

Dr. SAMWEL ODIWOUR

DESIGNATION: Lecturer

DEPARTMENT: Biochemistry and Biotechnology

CONTACTS:

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ACADEMIC QUALIFICATIONS:

PhD (Biomedical Sciences).University of Antwerp, Belgium in collaboration with the Institute of Tropical Medicine (ITM), Antwerp and the Center for Clinical Research of the Kenya Medical Research Institute (KEMRI), Nairobi.

Master of Science (Molecular Biology) – Catholic University Leuven and the Institute of Tropical Medicine, Antwerp

Bachelor of Science (Biochemistry), Kenyatta University

TRAINING

June 20th to 24th 2016

Molecular Biology and Immuno Q-PCR at ChromAfrica/KIRDI, at the Kenya Industrial Research and Development Institute (KIRDI) premises Nairobi, Kenya.

April 7th and 8th 2016

Ethical Review at Mount Kenya University

Sep 6th – 7th 2014:

Pedagogy skills at the Mount Kenya University, Thika campus

Aug 27 – 29, 2014:

Bioethics at the KAVI-Institute of Clinical Research, University of Nairobi

SEMINARS, CONFERENCES AND WORKSHOPS

March 6-8, 2014

Humboldt Colloquium - "The Power of Excellence in Science –Enhancing Academia Capacities in Africa" at the Safari Park Hotel, Nairobi, Kenya.

Presented a poster on Cutaneous leishmaniasis in Kenya.

August 28 -30, 2013

Mount Kenya University Annual Research and Innovation Conference. Safari park Hotel, Nairobi Kenya.

April 25 & 26, 2013

Second Pathology Conference, Aga Khan University Hospital

Theme: "Laboratory Quality and Process Improvement in Resource Limited Settings. Aga Khan University, Nairobi

April 25-27, 2012

Kenya Methodist University scientific conference. Promoting Research and Innovation towards the Attainment of Vision 2030. Kenya Methodist University, Meru campus

Nov 03 to 05, 2010

10th Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases (MEEGID X) conference, Amsterdam, the Netherlands.

Mar 25 to 27, 2009

Third East African Health and Scientific Conference. Climate, Environment and Health. Kenyatta International Conference Center, Nairobi, Kenya.

Feb 03 to 07, 2009

4th World Congress on *Leishmania* (Worldleish4). Translational Health Science (bench to bedside for management of leishmaniasis). Chhatrapati Shahuji Maharaj Medical University, Lucknow, India.

May 15 to 20, 2008

Keystone symposium: Translating New Technologies to Improve Public Health in Africa. Speke's International Resort Center Munyonyo, Kampala, Uganda.

STUDENT SUPERVISION:

PhD on going:

1. Laban N. Ileri (PHD/2014/62865). Thesis title: Characterization and Ecological Niche Modeling of Malaria and Vector Species in Embu County, Kenya. – Mount Kenya University

Masters graduated:

1. 2015- Wamiti Lawrence Githendu (MMLS/2013/45439)
Interactions between Entomopathogenic Fungus *Metarhizium anisopliae*, *Trypanosoma Congolense* and Tsetse Fly *Glossina fuscipes fuscipes* - Done at Mount Kenya University and at ICIPE.
2. John Kimani Ngugi (MMLS/2013/41429) - Determination of the Aetiology of Lymphadenopathy among Patients Attending Murang'a District Hospital. –MKU and at Muranga County Hospital
3. Munyoki Nyamai (MMLS/2013/41066) - Comparative Determination of Cervical Intraepithelial Lesions between a High Risk Group and the General Population in Nairobi County – MKU and at Nairobi Women's Hospital.
4. Cheruiyot Robert Sang (MMLS/2013/45445) - Antibigram Patterns of Uropathogenic *Escherichia coli* Isolated From Kericho County – MKU, data analysis stage

Masters on-going:

