

【特別寄稿】 Undergraduate Medical Science Course in Tsukuba 2016

Faculty of Medicine, University of Tsukuba

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From February 29th to March 6th 2016 the School of Medical Sciences hosted the 2nd Undergraduate Science Course in Tsukuba. This year we invited a total of ten students and two faculty members from some of our partner universities in Indonesia and Vietnam and one high school student from Tsukuba.

Participating Faculty and Students: University of Indonesia, Indonesia (5 students); Udayana University, Indonesia (1 student); University of Science HCMC, Vietnam (2 students); University of Medicine and Pharmacy HCMC, Vietnam (2 students); Meikei High School, Tsukuba (1 student); Dr. Hoang Anh Vu (University of Medicine and Pharmacy HCMC) and Dr. Septelia Inawati Wanandi (University of Indonesia).

University of Tsukuba Medical Technology (11 students)

Organizer: Haruhiko Ninomiya, Osamu Ohneda, Emiko Noguchi, Koji Hisatake, Kazuya Morikawa, Kiong Ho, Thomas Mayers, Kayoko Morishita, and Koji Hirawada.

This program was supported by the Japan-Asia Youth Exchange Program in Science (Sakura Science Plan), Japan Society and Technology (JST).

URL: <http://ssp.jst.go.jp/EN/index.html>



The 11 visiting students paired with 11 undergraduate medical science students from the University of Tsukuba. Each pair was placed in a laboratory to carry out experiments and experience research in a variety of fields of medical science, including bacteriology, immunology, physiological chemistry and medical physics.

Course Schedule

【 DAY 1 】	AM	Arrival	Narita and Haneda
2/29	PM	Introduction, Orientation and Faculty -Student Meeting	Medical Sciences Building
【 DAY 2 】	AM	Lectures and Laboratory Activities	Assigned Lab
3/1	PM	Laboratory Activities	Assigned Lab
【 DAY 3 】	AM	Lectures and Laboratory Activities	Assigned Lab
3/2	PM	Research Institute in Tsukuba (JAXA, NIMS)	Tsukuba City
【 DAY 4 】	AM	Tokyo Tour	Tokyo
3/3	PM	Science Museum Tour in Tokyo	Tokyo
【 DAY 5 】	AM	Laboratory Activities	Assigned Lab
3/4	PM	Laboratory Activities	Assigned Lab
【 DAY 6 】	AM	Faculty and Student Meeting	Medical Sciences Building
3/5	PM	Presentation	Medical Sciences Building
【 DAY 7 】	AM	Departure	Tsukuba Center
3/6	PM	Narita Airport	

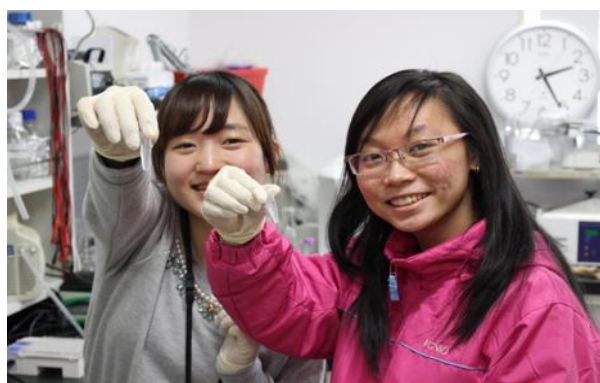
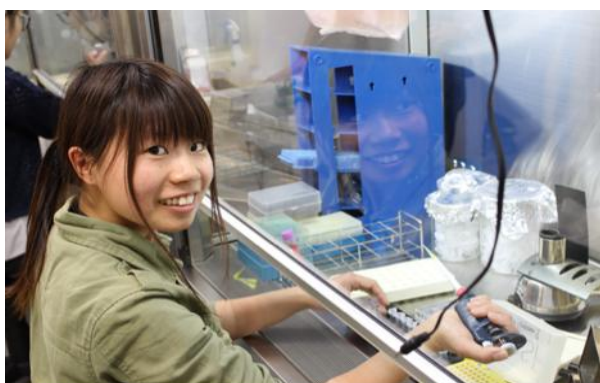


Lectures about Vietnam and Indonesia: learning about culture, research, and education at our partner universities. Orientation and introduction to the course with Professor Ninomiya, Professor Inawati, and Professor Vu, meeting new friends, and enjoying *kaiten-zushi*. The participants enjoyed learning about each other's culture and school life, through lectures given by students and faculty about their respective counties and universities.

