



ISN-CAEN Fellowship Award Category 1A (December, 2017)

Report of Lab Visit

Awardee: **Lydia Ior**

Department of Pharmacology, Faculty of Pharmaceutical Sciences, University of Jos. Jos, Nigeria.

Home Advisor: Otimenyin Sunday PhD.

Host Laboratory's Advisor: **Flavia Guzzo PhD and Raffella Mariotti PhD.**

Host Laboratory: Laboratory of Plant metabolomics, Department of Plant biotechnology, University of Verona, and Department of Neuroscience, Biomedicine, and Movement Sciences School of Medicine, University of Verona, Verona. Italy.

I received the CAEN Award Category 1A (December, 2017) award in February, 2018 to support my visit to the Laboratory of Prof. Flavia Guzzo and Dr. Raffaella Mariotti. University of Verona, Italy. But due to challenges regarding Visa processing, I could not begin my visit until September, 2018.

I arrived Verona on Saturday 22nd September, 2018, and was picked by my advisor/host Flavia Guzzo at the airport. She took me to my accommodation and later arranged to pick me up in the evening to her house for a welcoming dinner, where I met most of the lab members, most of them were post graduates students, and Doctoral researchers, it was very kind of them and I felt welcomed indeed. On Monday I went to the lab, and during the lab meeting which usually holds on Monday, I was introduced to all the members of the lab and their various research projects, I also intimated them about my work, the aspect I had done in Nigeria and what I hoped to accomplish in Verona. My host gave me a general orientation of the laboratory, she then drew a schedule for my work and assigned members of the lab to work with me on the various aspects. The lab members were willing to share their research experiences with me and did not hesitate to put me through whenever I needed assistance, my host/advisor also worked with me to ensure that I achieved my goals. We were able to Identify, and characterized the various metabolites present in *Terminalia macroptera* leaf extracts, we also compared the metabolites present in the most active fraction (ethyl acetate fraction) with the other fractions and we found out that the most active fraction had a richer deposits of the metabolites compared to the other fractions, we purified the ethyl acetate fraction and the isolates were tested for neuroprotective effects in the laboratory of Raffaella Mariotti, my second advisor. *Terminalia macroptera* was found to demonstrate potent

protection of the neuronal cells against hydrogen peroxide induced apoptosis compared to the negative control. Other tests carried out on the extract included anti-oxidant, and the inhibitory effect of the extract on human MAO A and MAO B enzymes. The results obtain where quite interesting and promising. I had the opportunity of sharing my research findings with other lab members during the lab meeting, my visit ended with a farewell lunch organized by my host.

The experience gained was unquantifiable and the relationship built is important for future collaboration. I am thankful to ISN for given me this opportunity to broaden my knowledge and gain more insight to neuroscience research. The work done will help to further my progress in my PhD research.

The award was used to finance the flight tickets, insurance and accommodation in the host country. My gratitude to ISN for their generous support.



Photo 1: Lydia Ior at, University of Verona, Italy



Photo 2: Lab meeting with my advisor and lab members, University of Verona, Italy.



Photo 3: Lydia Ior, at Prof. Flavia Guzzo's Lab, University of Verona, Italy



ISN
International Society
for Neurochemistry



Photo 4: Lydia Ior with Prof. Flavia Guzzo, My host/ Advisor. University of Verona. Italy.



ISN
International Society
for Neurochemistry



**UNIVERSITÀ
di VERONA**

Dipartimento
di **BIOTECNOLOGIE**

To the ISN-CAEN Fellowship Award Committee

Dear Committee,

I wish to endorse Lydia Ior who spent a three-months period in my laboratory (Plant biology and metabolomics, Department of Biotechnology, University of Verona, Italy), working on a project aimed to chemically and functionally characterize an active extract of *Terminalia macroptera* leaves.

She worked willingly in her project, and also fully participated in the lab activities (as periodic lab meetings). At the end, she was able to reach the planned aims.

Yours sincerely,

Flavia Guzzo

University of Verona, Biotechnology Department

Strada le Grazie 15, Cà Vignal 1, 37134 Verona (Italy)

Phone n. +39 45 8027923

Fax n. +39 45 8027929

Email flavia.guzzo@univr.it

Dipartimento di Biotecnologie

Ca' Vignal 1, Strada Le Grazie, 15 - 37134 Verona, Italia | T +39 045 8027933

segreteria-dbt@ateneo.univr.it

P. IVA 01541040232 | C.F. 93009870234