

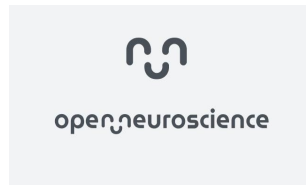
Hello!

I develop/share/teach open source tools, mostly hardware

You can find me at

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Prometheus Science
OPEN SCIENCE FOR EVERYONE

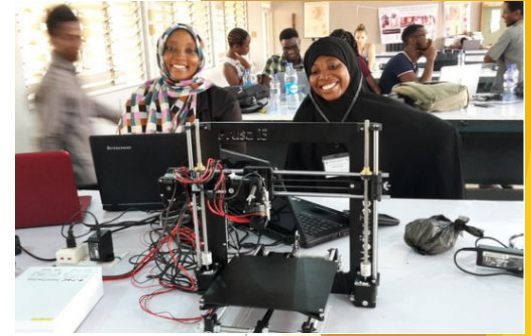


*Promoting scientific
research and
education in the
African continent*

Teaching and **R**esearch in Natural
sciences for **D**evelopment in Africa



DIY



Skill transfers



Research training



Outreach events

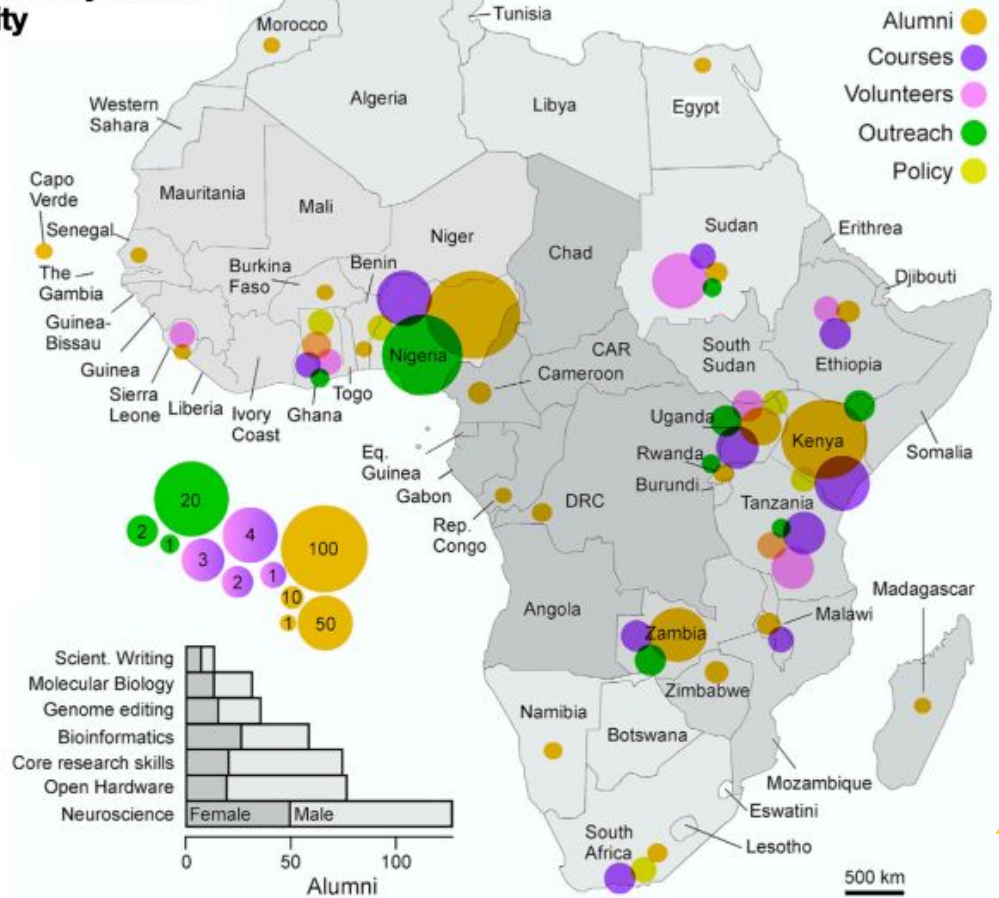


Equipment Donation

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



TReND
2011-2020



OUR IMPACT IN NUMBERS

500

COURSE ALUMNI

5200

MEMBERS OF THE PUBLIC
ENGAGED

60

AFRICAN PARTNER UNIVERSITIES

12

TONS OF EQUIPMENT SHIPPED

87

COMMUNITY OUTREACH EVENTS

22

AFRICAN COUNTRIES

Some of our sponsors and partners



Thank you for your time



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samyra@trendinafrica.org
info@trendinafrica.com

