

Ghanaian Herbal Medicine Project

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Ayekoo~(アヨコ~: good job!). It is absolutely HOT in Ghana these days. On the other hand, the spring has come in Japan. They are having the most beautiful time with blooming sakura (さくら, that is cherry blossom). The cherry blossoms are in full bloom only for a few days. When the cherry blossoms are at their height, people get together under the cherry blossoms in the park and enjoy not only viewing the blossoms but also eating and drinking.



The season of SAKURA (cherry blossom)

This is the second edition of the project newsletter!! We are bringing you a series of voices from young scientists from NMIMR. In this letter, Mr. Kwofie in Parasitology and Miss Minta-Asare in Virology are sharing their stories and research experiences in Japan. In addition, Prof. Nyarko, the Director of NMIMR has kindly sent a message for our newsletter. We hope you enjoy reading our newsletter! If you have any comments, please contact us. Thank you!



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Editors

It is a real pleasure to note that the collaborative project involving the Noguchi Memorial Institute for Medical Research (NMIMR), Tokyo Medical and Dental University (TMDU), Nagasaki International University (NIU) and Centre for Scientific Research into Plant Medicine (CSRPM) that commenced in 2010 has generated much enthusiasm among our young research scientists. It is a pleasure to feel the energy and the motivation with which they approach their responsibilities, trying to contribute their quota to finding new treatment agents for use against infectious diseases that



plague us in Ghana and the rest of the world. These young scientists are the future of this Institute, Ghana and the world. As we congratulate them, I wish to express my gratitude first to JICA/JST and Japan for sponsoring the project. I also thank all our Japanese colleagues and friends, especially Mr. Okaya, for arranging to have the young scientists to visit Japan. This has not only facilitated technology transfer but created a high sense of interest in the project. I want say a special thank you to all our other Japanese colleagues at TMDU and NIU who have hosted and trained the group while they were in Japan.

Finally, it is wonderful to have this newsletter as part of the program because it will help to facilitate networking and exchange of information among all involved. *Akwaaba!*

Prof. Alexander K. Nyarko

Director of NMIMR



THE NIHON EXPERIENCE by Kofi Kwofie Parasitology Dept. in NMIMR



“Life is a gift, and it offers us the privilege, opportunity, and responsibility to give something back by becoming more”.

These words of Anthony Robbins were the first to come to mind when we were told that we got the opportunity to visit Japan. For me, it was a “dream come true”. It was a feeling of exhilaration. It was an experience I had always desired as a young and upcoming Research Scientist, knowing that international experiences and exposures would surely add on some virtues and boost up my confidence as a young

research scientist. It was really a long flight but finally I got to Japan.

To say the temperature was cold would be an understatement; it was freezing cold. That notwithstanding, I really had a warm reception when I got to the arrival hall to find Ohta sensei himself waving the Ghanaian flag at me, I felt so much at home and relaxed. I was very delighted at the way I was welcomed to the TMDU Parasitology Laboratory, which has Ohta sensei as



its head. Everyone was so excited to see me and made sure I felt very comfortable. “Yokoso” means welcome. Almost everyone I met said that to me. One thing Mitsuko sensei had told me that kept on ringing in my mind was that “this is not just a voyage to Japan but a voyage to your future”. These words indeed kept me focused and motivated. I used the slightest opportunity to improve upon my skills and learn new techniques. I mainly ran some bioassays on Ghanaian fractionated samples and even purified one, which have been sent from NIU. During this period, Tokiwa-san taught me to more focus on the stages involved in the growth cycle of the trypanosome parasites. I appreciated this more when I plotted the growth curve with the cell concentration values I obtained each day after counting the cells from their passage day to when they had all died. With this experiment, I deeply understood the timing to use the parasites for the bioassays to obtain reproducible results; as the condition of the parasites directly affects the outcome of the bioassays.

I also had the opportunity to learn the LAMP method for amplifying DNA. I was privileged to sit in the



Parasitology lab training for Japanese Medical students at TMDU organised by the lab. It gave me the opportunity to interact with TMDU students, who proved to be very friendly as well. The laboratory environment, one thing that thrilled me very much was the sheer dedication and discipline with which the Japanese worked and their respect for time. This characteristic was not only peculiar to those in my laboratory but was a common phenomenon among Japanese. In the Parasitology Laboratory, everyone was always

willing to teach or help out whenever I approached them. I recall some wonderful memories with Tokiwa-san, Seki-san, Cutie-san, Francis-san, Shimogawara-sensei, Kumagai-sensei, Akao-sensei and other

friends from the TMDU virology Lab. One thing I also admired was the manner with which they conducted their weekly departmental and journal meetings.



