



Teaching and Research in Natural
sciences for Development in Africa

Neuro Open Science Workshop
ICM 22-23/11/2023

Promoting
scientific
research and
education in
the African
continent

Summary

- ▶ Trend in Africa
 - ▶ What
 - ▶ Where
 - ▶ Some numbers
- ▶ Open Science @ Trend in africa



Open Science



Volunteering Program



Research training

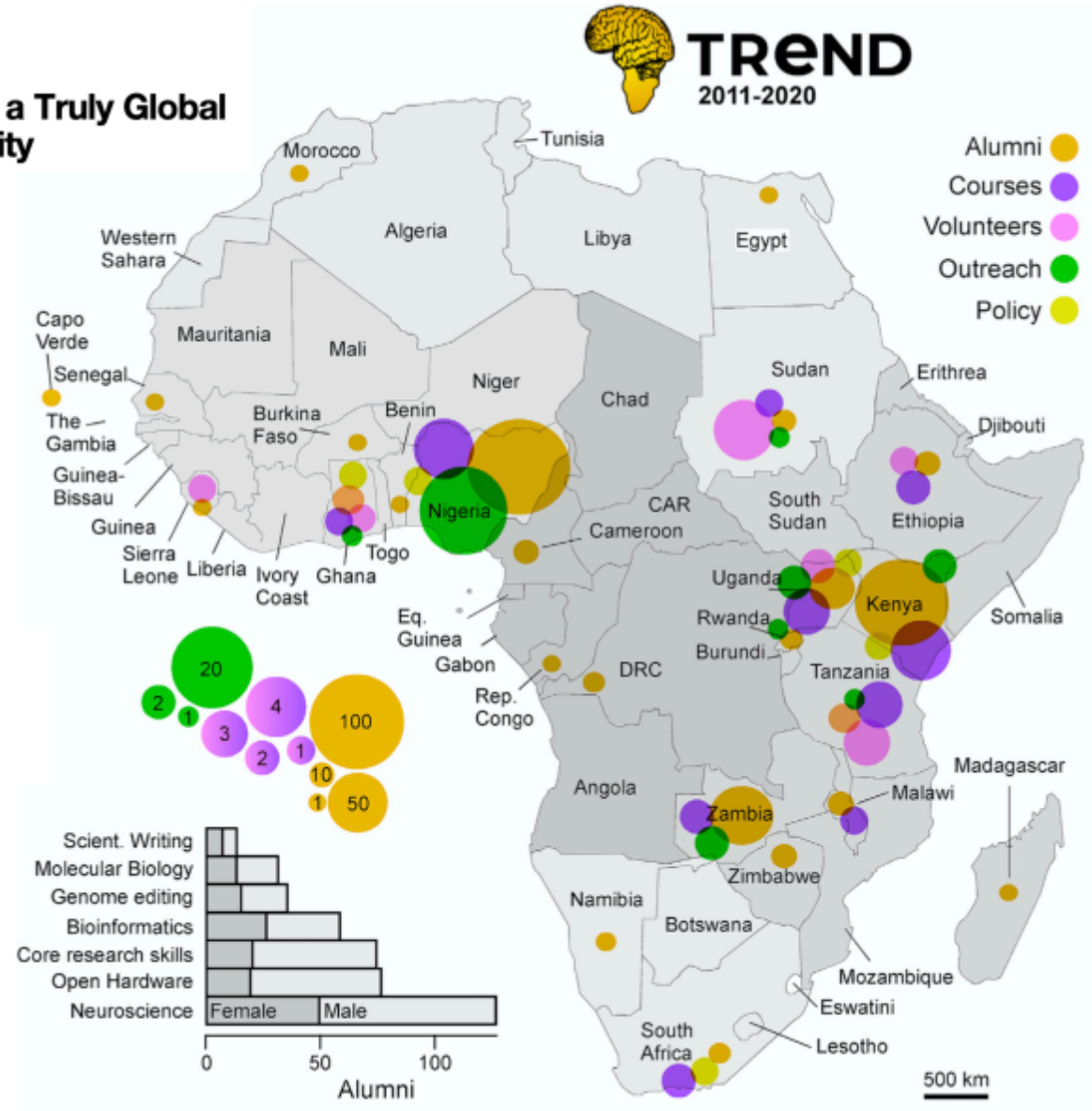


**Outreach Events &
Policy Making**



Equipment Donation

TReND in Africa: Toward a Truly Global (Neuro)science Community



OUR IMPACT IN NUMBERS

Since its humble beginnings in 2011, TReND has run courses and outreach events with researchers and universities across the African continent. We have also collected and shipped equipment to boost the research capacity of our partner universities, and helped establish new research institutes.