“Education

is the most powerful weapon which you can use to

change the world“

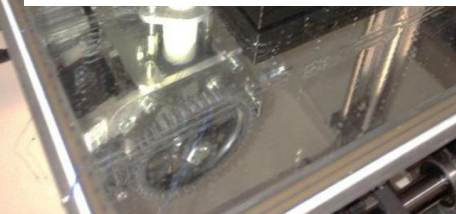
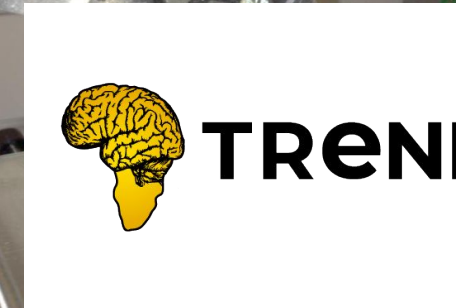
-Nelson Mandela

Open labware

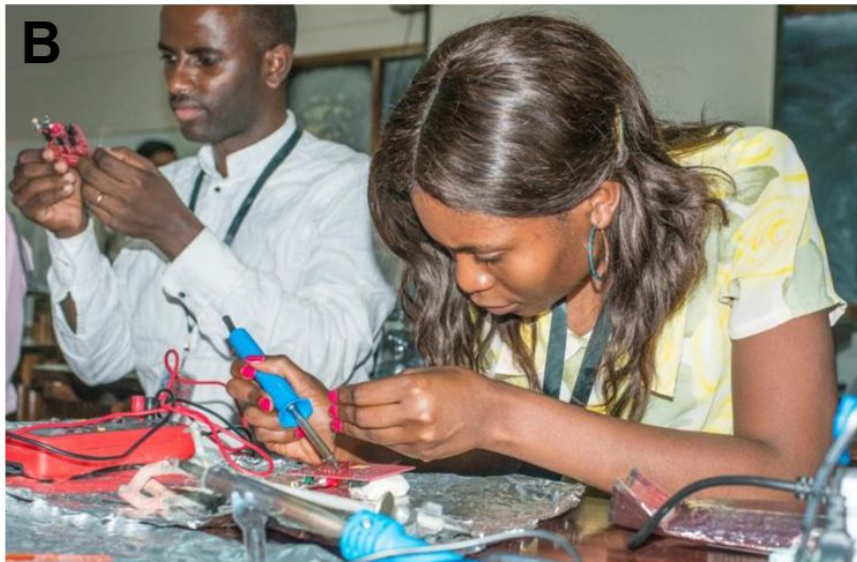
Open Labware: 3-D Printing Your Own Lab Equipment

Tom Baden , Andre Maia Chagas, Greg Gage, Timothy Marzullo, Lucia L. Prieto-Godino, Thomas Euler

