



2015 BHEARD Scholar
Duncan Gitonga Ithinji

Profile

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| Country of Study: | United States of America |
| University: | Washington State University |
| Department: | Paul G. Allen School for Global Animal Health |
| Student Position: | Graduate Research Assistant—Ph.D. |
| Hometown: | Nairobi, Kenya |
| Home Institution: | Kenya Agricultural and Livestock Research Organization |
| Home Position: | Research Officer |
| Mentored By: | Home: Njenga M. Kariuki USA: Hector C. Aguilar, Associate Professor, Washington State University |

Research Area: Immunology and Infectious Diseases

BHEARD PROGRAM START DATE: January 2016

UNDERGRADUATE EDUCATION: BVetMed., University of Nairobi, Kenya

GRADUATE EDUCATION: M.Sc., Veterinary Microbiology (Virology), University of Nairobi

RESEARCH INTERESTS: Duncan’s research interest is on virus diseases. Diseases caused by viruses both in humans and animals remain an economic burden and public health risk worldwide. Vaccine development and vaccination are largely the most effective approaches to control virus diseases. His career is built around immunology and vaccine development for viruses affecting sheep, goats and cattle which at times are zoonotic.

At Washington State University, Duncan aims to produce a Virus-like particle (VLP) vaccine incorporating attachment and fusion glycoproteins for Nipah virus (NiV), Hendra virus (HeV) and Ebola virus (EBOV) on one hand, and a second one incorporating glycoproteins for Rift valley fever virus (RVFV), Peste des petits ruminants virus (PPRV) and the goat pox virus (GPV). The NiV-HeV-EBOV VLP vaccine will be tested in the United States while the RVFV-PPRV-GPV VLP vaccine will be tested in Kenya.

Earlier in Kenya, Duncan was engaged in testing of RVFV recombinant vaccine, thermostabilizing attenuated PPRV vaccine and epidemiological studies on PPRV and Foot and Mouth Disease virus (FMDV).

PERSONAL STATEMENT: Duncan’s goal is to be an accomplished researcher in livestock virus diseases that pose economic challenges and public health risk.

WHEN I AM NOT WORKING I ENJOY: Duncan enjoys reading materials on sustainable environmental management and participating in activities that lead to a better environment. He participates in community and farmers' education groups that impact knowledge on animal health and production.