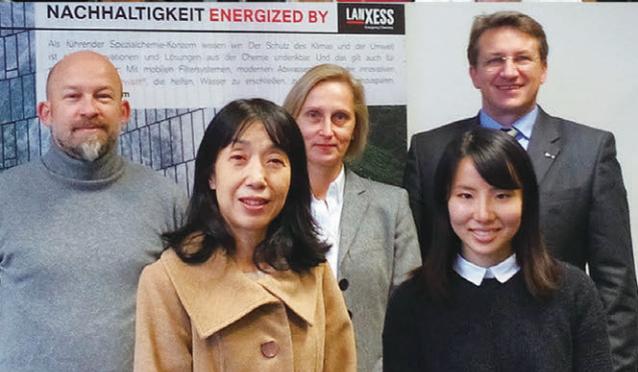
Ochanomizu University

**Contents**

Global Internship Report . . . . . 2  
 Notice on the Leading Program International Symposium . 3  
 Activity Report . . . . . 4  
 Special Practice in Global Science & Technology and  
 New Students interview . . . 6  
 Introduction of the counseling office . . . . . 7  
 Information . . . . . 8



Christmas Market in Cologne (Germany)



The Marenostram building (Spain)



Global Internship in 2016 (see p.2)

Topic

# Global Internship

## Taking on challenges to succeed in the wider world

### Global Internship

Students participate in medium to long-term internships (Global Internship I & II) at research institutions, companies, and other universities both in and outside of Japan to advance their Project Based Team Study (PBTS) research. Students are provided with robust assistance to undertake internships outside Japan.

Last year the first year students completed the Global Internship I and learned much from the invaluable experiences they gained off campus. We have received glowing reviews from instructors at the internship sites on the research results and work performance of the interns.



### List of Global Internship I & II sites for the 2016 academic year (as of December 2016)

#### ● Global Internship I (3-6 months): Scheduled in second year of master's program

Name	Major	Destination	Period	Research target
Duong Thi Thu Ha	M2, Biological Sciences, Life Sciences	Barcelona Supercomputing Center - Life Sciences - Protein interaction and docking (Spain)	September - December, 2016	PBTS TCDD Team Computational approaches to the docking problems.
Megumi Kitagawa	M2, Mathematics, Advanced Sciences	Institute of Mathematics Polish Academy of Sciences, Banach Center (Poland)	September - December, 2016	PBTS TCDD Team Studies on symmetric properties from a mathematics approach. Enhanced global communications skills through interactions with experts.
Moeka Nakayama	M2, Chemistry and Biochemistry, Advanced Sciences	Lanxess Deutschland GmbH (Germany)	September - December, 2016	PBTS TCDD Team Learned about corporate environmental conservation activities in Germany, one of the most advanced countries regarding environmental issues.
Misato Takahashi	M2, Physics, Advanced Sciences	Tokyo university (Japan)	December, 2016 - April, 2017	PBTS TCDD Team Research on electronic structure utilizing photoelectron spectroscopy. Learned about data analysis methods, etc.

#### ● Global Internship II (6-12 months): Available during first and second years of doctoral program

Name	Major	Destination	Period	Research target
Kaori Nishida	D1, Sciences, Human-Environmental	Tokyo Engineering Consultants Co - Ltd. (Japan)	August, 2016 - February, 2017	PBTS Water purification Team Acquired practical experience toward learning about utilization methods of data associated with water, and participated in research presentation.
Kei Hashimoto	D2, Biological Sciences, Life Sciences	Riken (Japan)	August, 2016 - February, 2017	PBTS Synchronization Team Analysis of skin formation mechanism.
Yuyu So	D1, Computer Science, Advanced Sciences	College of Computer and Information Science, Northeastern University (USA)	September - December, 2016	PBTS Education Team Observed how beginners learn about programming based on "How to Design Programs."
Akiko Mito	D2, Chemistry and Biochemistry, Advanced Sciences	Ministry of Education, Culture, Sports, Science and Technology (Japan)	October - December, 2016	PBTS Education Team Researched and analyzed examples on enhancing the quality of university education, and collected data related to graduate school education.
Nanami Kawaguchi	D1, Chemistry and Biochemistry, Advanced Sciences	Toray Industries, Inc. (Japan)	November, 2016 - January, 2017	PBTS Water purification Team Conducted practical training on medicinal molecular design.
Kimiko Yamashita	D2, Physics, Advanced Sciences	Laboratory of Subatomic Physics & Cosmology, Grenoble (France)	November, 2016 - May, 2017	PBTS Synchronization Team Held discussions on conducting model simulations on physical phenomena.

