

【特別寄稿】 Undergraduate Science Course in Tsukuba 2015

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ベトナム及びインドネシアからの招聘学生と医療科学類生 2 年生がペアを組み、10 組のペアがそれぞれ異なる研究室を訪問して、具体的な研究課題やその解決方法を学び、実際の研究を体験しました。期間中、つくば市内の高エネルギー研究所、宇宙航空開発機構を見学し、また東京の各所を巡るツアーも行いました。最終日にはペアが協力してプレゼンテーションを準備し、Brian 先生による指導を受け、発表を行いました。

招聘者：

インドネシア大学（医学 3 名、薬学 2 名）

ホーチミン医科薬科大学 2 名

ホーチミン市自然科学大学 3 名

引率教員として Dr. Nguyen Tri-Nhan, Dr. Amarila Malik

以上計 12 名。

医療科学類生（2 年生）10 名が参加しました。受け入れ研究室と学生ペアは以下のとおり。

受け入れ研究室	招聘学生	医療科学類生	
1 Immunology	Akira SHIBUYA	Nguyen Tran Thanh Truc	Kanako IWATA
2 Molecular virology	Atsushi KAWAGUCHI	Vo Nguyen Dan Linh	Minagi UCHIDA
3 Experimental pathology	Mitsuyasu KATO	Huynh Dam Kim Tuyen	Ami NIWANO
4 Medical genetics	Emiko NOGUCHI	Ratu Adinda Azzahra	Ruyi ZHOU
5 Bacteriology	Kazuya MORIKAWA	Yuliantie Elita	Mamiko MIZUNO
6 Molecular parasitology	Kiong HO	Ho Quang Tri Vien	Choe Jiwon
7 Regenerative medicine and Stem cell biology	Osamu OHNEDA	Matthew Billy	Saki IMAIZUMI
8 Biochemistry	Koji HISATAKE	Kartika Anastasia Kosasih	Yuka IWAHASHI
9 Physiological chemistry	Yasunori KANAHO, Yuji FUNAKOSHI	Duong Nguyen Anh Ngoc	Eri TANAKA
10 Medical physics	Takeji SAKAE, Tomonori ISOBE	Fedy Fariska Savira	Nanako YUINE

実施： 本コースは、JST 日本・アジア青少年サイエンス交流事業（さくらサイエンスプラン）（A. 科学技術交流活動コース）（E20140717011）として筑波大学医療科学類において開催されました。

医療科学類

二宮治彦（実施主担当）

大根田修

野口恵美子

久武幸司

渋谷和子

森川一也

Kiong Ho

池田英樹

さくらサイエンスプラン

<http://ssp.jst.go.jp/>

スケジュール

Undergraduate Science Course in Tsukuba 2015 (2nd Mar 2015 - 8th Mar 2015)

2nd Mar (Mon)	AM	arrival	4B104
	AM12:00	meeting with partner student, lunch	
	PM13:00	orientation, PC virus check, Introduction about Medical Science, University of Tsukuba	4B104
	PM14:00 PM16:00	meeting with faculty member check in 'Daigaku-kaikan' hotel	
3rd Mar (Tue)	AM10:00	lecture, + Introduction about Vietnam	4B119
	AM11:00	Laboratory	Lab
	PM18:00	laboratory dinner with partner or group hotel	Lab
4th Mar (Wed)	AM10:00	laboratory	Lab
	PM12:30 PM13:00 PM15:20 PM18:00	Visiting Research institutions in Tsukuba KEK (High energy accelerator research organization) JAXA (Japan aerospace exploration agency) arrival at Daigakukaikan hotel	Tsukuba city
	AM10:00	lecture,+ Introduction about Indonesia	4B119
	AM11:00	Laboratory	Lab
5th Mar (Thu)	PM	laboratory	Lab
	PM18:00	dinner with partner or group hotel	
	AM	Tokyo city tour (detail TBA)	Tokyo
6th Mar (Fri)	PM		Tokyo
	7th Mar (Sat)	AM10:00	preparation for presentation personal meeting with faculty
PM15:00		short presentation by students 10min ×10	4A483
PM17:00		farewell event planed by students	4A483
PM19:00		hotel	
8th Mar (Sun)	AM	TBD by participants	
	PM	departure	Narita

【Orientation】

パートナーと一緒に医学食堂でランチを取った後、オリエンテーションを行いました。



学類長・二宮先生からご挨拶と医療科学類の紹介がありました。

左：Dr. Nguyen Tri-Nhan（ベトナム）。右：Dr. Amarila Malik（インドネシア）。お二人は引率教員として参加されました。



【Lecture】



朝のレクチャーでは、それぞれの国の文化や、大学の紹介もしていただきました。引率の先生のはからいで、招聘学生も自分の学部についてプレゼンテーションを行いましたので、2回とも予定時間を少しオーバーしてしまいましたが、盛りだくさんの内容でした。各学生がどのようなバックグラウンドで、どのような興味を持って将来を考えているかがよくわかる内容でした。

【Laboratory】

研究体験は3日間にわたって、各研究室で行いました。



【Extra】 相互訪問



前週のInternational Medical Science Course (in Indonesia)に参加していた橋本さん、向井さん、米澤君らも機会をみつけて合流しました。また、同コース参加者の周さん、水野さんは、こちらの受け入れコースにも参加しており、インドネシア友人との交流を深めました。

【Visiting Research Institutions in Tsukuba】

以下の2カ所の研究施設を見学しました。



KEK (高エネルギー研究所)

