

Advanced Research Scholar – Grants-related

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Field of Study:
Research Period
US University
US Professor
Research Title

Carbohydrate Chemistry
January – July 2017
University of Georgia
Dr. Parastoo Azadi
Purification and Characterization of Glycosaminoglycans-Hyaluronic Acid

Describe your research conducted in the US.

The purpose of my research at CCRC-UGA (Complex Carbohydrate Research Center-University of Georgia, Athens) is to purify and characterize glycosaminoglycans, specifically, hyaluronic acid. The final objective of our research project with the USAID-STRIDE program is to be able to commercialize the GAGs-HA extract for its incorporation as an active ingredient in nutraceuticals. For the extract to be considered for human consumption (as nutraceuticals), the structure of the GAGs needs to be elucidated to establish the relationship with its biological functions.

What was the highlight of your research in the US?

I succeeded in characterizing my GAGs-HA extract and also established its structure-function relationship. This is the highlight of my research in the US. Because of this milestone, we can guarantee that our GAGs-HA extract is safe for human consumption and may be incorporated in drug formulations with its known structure-function relationship, which is integral in pharmaceutical and cosmetics manufacturing industries.

In what way has the USAID scholarship changed you?

The research stint opportunity granted by the USAID scholarship had made me more knowledgeable in my field of research. At CCRC-UGA, I not only enriched my skills and increased my knowledge, but I also became a better person in dealing with other people in one workplace. Before, I was not the type who could work with other people, especially in the laboratory, but my US research stint made me realize it is better to work with a team. As researchers, we continuously discover many things around us. The exchange of ideas with other researchers is very important in the life of a researcher. We may not know everything, but through collaboration, we could learn more from one another.

How would you use the knowledge and skills gained through your research to contribute or influence economic growth in the country?

I will use the knowledge and skills that I have gained from my research in the US to understand the problems of the community, especially in Iloilo, which can be solved through scientific research. By interacting with the people in the communities, I will be able to know the research that would help improve their lives. This is my way to be of service to the community.

As a young scientist, what do you envision for the Philippine science, technology and innovation ecosystem in the next 10 years?

In the next 10 years, I think the science and technology research ecosystem in the Philippines will focus more on doing researches which value industry and university relationships. More researchers will value partnerships with industries as these partnerships have been embraced by the research community and have great potential in helping improve the country's economy. The transfer of knowledge generated from research to the communities will help improve people's work attitude and lives.

Bernadeth is currently working as a Senior Faculty Researcher at the Iloilo Science and Technology University. She plans to continue her research on glycosaminoglycans (GAGs).

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