



Dr. Kamau Joseph

39 – 30/10/1974

Molecular Biology

kamauvet@yahoo.com or kamau@ukzn.ac.za



Kenya

My research focuses on population genetics and molecular characterization of animal and human blood flukes in East & Southern Africa region. I am also working in establishing host parasite interactions of malaria and systemic helminth co-infections: A case of *Trichinella zimbabwensis*. In addition I am developing treatment modalities for *Trichinella zimbabwensis* using natural plant extracts. I completed my PhD in 2011 at Hokkaido University Japan in Molecular Biology and Protein Biochemistry. The PhD study focused on functional analysis of putative analysis of *Theileria orientalis* hemolysins and Molecular epidemiology of *Theileria orientalis* in Asia-pacific region

CURRENT RESEARCH

Topic	Methodology	Application
Molecular characterization of zoonotic blood flukes	<ul style="list-style-type: none">Sample collections from abattoirs, Morphometric analysis. DNA extraction, PCR amplifications and sequencing. Identification of New species and or hybrid ones.	Identify the circulating parasites for purpose of control and treatment.
Malaria- <i>Trichinella zimbabwensis</i> co-infection	<ul style="list-style-type: none">Infection of mice with Malaria & <i>T. zimbabwensis</i> parasites, serum collections for cytokines analysis	Identify the immune system modulation in case of co-infection a case scenario common in malaria endemic region

UKZN main Publications

1. Manuscripts under preparations

Past Researches

1. Bashir Salim, Mohammed Ahmed Bakheit, **Kamau Joseph**, Chihiro Sugimoto. **2013**. Current status of equine piroplasmosis in the Sudan. *Journal of Infection, Genetics and Evolution*.
2. **Kamau Joseph**, de Vos AJ, Playford M, Salim B, Kinyanjui P, Sugimoto C. **2011**. Emergence of new types of *Theileria orientalis* in Australian cattle and possible cause of theileriosis outbreaks. *Parasit Vectors*, 4:22.
3. **Kamau Joseph**, Salim B, Yokoyama N, Kinyanjui P, Sugimoto C. **2011**. Rapid discrimination and quantification of *Theileria orientalis* types using ribosomal DNA internal transcribed spacers. *Infect. Genet. Evol.*, 2:407-14

Future Interests

Development of Molecular diagnosis markers for tropical diseases
Consultancy and teaching at the University

Extra Interests

Swimming, playing rugby and traveling