

# GeMVi News | Sep-Dec, 2019



## What is GeMVi?

High throughput pathogen sequencing and predictive models underpin the modern approach to understanding community spread and optimal control of infectious diseases. In this field, despite high disease burden, low income countries have been left behind.

GeMVi aims to reduce this deficit in East Africa, combining strengths of University of Warwick, KEMRI-Wellcome Trust Research Programme (Kenya), Kilimanjaro Clinical Research Institute (Tanzania) and Uganda Virus Research Institute/Makerere University (Uganda). GeMVi will engage health authorities and institutes, identify priority questions and link output to policy; fund 20 high calibre Research Fellows on locally relevant projects; transfer sequencing technologies, share bioinformatic methods and develop modelling capacity; generate new understanding through predictive modelling and virus sequence data.

Ultimately GeMVi aims at provision of evidence for intervention decisions and a sustainable collaborative network in the Region.

GeMVi is looking to recruit East African Research Fellows to undertake short term public health-oriented projects of relevance to the East African setting.

## Research Fellowships

The fellowships present an excellent opportunity for skill enhancement and to work with leading experts in the fields of pathogen sequencing, bioinformatics, predictive modelling and health economics.

### 1<sup>st</sup> Round of Fellowships

The first-round fellows were recruited in June 2019. The projects are now ongoing with expected end-date of March 2020. Details of the projects are given in the following table.

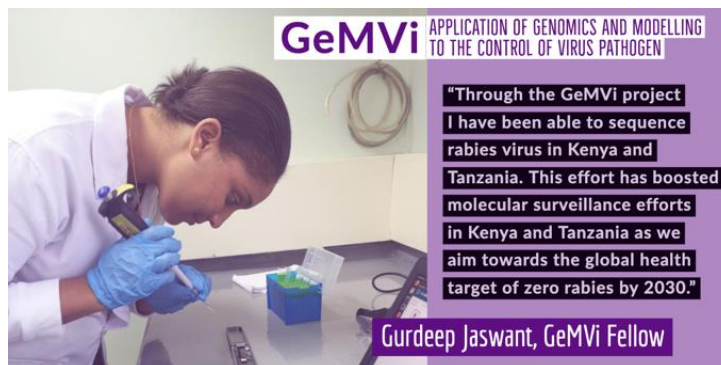
#	Name of candidate	Project	Institutional Affiliation
1	Mr. Alfred Ssekagiri	Identification of viral pathogens associated with undiagnosed acute febrile illness in Uganda	<a href="#">UVRI, Uganda</a>
2	Ms. Phionah Tushabe	Whole genome sequencing of enteroviruses from Acute Flaccid Paralysis patients in Uganda	<a href="#">UVRI, Uganda</a>
3	Ms. Prossy Namuwulya	Establishing Measles/Rubella genomic surveillance and sequencing capacity for Kenya & E. Africa	<a href="#">UVRI, Uganda</a>

#	Name of candidate	Project	Institutional Affiliation
4	Ms. Gurdeep Jaswant	Establishing rabies genomic sequencing capacity and reference repository for East Africa	<a href="#">UNITID UoN Kenya</a>
5	Mr. Shabani Mziray	Testing Novel Technologies for Characterizing Emerging and Re-emerging Blood-Borne Infectious Diseases During Epidemics of Non-Malarial Acute Febrile Illness in Tanzania	<a href="#">KCRI, Tanzania</a>
6	Dr. Ireen Kiwelu	Tracking HIV drug resistance mutations across Tanzania to inform National treatment guidelines	<a href="#">KCRI, Tanzania</a>

To kick-start the fellowships, GeMVi held a protocol development workshop at the Garden Hilton hotel, Nairobi, Kenya on 19-20 June 2019.



Participants to the GeMVi Protocol Development Workshop in Nairobi, Kenya on 19-20 June 2019. Left to right Thumbi Mwangi (supervisor, UNITID, UoN), James Nokes (GeMVi Director), Sam Kinyanjui (Director IDEAL), Gurdeep Jaswant, Irene Kiwelu, Prossy Namuwulya, Alfred Ssekagiri, Shabani Mziray (GeMVi Fellows) and James Abuje (GeMVi Project Manager).



## 2<sup>nd</sup> Round of Fellowships

**GeMVi** Application of Genomics and Modelling to the Control of Virus Pathogens.

**Application for Research Fellowships now open**

GeMVi is looking to recruit East African Research Fellows for up to 4-9 months, with a focus on enhancing the Fellow's skills in pathogen sequencing or predictive modelling applied to local public-health problems.



**Deadline extended to 31 October 2019**

For more information: <https://kemri-wellcome.org/gemvi/>

## Events

### Warwick mathematical modellers visit to East Africa.

Modellers from the [Zeeman Institute](#), University of Warwick, were hosted by the GeMVi team at [KEMRI-Wellcome Trust Research Programme](#). The mission was to find out more on the research of the [Virus Epidemiology and Control \(VEC\) group](#) and other Programme scientists, improve their understanding on sequencing and phylogenetic methods, and engage with mathematical modellers from local and regional universities.

Dr. John Kitayimbwa, from Makerere University and Dr. Cameline Orlando, a GeMVi Research Fellow (Round 2), from Maseno University visited to talk on future collaborations (for GeMVi). In October, the modelling group visited Maths Departments at the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology and Strathmore University.

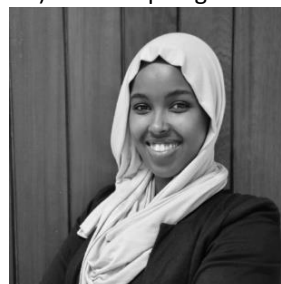
## Staff Updates



Everlyn Kamau

GeMVi Research Officer, Everlyn Kamau, has been awarded an Oxford NDM DPhil studentship in the UK and leaves the project end of September. Many congratulations and good luck in your new studies. Everlyn will be replaced by Khadija Said who has a background in Microbiology and Biotechnology (University of Nairobi), Bioinformatics and Molecular Genetics (University of Leicester) and a postgraduate

diploma alumnus from [The Initiative to Develop African Research Leaders \(IDeAL\)](#). Khadija will support the molecular diagnostics, sequencing and bioinformatics aspects of the project for a range of viral pathogens relevant to human health including for example, rabies, measles, rotavirus, and a range of respiratory, arbo and enteric viruses.



Khadija Said

## CONTACT

Email: [sukhwinder.soggi@warwick.ac.uk](mailto:sukhwinder.soggi@warwick.ac.uk); [jabu@kemri-wellcome.org](mailto:jabu@kemri-wellcome.org)

Website: [www.kemri-wellcome.org/gemvi](http://www.kemri-wellcome.org/gemvi)



**Funding Statement** The research was commissioned by the National Institute for Health Research using Official Development Assistance (ODA) funding.

**Disclaimer** The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.