動画で概要を学んだ後、広大な敷地をバスで廻りました。研究者の先生方が医学・生命科学に関連した話題を多めに説明してくださいました。



JAXA (宇宙航空研究開発機構)

宇宙飛行士訓練棟にて、宇宙飛行士の健康管理に関して説明を受けました。写真は常設展示のスペースドームにて。

【Cultural Activity in Tokyo】

東京を訪問しました。参加者からの感想を掲載します。



“For the Tokyo Trip, the highlight for me, other than seeing the main parts of Tokyo, was learning more about Japan itself; like how Japanese government and the hierarchy in the country works, religious beliefs, character of Japanese people and many other things. It might sound corny, but I’ve always liked Japan since I was always exposed to Japanese-related content (manga, anime, J-pop and so on). It was already very dream-like for me to actually be there and enjoy a little bit of the Japanese culture (food, daily life etc.) and learn within the education system (as part of the course) – I’m seriously beyond thankful.” (by Feby)

“The Tokyo trip was even more interesting. I really got the scent of how Tokyo was in the past, during the visit to the Sensuji Temple in Asakusa. It was weekday (Friday), but there were a lot of people there. And the buildings were very traditional, they also sold many traditional food, the best one was manju and ginkyoyaki. On the other side, Tokyo was very modern with the pop culture going on in Harajuku, especially. While Tokyo itself was very busy, crowded, and quite different from Tsukuba. I love it since Tokyo was very dynamic.” (by Ratu)



【Preparation for Presentation】

発表の準備はパートナーと協力して行いました。実際に指導にあたった先生や大学院生も準備を助けてくれました。併行して個別発表指導、招聘学生との個別面談を行いました。



【Final Presentation】

自分たちが学び体験した研究課題や方法について、各ペアが発表しました。



Duong Nguyen Anh Ngoc

I would say the course was way beyond my expectations.

I had chances to be in a great laboratory, but not just learning, I actually did the experiment myself. My sensei, Professor Assistant Funakoshi, first taught us the theory; then he taught us how to do the experiment step by step. He was really nice, helpful, and patient. Then, I was trained to do a scientific presentation in professional way. We had been taught the skill to present, the exact words to use in presentation. We had been rehearsed and advised. All of that experience, to me, was precious.

Participating the course, I also had opportunities to visit many great places in Tsukuba and Tokyo. Although the time was really limited, we only had few hours to visit JAXA and KEK, a day to visit Tokyo, it was a great trip to me. I was attracted to the process of choosing and training an astronaut. I was impressed by those constructions in Tokyo, the mixing between modern and ancient. I was fond of the great scene at Tokyo Royal Palace, the Sensoji Temple... I had a lot memory with my friends, especially my partner Eri in that gorgeous entertaining time.

Last but not least, the people I met in the course were awesome. From professors to students, from Japanese to Indonesian, they were hospitality, lovely, and funny. We all effaced the barrier of languages and created a great relationship. They helped me to see myself from a different angle, an energetic spirit who was eager to learn new things, to make friends.

The course provided participants chances not only to learn but also to experience. At first, I just hoped that through the course, I would have chances to be involved in such modern study atmosphere, to know how it is when studying abroad, to experience different culture. However, what I have received from the trip is much more than that. This is an extraordinary experience that I can never forget.



Feby Fariska Savir

I am currently having endless thoughts whether I should be a clinician or researcher. I really thought for sure that I want to be a clinician, but life as a researcher (from what I see during my time in Japan) is definitely more vast than I initially thought and there's actually so much things I can do if I do decide to become one.

Firstly I would like to praise the overall organization of the course. I think it was well planned and every activity was given the appropriate amount of time to run smoothly. Within the course, I enjoyed being in my laboratory and also the company from friends within the course itself as well as the ones I got to know from the laboratory I worked in. I was mesmerized with the facilities (especially in Medical Physics aspect) that *daigaku byoin* has – it was stunning. I got to see the proton therapy machine, brachytherapy, x-ray, hyperthermia treatment room, radiation biology research facilities and many others. I was so thrilled to expand my knowledge there, as they were things I don't think I can find so much about in my country. I also liked eating out with all the professors and my friends, trying out delicious food around Tsukuba. All in all, the vibe was really dynamic in Japan. The way people were so clean with their trash, how I was greeted in restaurants and markets – it was like seeing all the things I've seen in anime or read in manga come to reality. I loved every single moment of it all!!

(extracted from original comment)



Vo Nguyen Dan Linh

The trip to Tsukuba University has given me unforgettable memories. I did some experiments in Kawaguchi sensei's laboratory and learnt quiet a lot. Kawaguchi sensei is really kind to us. He patiently explained the difficult materials of the experiments and helped us a lot with our presentation, he also treated us with delicious traditional Japanese food. Thanks to his considerate teaching, I learnt a lot about Virology Biology and were able to give the presentation confidently.

After the lab's work, I realized that I really like the scientific environment and doing research gives me the satisfaction of both helping people and exploring the world. Because of that, I want to be a researcher in the future and Tsukuba University is one of my major choice for my further study.

I was really touched by Japanese student's hospitality and kindness. They were so nice and we had beautiful memories together. I will never forget the times we spent together, it felt as if there were no border between different nationalities and languages at all and in my memory, Japanese people are so nice and friendly.

(extracted from original comment)



研究体験、友人との繋がり、日本文化、について、とてもよい経験ができたという、これらと同様なコメントが多数寄せられました。

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