

ISN/CAEN RESEARCH VISIT FELLOWSHIP REPORT

Visiting Fellow: Olajide, Olayemi Joseph

Ph.D. Student, Department of Anatomy, Faculty of Basic Medical Sciences,
University of Ilorin, Nigeria

Host Scientist: Dr. Stephen R. Price

Reader in Developmental Neurobiology

Host Laboratory: Price Lab, Research Department of Cell and Developmental Biology,
Division of Biosciences, University College London, London, United
Kingdom

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Duration: 2nd of February, 2015 – 4th of April, 2015

I arrived at my host laboratory located within the Anatomy Building of the UCL along Gower's Street, London on the 3rd of February 2015 where I met my host scientist, Dr. Steven Price who gave me a warm welcome. Dr. Price immediately allocated me an office space and introduced me to some members of his laboratory who extended their support and helped me settle in. Subsequently, I underwent drills on 'local safety induction for new staffs and visitors' from Ms. Tamsin Piper who kindly took her time to show me access routes around the entire building and associated areas. Following this, Dr. Price gave me hands-on training on OCT mounting technique with which we obtained cryostat frozen sections from nervous tissues. Frozen sectioning is a bit different from the paraffin wax sections I was trained in initially; I find it very useful as it saves a lot more time amongst many other advantages. Dr. Price then guided me through other procedures necessary for preparing sections for immunofluorescence and then the staining methods. I also had the opportunity to use a Nikon Eclipse E80i Compound Microscope in studying my slides and for photomicrography. During my stay, using immunofluorescence I was able to demonstrate Neuronal Nitric Oxide Synthase (nNOS) and Inducible Nitric Oxide Synthase (iNOS) in the prefrontal cortices (PFC) of rat brains to assess expression levels of these endogenous molecules to biological assault of NaN_3 versus the mediation/protection/scavenging properties of kolaviron (*garcinia kola* isolate). The outcomes showed that kolaviron protected PFC in rats from the neurotoxic effect of NaN_3 when administered prior to assault while it holds little mediating effects when administered after NaN_3 neurotoxicity. This is integral to my Ph.D. research project and it addresses some of my basic research questions. Also, I had the opportunity to observe other research going on in Price's lab which principally focuses on roles of specific molecules that participates in evolving neuronal assemblies of the developing nervous system using chick embryos as models. I particularly find electrophoresis of the rapidly developing neural tube interesting because of its intricate nature and the thrills of waiting to

determine outcomes. In general, I had the opportunity to interact with a good number of promising scientists and this fellowship was very expository for me; the experience would definitely impact my career as a neuroscientist positively. I wish to state also, that an article from the whole study has been accepted for publication in *Metabolic Brain Disease* (Springer Neuroscience) with ISN duly acknowledged. I am genuinely grateful to Dr. Price for his generosity, support and mentoring before and during my stay. His laboratory provided all research consumables used for my training and research during my stay at UCL. I sincerely appreciate the International Society of Neurochemistry for selecting my application for the visiting fellowship and Prof. Roberto Cappai for his moral support. I acknowledge Kristina Tubby and Lee Pui Shee who are members of Price lab for their friendship and for showing me to things around the laboratory.

Below are some pictures that were taken in Price's laboratory during my visit.



- 1. Using the dissecting microscope in Price's lab**
- 2. With Dr. Stephen Price**
- 3. Using the Fluorescence Microscope**
- 4. From left; Kristina, Dr. Price, Pui Shee and Joseph**

OLAJIDE, O.J.

23/04/2015