

## DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY



**Name of Staff:** Benard Aswani Ouna

**Designation/Rank:** Lecturer

**Laikipia University:** School of Science and Applied Technology

**Email:** [bouna@laikipia.ac.ke](mailto:bouna@laikipia.ac.ke)

### **Educational Background/Qualification:**

- PhD (Dr. rer nat.) (Molecular Biology), ZMBH, Universität Heidelberg, Germany (2012)
- Masters of Science in Biochemistry, Egerton University, Kenya (2007)
- Bachelors of Science (Chemistry and Biochemistry) Egerton University, Kenya (2001)

### **Brief Auto-biography of the Faculty/Staff**

I am a Biochemist and Molecular Biologist with experience in genetic manipulation using various biochemical, molecular and bioinformatics research tools. I also have knowledge and exposure to various chemistry analytical tools used in toxicological analyses and quality control. In addition to research, I have experience in university teaching, supervision and programme management.

### **Research Interest**

I am interested in omic studies and the general area of biochemistry and molecular biology

### **Publications**

1. Gaiti M., **Ouna B.**, Kinyuru J. and Mapesa J. (2018). Detection of cu, cd And cr In Sugarcane Grown Along ngong Tributary of Nairobi River. *IOSR Journal of Environmental Science, Toxicology and Food Technology* 12(2)I , PP 63-71. <https://www.bing.com/ck/a?!&p=4409a73e8bbbb7aaJmldHM9MTY4NDI4MTYwMCZpZ3VpZD0wNTNmN2MzOS05MDIyLTY1ZmYtMDMzMC02ZjlkOTFhNTY0MmImaW5zaWQ9NTE4NA&pfn=3&hsh=3&fclid=053f7c39-9022-65ff-0330->

[6f2d91a5642b&psq=Detection+cu+cd+cr+sugarcane&u=a1aHR0cHM6Ly9pb3Nyam91cm5hbHMub3JnL2lvc3ItamVzdGZ0L3BhcGVycy9Wb2wxMi0lMjBjc3N1ZSUyMDIvVmVyc2lvbi0xL0oxMjAyMDE2MzcxLnBkZg&ntb=1](https://doi.org/10.1371/journal.pone.0034256)

2. **Ouna B. A.**, Nyambega B., Manful T., Helbig C., Males M., Fadda A. and Clayton C. (2012). Depletion of trypanosome CTR9 leads to gene expression defects. *PLoS ONE* 7(4): e34256. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0034256>
3. **Ouna B. A.**, Stewart M., Helbig C. and Clayton C. (2012). The *Trypanosoma brucei* CCCH zinc finger proteins ZC3H12 and ZC3H13. *Molecular & biochemical parasitology* 183(2), 184-188. <https://doi.org/10.1016/j.molbiopara.2012.02.006>
4. Benz C., Mulindwa J., **Ouna B.** and Clayton C. (2011). The *Trypanosoma brucei* zinc finger protein ZC3H18 is involved in differentiation. *Molecular & biochemical parasitology*, 177(2), 148-151. <https://doi.org/10.1016/j.molbiopara.2011.02.007>

## Project Supervision

### Completed

1. Study of heavy metal bioaccumulation in sugarcane planted along Nairobi River- LU internal grant.

### On-going

NRF- Kenya: Multidisciplinary research grant (2019/2020 FY)

1. Qualitative and safety analysis of rice bran supplemented foods
2. Immune profiling, metabolomic and gut microflora metagenomics of infants on rice bran supplementary feeding

## Conferences Attended

### Oral presentation

- **Ouna B. A.**, (July 24th, 2006). African sheep Y chromosome diversity. Egerton University, Research Week Conference, Njoro, Kenya.

### Posters:

1. **Ouna B. A.**, Stewart M. and Clayton C. (2011). Functional characterization of *Trypanosoma brucei* ZC3H12 and ZC3H13 zinc finger proteins. HBIGS annual meeting, Heidelberg Germany.
2. **Ouna B. A.**, Stewart M. and Clayton C. (2010). Functional characterization of the *Trypanosoma brucei* CCCH zinc finger protein ZC3H12. 1<sup>st</sup> Cellular Networks Conference, Heidelberg Germany.

3. **Ouna B. A.**, Kijas J., Meadows J.I.S., Limo M., Hanotte O. and Mburu D. (2006). Analysis of genetic diversity and relationships of African male sheep using two Y chromosome specific markers. pp 25. ISBN; 85-85584-02-5 (site [www.cbra.org.br](http://www.cbra.org.br)).

### **Workshops & Seminars**

1. Mass Spectrometry (MS), Sankara Hotel, Nairobi, Kenya 28/11/2014
2. Microscopy; Nikon Imaging Center at Heidelberg University, Germany Nov. 23-27, 2009
3. Cytometry; Becton Dickinson and company (BD), Heidelberg Oct. 5-7, 2009
4. Bioinformatics; ILRI, Nairobi, Kenya. 14th-16th August 2006 and Nov., 2005.
5. Molecular and protein techniques; University of Nairobi, Kenya and University of Hertfordshire, U.K, Feb. 28- Mar11, 2005 and Aug. 2 – 6, 2004.