Mr Shig Okaya, the director of SATREPS invited me and Keren to the Japanese Science and Technology Agency (JST) headquarters. We were accompanied by Yamaoka sensei and some Japanese students in TMDU. We were privileged to

meet the Programs Director of JST, Prof. Yakushiji, who really inspired us and left us with something to reflect upon as young and upcoming research scientists. I came to really appreciate the importance of collaborative research. Throughout my interactions with most Japanese I came across, I observed certain vital traits, some of which are, loyalty veracity, bravery, politeness and honour. Upon further enquiries, I came to understand that these traits have their roots from the character of ancient Japanese warriors. I want to express my heartfelt gratitude to all who made my stay in Tokyo a memorable one, especially, Prof Ohta and the rest of the staff in TMDU Parasitology lab, not forgetting, Prof Yakushiji and the entire staff of JST.

Your Memories will forever be with me. I also want to appreciate everyone who made this trip possible; Mr. Shig Okaya, JICA, Director of NMIMR, Prof. Nyarko, Yamaoka-Sensei, Mitsuko-Sensei and Kashihara-San. Thank you all for your various encouragements and support in diverse ways. To you all, I say DOOMU ARIGATOU GOZAIMASHTA !

LONG LIVE SATREPS and LONG LIVE GHANA-JAPAN COLLABORATION!!!

Kofi Dadzie Kwofie

Parasitology Dept- NMIMR



MY EXPERIENCES IN TOKYO by Keren Minta-Asarein Virology Dept. NMIMR

Understanding the mysteries of life is one thing that urges me on as an up-and-coming research scientist. It has always been my vision to improve upon my techniques and experiences as well as the knowledge I have acquired by being exposed to an advanced technology country such as Japan. Thus, on hearing the news, that I was being given the opportunity to travel to Japan for a three week training, I was thrilled. Having heard so



much of the Tokyo Medical and Dental University, increased my excitement. Upon arrival in Japan, the airport attendants gave me a very good impression of the Japanese. I was picked up from the airport to the TMDU by a student from TMDU, namely, Miss Ayumi Wakutsu. Through the good teaching skills of my mentors Takanori-san, Onai-san and Yuki-san, I was able to polish my skills in cell maintenance where after passage the plate containing the cells are pivot wobbled to evenly distribute the cells and prevent overcrowding of cells at a point which could reduce their growth. I also learnt about molecular biology skill, such as plasmid purification, enzymatic digestion, Western blotting and infection of cells with recombinant virus where I had the opportunity to observe CPE in the cells which had been infected with the recombinant virus. I also polished my skills in dual luciferase assay as well as improved on my understanding of the mechanisms taking place within the infected cells – this is accredited to Yamaoka-sensei. I also participated in the Tuesday journal club and was amazed at how papers were critically analyzed and the springing up of ideas.



I loved how everyone was dedicated to the work they do, keeping records of everything done and sharing of ideas between the young researchers and the professors as well as the associate professors. The people in the lab were all friendly and made my stay a lovely one. I felt privileged to have people like them around me. Apart from all these scientific exposures, I was very much impressed with the discipline and trust of the Japanese people in their transportation system. The people are disciplined to the extent that they cross only at designated areas and are willing to wait for the walk traffic to turn green even when there were no cars in sight.

What I really miss is the fact that there was not a single day when the lights went off!!!

The Japanese also care about the welfare of others such that when one has influenza they always ensure to have a nose mask on in public. The public education system was always up to date on the various circulating diseases so people can protect themselves as well as their weather information also being very accurate, enabling one to plan their day. Though the weather was pretty much cold, it did not keep me indoors. I really loved my visit to Shibuya, a town where a lot of young people gather to have fun especially on Friday evenings. One day, I participated in an annual



festival held at TMDU to celebrate the New Year where we were taught about the history and preparation of Japanese rice cake known as MOCHI.

*I had the occasion to visit the JST headquarters with other students of TMDU on the invitation of Mr. Shig Okaya– here; we were introduced to the president of SATREPS Prof. Yakushiji, who briefed us on the history and purpose of the SATREPS project. We were then invited to join their New Year party which gave us the chance to mingle with a lot of people. I really had fun. A big thank you to all who made my stay in Japan, a trip to remember – Matsui-san, Ohta-sensei, Yamaoka-sensei, Haori-sensei, Takanori-san, Ayumi-san, Yuki-san, saori-san Onai-san, Osako-san. I also say a big thank you to the lab as a whole for the tea party that was held in my honor as a visiting research scientist. It is really appreciated. Finally to everyone who made this opportunity to come to pass, Mr. Shig Okaya' efforts, funding agencies such as SATREPS and JST, not forgetting my PI's, Head of Virology Department and the Director of NMIMR for their approval and making me have this lovely and unforgettable experience. Last but not the least, my profound appreciation goes to Mr. Sakae Kashihara and Dr. Mitsko Suzuki who helped and guided me towards my preparation for this trip. **“ARIGATOU gonzaimasu” to all.***

Keren Minta-Asare
Virology Department
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