

Advanced Research Scholar – Post-doctoral

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

Food Science
April 2017 – January 2018
Oklahoma State University
Dr. Edralin A. Lucas
*Characterization of Canistel (*Pouteria campechiana*) and its applications as a functional food ingredient*

Describe your research conducted in the US.

My research primarily aimed to explore the potential use of canistel, a highly underutilized fruit in the Philippines, as a functional food. Specifically, I purposed this research to: 1) investigate its potential use as a partial wheat flour substitute in chiffon cake and as a natural nutrient fortificant, 2) extract beta carotene through supercritical fluid extraction vis-a-vis microwave-assisted extraction and apply it as a natural food colorant, and 3) assess the anti-inflammatory properties of its bioactive compounds in raw cells.

What was the highlight of your research in the US?

I conducted several physical and chemical analyses and used different analytical equipment and facilities that I have never used before. Moreover, I also engaged in product development.

In what way has the USAID scholarship changed you?

This advanced research endeavor transforms me from being a social researcher to a technical researcher. My experience in this venture enabled me to overcome my limitations and widened my horizon as a researcher, educator, extension worker and leader.

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

This research could help contribute to economic development by: 1) translating and packaging my research outputs into commodity, 2) exploring and harnessing the other potential use of canistel and other underutilized plants in the Philippines to help address food security, and 3) using more cost effective and efficient processes in developing other innovative and healthy food products in collaboration with other government agencies such as DOST, DA-BAR, PhilRice, PCC, BFAR, etc.

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

As a food scientist, I aspire to see the Philippines meeting the demands of global market. This can be achieved by creating highly competitive, innovative, healthy, and quality food products through science, technology and innovation.

After returning to the Philippines, Judith plans to conduct more research related to canistel and other functional foods. Furthermore, she also plans to engage in commercial development of more novel food products. She plans to align this to the operation of the “soon-to-rise” CLSU Food Innovation Center.

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