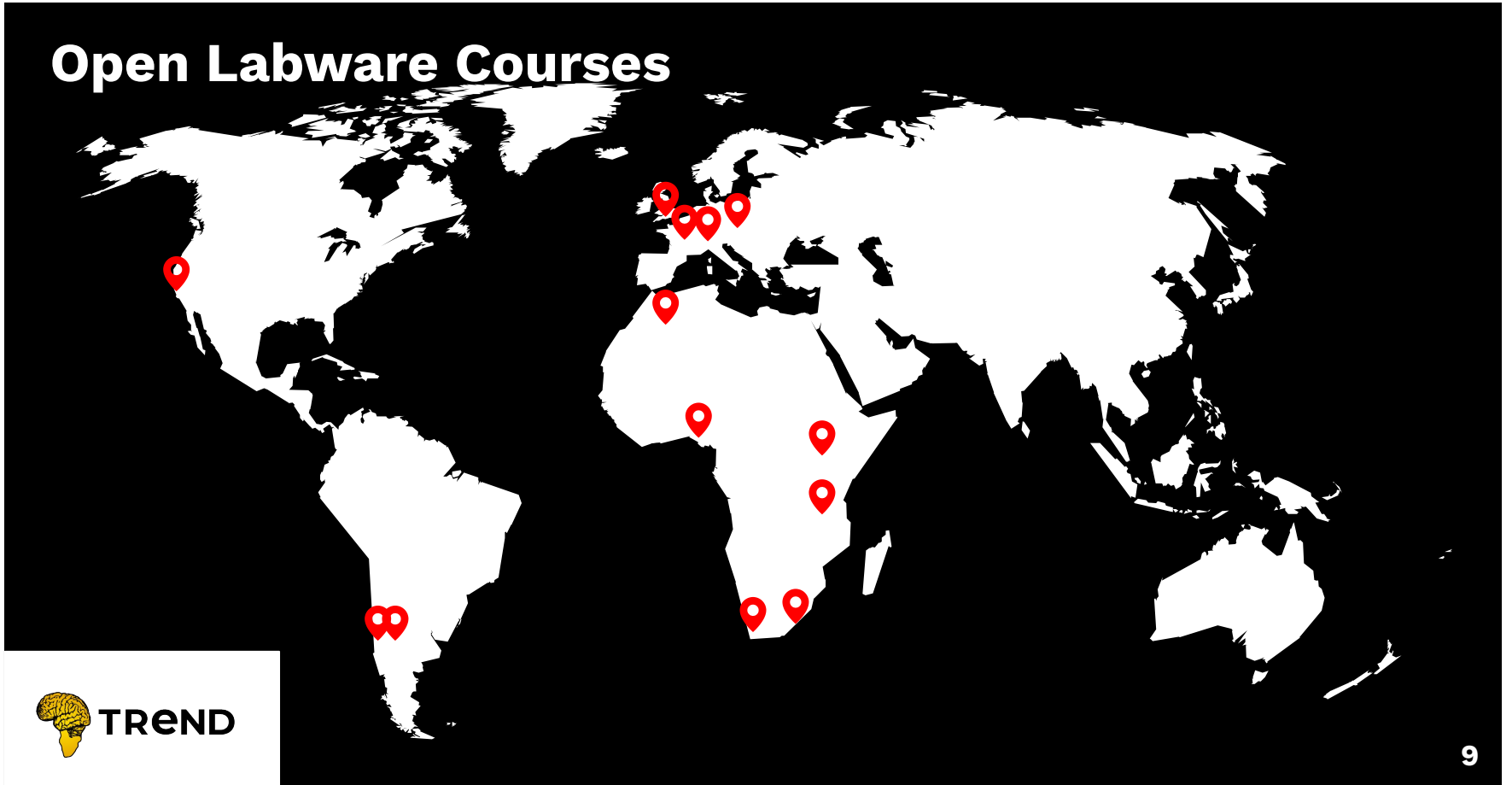
Published: March 20, 2015 • <https://doi.org/10.1371/journal.pbio.1002086>



B₁



Open Labware Courses



Basic Open Labware Workshops (2 weeks)



Present

- What is open source
- How can it be used for science

Share

- How do we build “fishing rods”?
- How having this ability can make me a better scientist

Build

- The tools needed for the job
- The tools we need for science

Basic Open Labware Workshops (2 weeks)