800

COURSE ALUMNI

10000

MEMBERS OF THE PUBLIC
ENGAGED

60

AFRICAN PARTNER UNIVERSITIES

12

TONS OF EQUIPMENT SHIPPED

87

COMMUNITY OUTREACH EVENTS

22

AFRICAN COUNTRIES

The TReND in Africa - Support partners



Open Science @ Trend in Africa

- ▶ Open Labware courses
 - ▶ Tools and skills to build and create research tools & equipment
- ▶ Open Science in courses
 - ▶ Introduction
 - ▶ Presentation of resources
 - ▶ Matching available skills and needs
- ▶ Open Reagents
 - ▶ Working with different collaborators (Gana, Nigeria, Austria, UK, Italy) to create testing
 - ▶ Covid, Tuberculosis, HPV, Schistosomiasis





Oluwaseun S. Faborode*, Issa O. Yusuf, Paschal O. Okpe, Ann O. Okudaje and Samuel A. Onasanwo

Exposure to prolonged unpredictable light impairs spatial memory via induction of oxidative stress and tumor necrosis factor-alpha in rats

<https://doi.org/10.1515/jbcpp-2020-0160>

Received July 4, 2020; accepted January 23, 2021;
published online April 20, 2021

also revealed significant changes in the concentrations of MDA, SOD, catalase, and GSH levels ($p < 0.05$), not GST. Similarly, there was an increased TNF- α expression



Contents lists available at [ScienceDirect](#)

HardwareX

journal homepage: www.elsevier.com/locate/ohx



Hardware Article

Actifield, an automated open source actimeter for rodents

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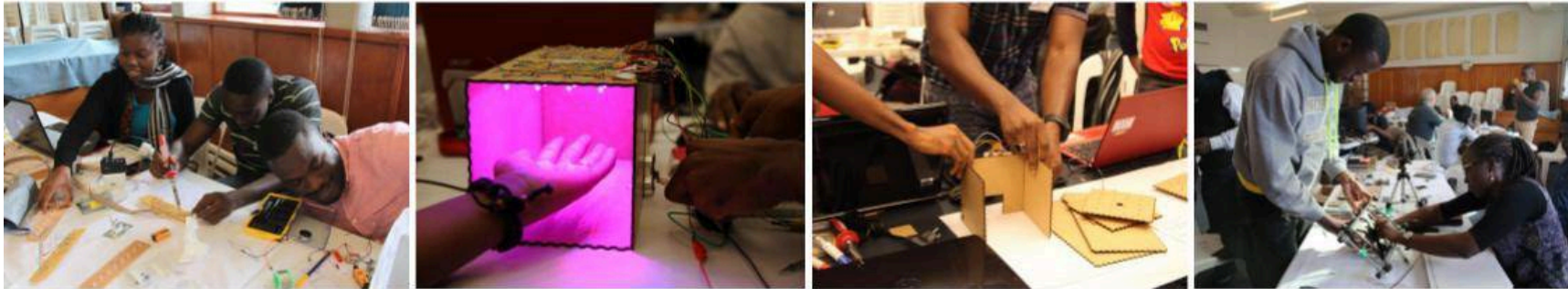


Open Labware Workshop

Learn how to build your own lab equipment

28th July - 10th August, 2019

University of Health and Allied Sciences, Ho, Ghana



Application Deadline: 10th July, 2019. Apply here: bit.ly/DIYLabware

Eligibility: We invite group applications from Ghanaian universities or research institutions. A group consists of three (3) members, all of whom should be based at the same or nearby Institution. Each individual candidate may only feature in one group application. Graduate students and faculty are eligible.

Description: Participants at this workshop will receive hands-on training in modern technologies to be able to design, assemble, test and document their own lab equipment and hone it towards an academic pre-print and/or a GitHub project. Additionally, participants will be provided with the tools, equipment and mentorship to build selected equipment at the workshop. Topics to be covered include 3D Printing, Computer Aided Design (CAD), Arduino, Basic Electronics, GitHub and Documentation.

Participation is **free** for selected applicants. The organisers will cover accommodation for the full 2 weeks including breakfast and lunch. Transportation to the venue and other meals are not covered. Send a mail to kumbolvictor@gmail.com if you have any enquiries.

Partners



 OPEN ACCESS

COMMUNITY PAGE

Bypassing shortages of personal protective equipment in low-income settings using local production and open source tools

Royhaan Olamide Folarin , Mahmoud Bukar Maina, Abisola Kaosara Akinbo, Tamramat Iyabo Runsewe-Abiodun, Omobola Abioye Ogundahunsi, Ahmed Adebawale Adedeji , Andre Maia Chagas 

BioRTC



RT-LAMP





PROTOCOL WITH OPEN ACCESS REAGENTS



VolkswagenStiftung



Leveraging open hardware to alleviate the burden of COVID-19 on global health systems

Andre Maia Chagas , Jennifer C. Molloy , Lucia L. Prieto-Godino , Tom Baden 

How can you take part?

Become part of the **TReND team**

- Help with publicity
- Help with international relationships

Take part in our volunteer program or gather a team to organize a summer course.

Help us collect equipment.

Write a message to samyra@trendinafrica.org



www.trendinafrica.org
samyra@trendinafrica.org
info@trendinafrica.com

“Education

is the most powerful weapon which you can use to

change the world“

-Nelson Mandela