### Global Internship Report

**Yuyu So (Advanced Sciences; Computer Science (D1))**  
College of Computer and Information Science, Northeastern University, USA

I visited Northeastern University and attended an introductory course on programming. The course was aimed at improving problem solving skills through programming. It was a huge course; we had 400 students, 7 lecturers, and 50 TAs and tutors. The students were highly motivated and the lecturers were making efforts to improve their teaching all the time. My host professor gave me the opportunity to help the students solve the exercises as well as to grade the exams. Through these activities, I observed how much progress each student made during the semester.



**Moeka Nakayama (Advanced Sciences; Chemistry and Biochemistry (M2))**  
Lanxess Deutschland GmbH, Germany

I performed an internship in German chemical company, Lanxess GmbH Business Unit Leather for 3 months. The project target PBTS is to develop the detection method for dioxin. In order to learn about the effort of chemical companies to avoid pollution and save environment, I belonged to the Department of Health, Safety, Environment and Quality (HSEQ). Tanning, which is one of the most important steps of leather making, contains many kind of chemicals. The effects of tanning agents on the environment and consumer health were investigated by collecting flow samples of making leather and rub tests in the pilot plant. Getting rich knowledge about safety use of harmful chemicals, it should be utilized for next PBTS project.



In addition, through the experience of working in foreign companies, I found many common and different points of working style, hours, attitude, and so on. This experience should be given me many good aspects in the future.



### International Symposium: "Corporate Expectations for Women PhDs" (Admission free, Prior registration required)

An open international symposium entitled "Corporate Expectations for women PhDs" will be held to facilitate networking between sci-tech students and industry. Simultaneous interpretation is available. (English - Japanese)

#### "Corporate Expectations for Women PhDs"

Registration Form



**Day & Time: Tuesday, March 7th, 2017**

- Symposium – 13:00-17:00
- Networking Session – 17:30-19:30

**Venue: Ochanomizu University**

- Symposium – Inter-faculty Building 2, Room 201
- Networking Session – Student Commons Building, 2F

**Registration: Prior registration is required for Symposium and Networking Session. See our website, <http://leading.dc.ocha.ac.jp/leading/en/e20170307/>**



# ACTIVITY REPORT

## 1 Exchange meeting with outside program Members

October 21, 2016  
PBTS Lounge (Rooms 605 & 606), Graduate School of Humanities & Sciences Building

Four female leaders who are active at company and research institute visited our program. The purpose of this meeting was to enhance students' knowledge and understanding about working outside university. After giving short introduction and presentation, each guest had information exchange talks with total thirteen students from the program. All students were highly motivated by this interactive contact with the active members. Regular exchange meetings are under planning to strengthen the relationship between industry and university.



Scenes from the presentations



Sharing opinions at the meeting

## 2 “Overcoming the Challenges to the Chemical Industry – the Lanxess Deutschland GmbH Example”

November 2, 2016  
Room 415, Faculty of Science Building 1

As an executive advisor of our graduate program, Mr. Luis López-Remón, vice president of Lanxess Devtschland GmbH - Germany, gave a lecture titled, “Overcoming the Challenges to the Chemical Industry - the Lanxess Example,” to students from Science departments.

Lanxess is a leading specialty chemicals company and is currently operating 54 production sites worldwide. Mr. López-Remón, the Head of Leather Business Unit, explained in a clear and humorous way how the company develops and manufactures chemical products sustainably. At a meeting with students after his lecture, he advised them to study towards PhDs and do internships overseas to broaden their horizons.



Mr. Luis López-Remón

## 3 Visit to Vietnam and Thailand

We carried out promotional activities in sci-tech universities in Vietnam and Thailand.

Vietnam – August 23-24, 2016  
Ho Chi Minh University of Technology  
Vietnam National University, Ho Chi Minh City  
University of Science

We visited Vietnam's Ho Chi Minh City to boost our networking with top ranked technology-related universities. We held a presentation of our program and informed Vietnamese students about the appealing advantages of studying in Japan.

Thailand – August 30, 2016  
Asian Institute of Technology (AIT)

AIT is one of Ochanomizu University's partner institutions and its international students account for approximately 70% of its student population, English being the official language at AIT. We discussed collaboration possibilities with representatives of their International Affairs office.



