

環境科学同窓会通信 第4号

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「環境科学院で培った考え方で、社会に貢献する」

近藤 広隆（積水化成品工業株式会社）

学士課程において、木材のプラスチック化の研究をしていたこともあり、エネルギー貯蔵や種々の生理作用に関わる多糖類に興味を持っていたため、環境科学院に進学しました。

修士課程に在籍していた2年間、ワクチン等への応用が期待されている、細菌の一部を構成する天然化合物の合成研究を行っていました。“合成したものを原料に、次の合成をする繰り返しの中、途中で失敗して振り出しに戻ること”や“反応や分離作業が順調に進まず、終電を逃して泊まりになること”など苦い経験をした一方、有機合成をはじめとする専門知識を深め、かつ、チャレンジ精神を養うことができ、とても価値のある時間を過ごすことができました。また、院内で開催されたジンギスカンパーティーでの学生交流や、留学生と一緒にいった海外旅行もいい思い出です。指導教員の坂入先生、環境科学院の皆様には大変お世話になりました。

現在は民間企業で、プラスチック発泡体の研究開発に携わっています。発泡体は大部分が空気で構成され、高リサイクル率で環境に優しい素材、という点に魅力を感じたためです。大学院では、多くの専門分野に触れる機会があり、環境視点で考えることを知ることができました。それは、どのように使用されるか？その後はどうなるのか？生態系への影響は？など、単にものをつくるだけではなく、広い視野で考えることです。この考え方を大切に、プラスチック素材の力で社会に貢献できるよう、邁進していきたいと思っております。



ジンギスカンパーティー風景（2012年）

以上

<<Asmaa's Memories in Sapporo>>

Four years have passed quickly since I joined Hokkaido University. I was enrolled in the Laboratory of Bio-materials Chemistry as a master student in Graduate School of Environmental Science, under supervision of Prof. Nobuo Sakairi. Although it was a kind of challenging journey, it was really interesting to me. It was my first time to travel abroad and visit Japan. My first impression when I arrived in Japan was that the super helpful Japanese airline. In addition, cities were clean, comfortable, and the public transportation was convenient. It was very cold and snowy as well. Even I know that Sapporo is colder than Egypt, it was more than what I was expected. Thus, I got a kind of "culture shock".

However, I was lucky to join Sakairi-sensei's lab. He was dealing with me typically like his daughter, and I felt that very well in many things. As he knew that I am Muslim, he showed me a "prayer room" from the first day of my coming to the lab. Moreover, he was usually asking the lab-members about me especially when I was pregnant.

My thesis was entitled "A synthetic glycoconjugates approach on LPS O-antigen of *Pandora pulmonicola*". This polysaccharide has a trisaccharide repeating group, which contains unusual highly modified quinovosamine (3-amino-3,6-dideoxy-D-glucose) residue. I developed efficient synthetic route to the quinovosamine derivative from D-glucose. I also carried out selective modification of the amino group to introduce a pyroglutamic acid derivative. I had abilities to carry out organic synthesis of complex molecule such as conducting reactions, isolation of products, and structure determination by NMR and IR spectroscopy. During my research, I won Hokkaido University scholarship for international students and HIECC scholarship. Although I worked in lab for long hours daily, I had never felt bored or tired. I still remembered all events in-and/or outside campus and PQ parties which I participated in. Sakairi-sensei taught me the basic principles of research and scientifically guided me during my study. He encouraged me without hesitation to participate in conferences with oversea and Japanese students to represent my data. I always remember his kindness. Such an environment would definitely make very good interactions for me on a daily basis for enjoying and improving my research. In a reality, Sakairi sensei is a very good professor in both social and academic sides.

The surrounding environment in Sapporo was super attractive with very beautiful trees colors. I was so interested to notice the complete difference in seasons "summer, spring, autumn or winter". For the first time, I saw "sakura tree" and picked many photos with. Japanese in nature are so polite, lovely and helpful. Wherever in the streets, work, university lab., or markets, I found many Japanese volunteers were offering their help. They always encourage international students to study in Japan. When I came to Sapporo, I was pregnant. At that time, I started the challenges and adventures of future mother as well as a researcher. Every day I had a new interesting adventure with lab and family. However, it was so nice that Japanese government can accept kids of sixty days old to enter nurseries and let parents go their work without interruption. I cannot ignore the great help of Sapporo English Medical Interpreters (SEMI) with me until delivery of my baby and their following me up. In addition, the great help of Hokkaido University to give me a full exemption of tuition fees during my study. They always support and offer advices to the foreigners' families and put them in a suitable atmosphere for an excellent research. Therefore, Japanese always urged me to respect them. Although my Japanese language was poor, I liked to communicate with this language; like "ohayo", "arigato", "wakarimasu", "daijobu desu", "sumimasen" etc., and worked on these as some basic words within my Japanese friends in the lab. Japanese language helped me a lot for making friendship. I liked the culture of mutual respect of Japanese. I liked so much the Japanese food like "sushi", Japanese tea and seafood soap. For the first time, I wore Japanese "kimono" which made me happy. Also, I played Japanese baseball. In addition, I really miss my bike that I was riding there. Moreover, I visited Tokyo which was very impressive, and visited many places around Hokkaido like Tomita Farm, Blue Pond, Maruyama Zoo, Otaru Aquarium etc.

All in all; the life in Japan was not only interesting and safe but also was in a systemic manner based on restricted rules particularly in traffic laws and scientific research principles. I learned how to be self-dependent and creative. Together, that provided me with a unique experiences and I gained first-hand knowledge on how to designate paths and therefore to achieve my goal. My study visit to Japan was a key step to improve my current career plan by allowing me to take an active contribution and to be qualified enough to be a researcher in Egyptian university right now.

I conclude that Japanese people can do the impossible with their insistence and cooperation. In addition, my journey to Japan has a positive impact on my current career and life-style.

Sorry to hear about the news of typhoon and earthquake in Japan in September 2018. Japan is a favorite place to visit, make an interesting research and to live. My prayers, thoughts and hearts are with everyone who has been affected, for speedy recovery.

Honestly, I have a great hope to return back to Japan to meet Sakairi sensei and all my Japanese friends to only say "Thank you"!



Ms. Asmaa Elnagar, Egypt

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