

Report on the 9th Teaching Tools Workshop, Entebbe, Uganda
Submitted by Sharon Juliano, PhD

The 9th Teaching Tools Workshop (TTW) occurred in Entebbe, Uganda from September 16 – 21, 2016. The Workshop included 25 attendees who originated from 13 African countries including Ethiopia, South Africa, Benin, Nigeria, Cote d'Ivoire, Kenya, Uganda, Senegal, Morocco, Zimbabwe, Zambia, Malawi, and Cameroon. All the participants were young faculty at their respective Universities; seven were women. As has been our custom since the initiation of these Workshops, we included a participant from a past Workshop to participate as faculty. This year, we asked two people to participate: Dr. David Fotsing from Cameroon, who presented an excellent lecture on the Physiology and Neurochemistry of stress and Nadine Gravett from South Africa who presented a lecture on the Basal Ganglia. This year we had an especially rich and diverse group of students from many countries, who were excellent in their intellect, inquisitiveness, and ability to absorb our presentations. We were expertly hosted by Sadiq Yusuf, St Augustine International University, Kampala Uganda, who also participated in the Workshop providing a presentation on "Long distance and on-line learning". Our additional faculty included Drs Jack Martin, Janis Weeks and Sharon Juliano from the USA, Evelyne Sernagor from the UK, Nilesh Patel from Kenya, and Amadi Ihunwo from Nigeria/South Africa.

We focused on "The Fundamentals of Neuroscience" presenting lectures, laboratories, and interactive activities. Many of the lectures and labs focused on the neurotransmitters involved in signaling processes related to nervous system function such as those involved with electrophysiological transmission, pain, the neuromuscular junction, and cerebellar function and dysfunction. Our workshop importantly included presentations on pedagogy and how to teach effectively. (A schedule of the program is attached.) An important aspect of the TTW is to strongly encourage learner centered teaching; several of our sessions include aspects of learning in groups and each session is interactive. We also recently integrated tools for learning and teaching neuroradiology and medical imaging. The participants leave with all the tools they were exposed to, including lectures, interactive laboratories, resources for teaching, pedagogy, atlases, other materials and software (e.g., *Neurons in Action* for teaching and understanding electrophysiology).

We additionally had several sessions of organized discussion, which focused on a series of questions where the participants were arranged in groups. They then prepared formal presentations at the end of the Workshop on a range of issues related to teaching in Africa. These included items such as infrastructure, class size, learning and teaching styles, and corruption and prejudice. The TTW participants engaged in active discussion about these issues, as well how to integrate a program of Neuroscience into their curriculum, influence their heads of department, and motivate their students and colleagues. This is the second year

each group of students also presented on the best way to integrate what they learned in the TTW into their own curricula at their home Universities. So far we received several reports from this year's participants indicating their plans to communicate and promote change at their home institutions.

The 9 TTWs have evolved and changed with each presentation. The course duration expanded from 4-6 days; more time would be welcome as the students always ask for longer sessions in their course evaluations. The number of sessions on "how to teach effectively" increased along with overall discussion sessions. The discussion sessions are now more structured as we present the attendees with specific questions to address and an order of progression. The overall scientific content of the Workshop is continually reviewed to include topics essential to understanding Neuroscience. This year we included a presentation and discussion about curriculum design and also a presentation on "Long distance and on-line learning", this was a new topic that was well received. The TTWs show a consistent process of change and growth by expanding and changing the curriculum, the activities of the students, and the growth of the faculty in learning how to be more effective and interactive teachers. This last feature is especially important as the faculty learn to approach teaching with new energy and new interactive skills.

The TTWs receive support from IBRO, and The Grass Foundation, and the International Society of Neurochemistry.

These are a few of the comments sent to us by the participants:

Please do not be bored by the letters you are receiving from your students at the TTW, Entebbe, Uganda.

You simply remodelled us and we are already seeing the results with excitement and delight as we try to employ the skills, knowledge and resources we acquired from you in Entebbe. That is why we will continue to thank you once and again.

Soon as I came back, I organised a tutorial class for our students who were preparing for the 2nd MBBS Professional Examinations in my institution and since then, they have given me series of calls to spare them some of my time in going through revision sessions with them even in other areas; this I have done with tremendous positive results. I was able to achieve this through the use of knowledge, skills and resources which we were exposed to at the workshop.

I lack words appropriate to relay to you the excitement we are getting from the positive impact of employing what we got from you at the workshop. But suffice it to say that you were simply wonderful.

I was really and fully honored to be associated and to spend this wonderful time with all these mentors, learning from their rich experience and exercising under their mentorship.

From this first step, I would like to move forward under your canopy, contributing to the spread of Neuroscience in Africa in particular. Please don't hesitate to involve me at any instance you suspect I can be useful or from which I can learn more.

Financial report:

Funds supplied by the ISN

\$10,221	Airfare for 10 students
\$8,279	Sleeping rooms + food and conference rental for meeting for 10 students
\$18,500	Total

The remaining students and airfare were paid by the Grass Foundation.
Total received from the Grass Foundation: \$28,462

Faculty airfare and other incidental expenses covered by IBRO.
Total received from IBRO: \$16,000

Students receiving support from the ISN:

Assomo Ndemba OUAFO	Peguy Brice AGNES CAROLLE	assomo_ndemba@yahoo.fr carolleouafo@gmail.com	Cameroon Cameroon Cote d'Ivoire
Kouadio Pacôme Alemayehu Samson Christopher SAMUEL Mayeso Fortuné Hanaa	N'GO Mena Salile Musembi NYAGA Gwedela GANKPE HODDAH	pacngo.neuro@gmail.com alexpharma99@yahoo.com samsahle@GMAIL.COM musembi06@yahoo.com nderitunyaga@gmail.com mgwedela@medcol.mw fgankpe@yahoo.fr women_in_neuroscience@yahoo.fr	Kenya Ethiopia Ethiopia Kenya Kenya Malawi Benin Morocco