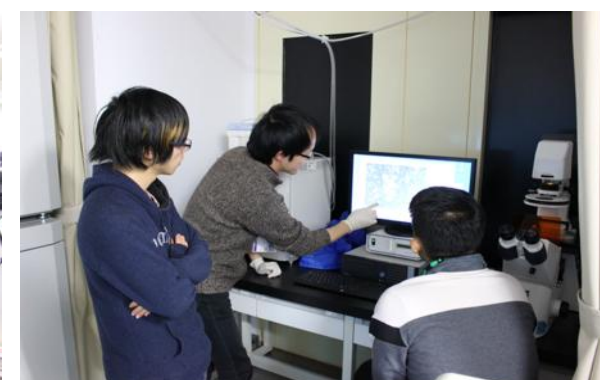
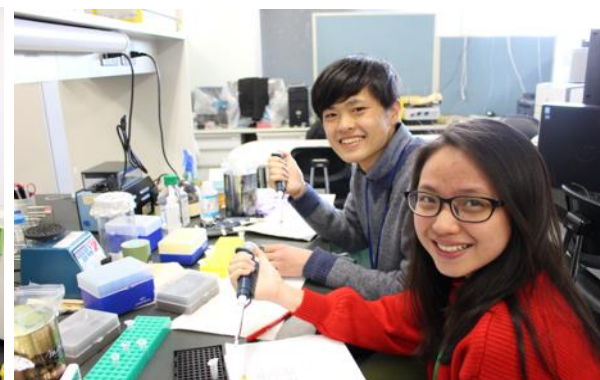


Laboratory	PI	Topic	Visiting student	Tsukuba student
Immunology	Akira SHIBUYA, Kazuko SHIBUYA	Analysis of immunoreceptor involved in immune disease	Euginia Christa	Rikito MURATA
Molecular virology	Atsushi KAWAGUCHI	Molecular mechanism of influenza virus replication	Jennifer Nathania	Miwa MIYAO
Experimental pathology	Mitsuyasu KATO	GPNMB in cancer stem cells	Teresa Wulandari	Yumu ICHIKAWA
Medical genetics	Emiko NOGUCHI	Learning basics of genotyping	Jevi Septyani Latief	Shinya NAKATA
Bacteriology	Kazuya MORIKAWA	Antibiotics resistance in pathogenic bacteria	Komang Leo Krisnahari	Mayuko KADOYA
Molecular parasitology	Kiong HO	Molecular Parsitology	Tran Thi Hong Diep	Hina KOBORI
Regenerative medicine and Stem cell biology	Osamu OHNEDA	Regenerative medicine and Stem cell biology	Yuri TERUNUMA	Yuko SASAJIMA
Biochemistry	Koji HISATAKE	Regulation of gene expression during adipocyte differentiation and iPSC generation	Muhammad Khifzhon Azwar	Yuya SEKIGUCHI
Physiological chemistry	Yasunori KANAHO, Yuji FUNAKOSHI	Regulation of intracellular trafficking of plasma membrane proteins through ubiquitination.	Nguyen Pham Anh Thu	Minori FUJINO
Medical physics	Takeji SAKAE, Tomonori ISOBE	Radiation physics	Ly Ky Nhu	Nanako MURAKAMI
Internal Medicine (Endocrinology and Metabolism)	Hitoshi SHIMANO, Yoshimi NAKAGAWA	Molecular biology of Metabolic syndrome	Nguyen Thi Hoai Thuong	Taisei HOZUMI





Carrying out research and experiments in various laboratories, learning the science and experimental techniques, and making friends along the way.



Comments from the participants:

I still remember how patiently I was taught to use equipment that I have never used before and the guidance I received in every step of the experiments. During a day in the lab, we worked together, had lunch and dinner together, discussed and solved the problems together... I was so impressed by my professor's kind words that I think about them until now. Hopefully, in near future, I can get a scholarship and go back there.

- Nguyen Thi Hoai Thuong -

I was given the opportunity to do a hands-on experiment, explored the lab and all the equipment there, and also to make a presentation about my research ... Overall, it was a very joyful experience and I would love to come back to the University of Tsukuba to continue my postgraduate studies in research upon completion of my medical degree and finally build a bridge between the University of Indonesia and their university.

- Teresa Wulandari -

This trip is an important step in my life. It is the best memory in my heart and also is my motivation to attempt greater things. Besides the knowledge I have learned, I also got a lot of lessons about life, and friendships. This course and the Japanese people will remain forever in my heart.

- Tran Thi Hong Diep -

I am grateful to my Sensei who has imparted many skills to me including cell culture, transfection, and luciferase measurement and also inspired me with his stories and passion for his work....The knowledge, skills and experiences I have gained will help me to have the upper hand when I pursue my masters of research.

- Jennifer Nathania -

This program is actually the best encouragement I have ever had. Now, I feel more confident, more determined, and passionate on my chosen way. I appreciated every minute I stayed in Japan, appreciated the talent, the discipline, and the friendliness of Japanese people.

- Ky Nhu -

I really love the way people are working - they work with their enthusiasm. I saw that almost all professors work until midnight and I appreciate their devotion very much. I have learned many new things, not only knowledge but also about the life of Japanese people - the way people take care of each other and the friendship between lab members... I had thought that I would have to study very hard in the lab and would not have time to go anywhere, but in this program, I also had a chance to visit some famous places in Tsukuba: JAXA, NIMS... they are very modern and I have learned many things from these places.

- Nguyen Pham Anh Thu -



In the morning of the penultimate day, the participants had a lecture on how to give effective scientific presentations and in the afternoon they gave group presentations to introduce their research activities and experimental results.



The program included a visit to JAXA to see the various activities and achievements of the Japanese Space Exploration Agency, and also a visit to National Institute of Materials Science (NIMS), where we found out about how research into materials science and particularly nanotechnology is helping to shape the medical treatments of the future. The course also gave us the opportunity to introduce Japanese life and culture to our visitors from overseas through visits to Tokyo and Mt. Tsukuba.



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