1. Lilian Achacha (TM304-0944/2012) - Determination of *Leishmania tropica* Diversity and Distribution within Sandflies in an Endemic Focus of Cutaneous Leishmaniasis in Rural Kenya – done at JKUAT/ITROMID – data collection
2. Alia M. Samson (MMLS/113/23639) - Iron Deficiency Anemia in Children Under 5 Years of Age in Central Equatoria State, South Sudan – MKU/Sudan, data analysis stage
3. Joseph Mwiti Mwirigi (MMLS/2013/44416) - Antibigram of Selected Enteropathogenic Beef Isolates in Retail Outlets of Nyeri Municipality, Nyeri County – MKU, data collection stage

4. Nancy Asewe (MMLS/2013/45447) - Effect of Human Immunodeficiency Virus Infection on Immuno-Haematological Indices among Antenatal Clinic Attendees in An HIV Endemic Region of Western Kenya – MKU, data analysis stage
5. Richard Langat (MPH/2014/79265) - Assessments of determinants of utilization of routine data for decision making in health facilities in Narok North Sub-County – MKU, data collection stage.
6. Abdirashid Diney Mohammed (MPH/2014/66539) - Determination of Trend and Treatment Outcome for Multidrug Resistant Tuberculosis Among Refugees in Dadaab Refugee Camps in Garissa County, Kenya

RESEARCH ACTIVITIES

Determination of *Leishmania tropica* Diversity and Distribution within Sand Flies in an Endemic Focus of Cutaneous Leishmaniasis in Kenya". This is collaboration between MKU and CBRD-KEMRI.

SELECTED PUBLICATIONS

1. Van der Auwera G, Bhattarai NR, Odiwuor S and Vuylsteke M. 2009. Remarks on identification of amplified fragment length polymorphisms linked to SAG resistance in *Leishmania*. *Acta Trop.* 110(1):80-5.
2. Samwel Odiwuor, A AgeedSaad, S De Doncker, I Maes, T Laurent, S El Safi, M Mbuchi, P Büscher, J-C Dujardin and G Van der Auwera. 2010. Universal PCR assays for the differential detection of all Old World *Leishmania* species. *Eur J Clin Microbiol Infect Dis.* 30: 209-218.
3. Samwel Odiwuor, Marnik Vuylsteke, Simonne De Doncker, Ilse Maes, Margaret Mbuchi Jean-Claude Dujardin Gert Van der Auwera. 2011. *Leishmania* AFLP: Paving the Way towards Improved Molecular Assays and Markers of Diversity. *Infect Genet Evol.* (DOI: 10.1016/j.meegid.2011.03.008).
4. Samwel Odiwuor, Simonne De Doncker, Ilse Maes, Jean-Claude Dujardin, Gert Van der Auwera. 2011. (1st report of the existence of) Natural *Leishmania donovani* / *Leishmania aethiopica* hybrids identified from Ethiopia. *Infect Genet Evol.* (DOI:10.1016/j.meegid.2011.04.026).
5. Samwel Odiwuor, Nicolas Véland, Vanessa Adai, Ilse Maes, Simonne De Doncker, Jorge Arevalo, Jean-Claude Dujardin, Gert Van der Auwera. 2012. Evolution of the *Leishmania braziliensis* species complex from amplified fragment length polymorphisms, and clinical implications. *Infection, Genetics*

and Evolution, Available online 10 April 2012, ISSN 1567-1348, 10.1016/j.meegid.2012.03.028.

6. Samwel Odiwuor, Alfred M Muia, Charles G Magiri, Ilse Maes, George Kirigi, Jean-Claude Dujardin, Monique K Wasunna, Margaret M Mbuchu, Gert Van der Auwera. (2012). Identification of *L. tropica* from new micro-foci of cutaneous leishmaniasis within a larger endemic area in the Kenyan Rift-Valley. *Pathogens and Global Health*.

7. Rogé S, Van Reet N, Odiwuor S, Tran T, Schildermans K, Vandamme S, Vandenberghe I, Vervecken W, Gillingwater K, Claes F, Devreese B, Guisez Y, Büscher P. (2013). Recombinant expression of trypanosome surface glycoproteins in *Pichia pastoris* for the diagnosis of *Trypanosoma evansi* infection. *Vet Parasitol.* 2013 May 17. pii: S0304-4017(13)00300-2. doi: 10.1016/j.vetpar.2013.05.009.