At Ho Chi Minh City University of Science



AIT campus with its lush greenery

## 4 Overseas promotional activity in United Arab Emirates (UAE) with Japan International Cooperation Center (JICE)

23 to 29 October 2016  
Abu Dhabi, United Arab Emirates (UAE)

Under the auspice of JICE, lecturer R. Yamamoto Ravenor represented Ochanomizu University and its Program for Leading Graduate Schools at NAJAH - UAE's leading higher education event in Abu Dhabi, and at the American University of Sharjah (AUS). At NAJAH, hundreds of visitors (22 nationalities) stopped at our booth throughout the 3 days. Being the only women's university represented at this fair, Ochanomizu Univ. drew a large audience especially in the second day, which was open to female visitors only. Follow up inquiries followed soon after the NAJAH event and the presentation at AUS, along with positive feedback from organizers and participants.



Meeting with JICE alumni



At NAJAH

## 5 Program for Leading Graduate Schools Forum 2016

November 11 – 12, 2016  
Hilton Tokyo Odaiba

The Program for Leading Graduate Schools Forum 2016 attracted people from the total of 62 Leading Programs. Posters introducing the programs of each university were put up as a way to provide the universities with a chance to meet with companies wishing to hire graduates with doctoral degrees. Our university welcomed many visitors, attracted to our area by the posters created by our students. We particularly received attention from companies who are actively seeking to hire women with doctorates, and our students made spirited efforts to discuss and introduce the activities conducted by our Leading program and the various PBTS topics, as well as the research topics of their majors.



## Special Practice in Global Science & Technology

The Program for Leading Graduate Schools, which aims to develop global leaders in the field of science and technology, offers as part of its coursework the Special Practice in Global Science & Technology on an annual basis. This special practical course gives students the opportunity to conduct laboratory work using advanced equipment in a variety of fields, and aims to broaden their academic outlook. In the 2017 academic year, four courses on physics, chemistry, human environment, and food and nutrition were offered between August and September. Students actively participated in fields outside their area of specialization and were able to broaden their perspectives through studies using advanced equipment in different fields.

(15 classes of 90 minutes each per course)



Physics Course

- Special Practice in Global Science & Technology II (Physics Course) : August. 29, 30, 31, September. 2, 5
- Special Practice in Global Science & Technology III (Chemistry Course) : August. 2, 3, 4, 8, 9,
- Special Practice in Global Science & Technology V (Food and Nutrition Sciences Course) : September. 12, 13, 14, 15
- Special Practice in Global Science & Technology VI (Human Environment Sciences Course) : August. 1, 2, 3, 8



Food and Nutrition Sciences Course



Chemistry Course

### Introducing our New Students /



#### NGUYEN Thi Doan Trang

Course: Human-Environmental Sciences Division of Life Science  
Home country: Vietnam  
Hobby: Yoga



I come from Ho Chi Minh City – a City in the South of Vietnam with sunshine all year round. I decided to pause my career as a lecturer at Ho Chi Minh City University of Natural Resources and Environment for higher education in Japan from Fall 2016. I have been specializing in environmental management for over seven years since the day I accomplished my Master of Science degree (2009). Conducting a number of projects on this discipline as well as giving the lectures on the same field led me to the strong interests in environmental – human interaction science which is my major course now. About the PBTS which highlights the Leading program in Ocha-dai, so far I keep questioning myself how I contribute to the team as the only member working in Environmental Science. It is quite challenging and exciting! Our team members are different in majors and experiences in term of cultures and languages, but we do have the same desire in doing the research addressing two global issues nowadays including human health-food security and environmental protection. Therefore, I believe we have a good foundation for our PBTS to be proceeded while we are willing to collaborate aiming to the common target of the project.

## Introduction of the counseling function of the Leading Graduate school promotion Center

The counselling office at the Leading Graduate School has started in January 2016 and aims to provide supports for students to have effective and fulfilled academic years at this school. Counsellors are available to discuss your concerns and unexpected difficulties you face in the course of study for major and minor subjects, and to give you advice to pursue the academic achievements. The service is available in both English and Japanese.

