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1.0 SUMMARY OF SKILLS AND COMPETENCES

- Demonstrable leadership experience of working with international organizations in scientific research having worked with the United States Centers for Disease Prevention and Control (CDC) in Kenya as a Deputy Laboratory Director and currently as the co-lead of the global Women for One Health (WfOH) network.
- Effective in the design and delivery of enhanced laboratory systems and diagnostics in Kenya improving research and quality in public health.
- Mastered the art of engaging various stakeholders including government agencies, research institutions, academia, private business entities and the community through effective communication and collaboration while addressing the projects milestones, successes and challenges.
- Experienced mentor having guided and supervised post graduate and undergraduate students at the university as well as academic, laboratory, and support staff.
- Proven ability of working and leading a multicultural team with effective skills to drive the team towards a high-performance culture.
- Effective skills to fund raise through the development of concept notes and following through with funding proposals for research projects.

2.0 PROFESSIONAL QUALIFICATION

Academic qualifications

2007	University of Florida, USA	Microbiology and Cell Science	Doctor of Philosophy (PhD)
2001	University of Nairobi, Kenya	Biochemistry	Master of Science (MSc)
1995	University of Nairobi, Kenya	Biochemistry and Zoology	Bachelor of Science (BSc).

Other selected professional qualifications

2018	Ohio State University/UON	Applied Leadership and Management	Certificate
2012	US Centers for Disease Prevention and Control (CDC)	Laboratory Design	Certificate
2010	Emory University/CDC	Epidemiology in Action	Certificate

3.0 PROFESSIONAL EXPERIENCE

2021 – 2025: Co-Principal investigator, CDC-RFA-IP21-2101 grant

The grant supports surveillance and response to avian and pandemic influenza and other respiratory pathogens in Kenya.

- Working in a consortium lead by the Henry Jackson Foundation Medical Research International (HJFMRI) in providing technical support to the Kenya Ministry of Health (MOH) in surveillance for influenza and other respiratory pathogens.
- Technical lead in providing support to the National Influenza Centre (NIC) on laboratory diagnosis and systems for detection and characterization of influenza, SARS-COV2, Respiratory Syncytial (RSV), and other respiratory viruses.
- Capacity building at the Kenya National Public Health Laboratories for full genome sequencing and bioinformatics including working with development partners in equipping the laboratory with appropriate equipment for NextGen sequencing and bioinformatics, leading training of 16 laboratory technologists and technicians in sequencing and bioinformatics.
- Support supervision and training of surveillance officers at all the 10 influenza sentinel surveillance sites on identification of cases, consenting, data and sample collection, handling and testing for influenza, SARS-COV2 and other respiratory pathogens.

2021 – 2025: Co-investigator Capacitating One Health in Eastern and Central Africa (COHESA)

- Lead the team at the University of Nairobi implementing One Health solutions. This involves resource mobilization, collaboration and networking with relevant national and subnational government entities, academia, research institutes and the private sector.

2024: Co-lead Women for One Health (WfOH) Network

- Co-lead of the global WfOH network, which supports and mentors women and other marginalized groups across the world to be adequately represented and participate fully in One Health policy, practice and research.

2007 to date: Senior Lecturer, Department of Biochemistry, University of Nairobi, Kenya

- Promoted to the level of Senior Lecturer in the Biochemistry department in recognition of good performance in the previous role and meeting the requirements.
- An ardent advocate of capacity building in and implementation biorisk management practices in health as indicated the intensive work done as part of the team of animal,

human, and environmental health professionals who developed the Kenya Laboratory Biorisk Management Curriculum (KLBRMC) using a One Health Approach (2019).

- Worked with a team of fellow biorisk management professionals to train 73 human, animal, and environmental health professionals from five counties in the arid and semi-arid lands (ASALs) in Kenya on biorisk management using the KLBRMC (2021 - 2022).
- Sixteen years-experience in teaching and mentoring undergraduate, masters, doctorate students as well as supervising graduate students' research.
- Co – contributor to the team of experts that developed the Kenya National Brucellosis Prevention and Control Strategy (2021-2040)
- Co – contributor to the team of experts that developed the Kenya National Anthrax Prevention and Control Strategy (2021 – 2036).
- Conducted surveillance in zoonotic pathogens in animals and humans in Kenya resulting in over 25 scientific publications in peer-reviewed journals.
- Successfully developed the initial funding proposal as part of a team of research scientists that resulted in the French government funding for building of the University of Nairobi Engineering and Science Complex (2016)

2009 – 2014 Deputy Laboratory Director, CDC-Kenya

Diagnostics and Laboratory Systems Program, Global Health Security Division

Infectious pathogen surveillance, diagnosis and research

- Part of a team of experts that led to the description of human influenza seasonality in Kenya, characterization of circulating influenza subtypes and strains, genetic typing for drug resistance/susceptibility, coordination of specimen shipping to the WHO Collaborating Center at CDC-Atlanta and reporting data to the Global Influenza Response Systems.
- Participated in active surveillance and characterization of influenza viruses circulating in poultry and swine in Kenya.

Laboratory diagnosis of pathogens of public health concern

- Lead the team of laboratory staff responsible for identifying and characterizing causative agent(s) for infectious disease as part of surveillance and outbreak response.
- Lead the laboratory team that supported several infectious disease outbreaks including the influenza A/H1N1pdm09 pandemic in Kenya and the eastern Africa region, several dengue fever outbreaks, hepatitis E virus in Kakuma refugee camp in Northern Kenya and Hepatitis A outbreaks.

Capacity Building to Strengthen Laboratory Systems

- Lead the team that enhanced Laboratory Quality Management Systems (LQMS) in the DLSP laboratories resulting in ISO 15189:2012 accreditation.

- Engaged in the enhancement of laboratory systems at the Kenya National Public Health including at the National Influenza Center and the Viral research laboratory at the Directorate of Veterinary Services through capacity building and resource support.
- Lead capacity building for diagnostics and laboratory systems for the microbiology laboratory at Kibera slum to enhance patient care and infectious disease surveillance.

Funded Research and Program activities

Conducting research on zoonotic pathogens of public and veterinary health importance supported by the following grants.

- 2021 – 2025: Co-investigator, CDC-RFA-IP21-2101 grant
Project title: Surveillance and response to avian and pandemic influenza and other respiratory pathogens in Kenya.
- 2019 – 2022: Co-investigator LEAP-AGRI grant
Project title: A multi-sectoral strategy for brucellosis control in Eastern Africa
- 2012 – 2014: Principal investigator, Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) grant
Project title: Determining the prevalence of brucellosis in livestock in selected pastoral and agro-pastoral regions of Kenya.
- 2012 -2013: Principal Investigator, Grand Challenges Exploratory Initiative
Project Title: Simultaneous Screening of 21 respiratory pathogens

4.0 SELECTED AWARDS AND RECOGNITION

- Henry Jackson Medical Research Internation (HJFMRI), Certificate of Appreciation for contributing to research with international impact (2022).
- Department of State, United States Meritorious Honor Award for exemplary public health leadership in epidemiology, diagnosis and training of frontline medics and health officers to the outbreak of Dengue Fever in Somalia and Kenya (2013).
- Certificate of appreciation for exemplary contribution to the early detection and rapid response the Dengue Fever outbreak in Kenya's coastal region (2014).
- Cash Award in recognition of the CDC influenza team who were critical in the preparedness and response efforts for influenza A/H1N1 pandemic in Kenya and the surrounding regions (2011).

5.0 PUBLICATIONS

Full publication list: <https://scholar.google.com/citations?user=ks0SrBoAAAAJ&hl=en>