Cost

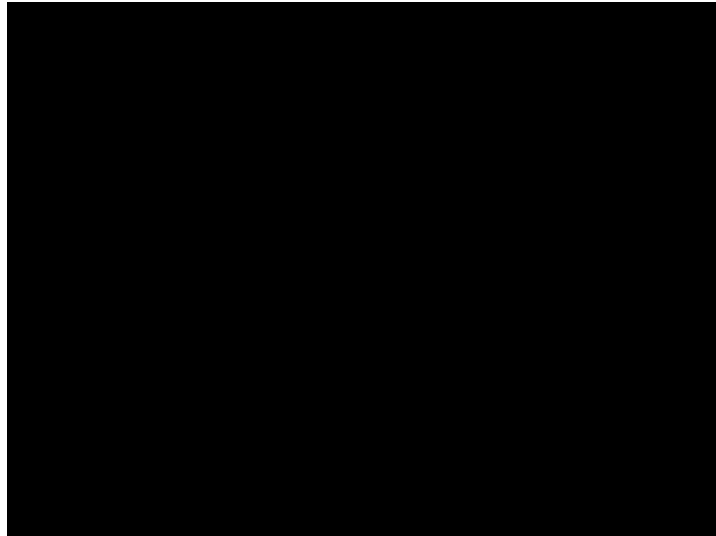
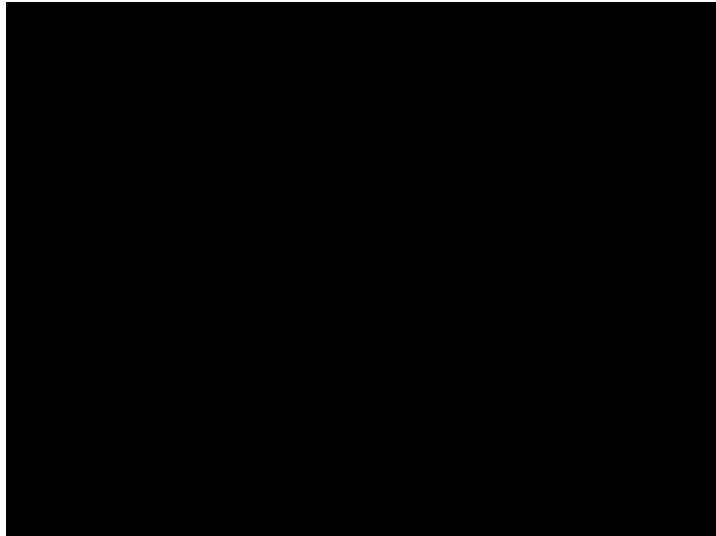
- 3D printer kits
- Arduino kits
- Flights + food + rooms

HR

- Local (as much as possible)
- 1 faculty: 2 groups ratio

Supplies

- Either bring all supplies



All Open Labware videos are on this [playlist](#).

Solving local issues



Power failures stopped the workshop everyday...

- Hiring a company to install solar panels
- ~2k Euros and 2 days from request to installation
- Infrastructure for university

Advanced Open Labware Workshops



Present

- Open source: a common definition
- Best practices on developing tools

Share

- Experiences
- Horizontally

Build & write

- The tools we need for science
- Document, document, document

Advanced Open Labware Workshops



Preparation (very early)

- Each group: a BOM and a device
- Organization: Source parts and “shape” plans for device



Open labware courses



TREND



ELSEVIER

Contents lists available at [ScienceDirect](#)

HardwareX

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



Hardware Article

Actifield, an automated open source actimeter for rodents

Victor Wumbor-Apin Kumbol^{a,*}, Elikplim Kwesi Ampofo^b, Mary Ayeko Twumasi^b

^aDepartment of Pharmacology, Faculty of Pharmacy & Pharmaceutical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

^bDepartment of Pharmacognosy, Faculty of Pharmacy & Pharmaceutical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

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

On the workshops themselves

- Basic Open Labware:
 - [preprint](#)
- Advanced Open Labware:
 - [Conference publication](#)

 OPEN ACCESS

COMMUNITY PAGE

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 

Published: April 24, 2020 • <https://doi.org/10.1371/journal.pbio.3000730>

228
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39
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10,679
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RESEARCH

PPEs From Nigerian Academia: Flattening The COVID-19 Curve With 3D Printing And Locally Sourced Intervention

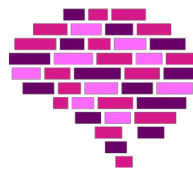
> [Royhaan Folarin](#), [Andre Chagas](#), [Mahmoud Bukar](#), [Abisola Akinbo](#), [Tamra Runsewe-Abiodun](#), [Omobola Ogundahunsi](#), [Ahmed Adedeji](#)

DOI: [10.21203/rs.3.rs-746559/v1](https://doi.org/10.21203/rs.3.rs-746559/v1)  [Download PDF](#)

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TREND



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Thanks!

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