### Student counseling Office

Location: Graduate School of Humanities and Sciences Building (Room 503)

### Counseling staff



Chieko Kibe

I am from Sendai, a mother of two. My main research interests lie in the field of developmental psychopathology, investigating risk and resilience factors forming individual psychological adjustment. After completion of my undergraduate study in Education, I studied Arabic Language at Cairo American University in Egypt, then Applied Psychology in University of East London in the U.K. My living experiences in several Middle Eastern countries (Lebanon, Egypt, Bahrain, and Iran) and the U.K. have cultivated my down to earth appreciation toward different cultures and societies, which embrace both human commonality and individual uniqueness. As a counselor at the program for Leading Graduate school, I would like to support the future leaders to optimize their learning from psychological perspectives utilizing my personal as well as professional backgrounds. "Be Just and Fear Not."



Setsuko Takahashi

My academic interest is in the human-environment transactions, especially how the physical environment would impact on human behaviors and thoughts (Ph.D., 2014). I believe that any subjects related to human beings should be studied from diverse fields, so that I continue to put my efforts to widen my expertise in the areas such as architecture, urban sociology, and environmental psychology. Project Based Team Study, PBTS, is a unique program for Leading Graduate School, which allows students from different fields to engage in specific research tasks together. By utilizing my research experience and knowledge built in my academic career, I am happy to support students in PBTS to study in this school while they continue to pursue their major subjects.

## Student's Report

### Kirin Yokohama beer factory tour

October 14, 2016  
Namamugi Tsurumi-ku, Yokohama city Kanagawa  
Nanami Kawaguchi, Kaori Nishida, Kurumi Yoshimura  
Professor Masahiro Otaki, Dr. Gary Richards, Dr. Edward Foley

We visited the wastewater treatment facility of Kirin Yokohama Brewery as a part of our PBTS activities. Four engineers of the company welcomed us and kindly explained the design and operation of their wastewater treatment system in detail. After the presentation and information exchange, we made a plant tour to the facility with hard hats and work jacket (see photo). It was really a good opportunity for us to know the size and efficiency of an actual wastewater treatment system and how it is operated cost-effectively.



Reported by Nanami Kawaguchi

## ■ Information on selection examination April term

### Selection process for Academic Year 2017 April

Information session for prospective students : December 21, 2016, January 18, 2017

Application: February 6-17, 2017

Selection examination: February 22, 2017

Acceptance announcements: February 28, 2017 (on the website)

Please visit the website for more details: <http://leading.dc.ocha.ac.jp/scitech/>

## ■ Activities

October 21, 2016	Hosted the “Discussions Between Students and Leading Program members from outside the university”
October 25-27, 2016	NAJAH - UAE’s leading higher education events (Abu Dhabi)
November 2, 2016	Special Lecture by Mr. Luis Lopez-Rejon, Lanxess
November 11-12, 2016	Forum 2016, Program for Leading Graduate Schools
November 16, 2016	Hosted the “Work in Progress for Post-Doctorate Students”
November 2, 2016	Special Lectures in Global Science & Technology I
December 14, 2016	1st Report on Global Internship, 2016
December 21, 2016	Seminar on Career Development, Information session for prospective students for Academic Year 2017 April

## ■ Scheduled activities

January 4, 2017-March 31, 2017	mQE (middle Qualifying Examination)
January 13, 2017	2nd Report on Global Internship, 2016
January 18, 2017	Information session for prospective students for Academic Year 2017 April.
February 22, 2017	Selection examination for Academic Year 2017 April (iQE)
March 7, 2017	International Symposium: Corporate Expectations for Women PhDs
March 15, 2017	pQE (periodic Qualifying Examination)

## ■ Global Internship I & II in Fy 2016

### Global Internship I

September, 2016-December, 2016	Lanxess AG (GmbH)
December, 2016-April, 2017	Tokyo university (Japan)

### Global Internship II

August, 2016-February, 2017	Riken, Kobe Branch (Kobe, Japan)
August, 2016-February, 2017	Tokyo Engineering Consultants Co., Ltd. (Tokyo, Japan)
September, 2016-December, 2016	Northeastern University (United States)
October, 2016-December, 2016	Ministry of Education, Culture, Sports, Science and Technology (Tokyo, Japan)
November, 2016-January, 2017	Toray Industries, Inc. (Kamakura, Japan)
November, 2016-May, 2017	Laboratory of Subatomic Physics & Cosmology, Grenoble (France)

## Editor’s notes

Participating the Global Internship, students will not only gain unique experience through on-site practical work but, particularly with regard to internships outside Japan and they will gain invaluable experience by dealing with situations and environments unlike those found at home. Hopefully they will make use of such experiences and make tremendous strides to advance their potential.

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