# PATIENCE WAMBUI MAINA

Curriculum Vitae

#### **Contact information**

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#### **Education**

Master of Biotechnology - clinical microbiology

Royal Melbourne Institute of Technology University (RMIT), Australia (2012)

**Bachelor of Biochemistry** 

University of Nairobi (2009)

# Other training

Diploma at MSc. level, Microbial food quality and safety – Analytical methods University of Copenhagen, faculty of health and medical sciences (2017)

HAACP Internal Auditor, SGS Kenya (2016), HAACP awareness SGS Kenya (2016), ISO 17025:2005 internal auditor, SGS Kenya (2017), Certificate, Laboratory training on isolation, antibiotic susceptibility testing and molecular characterization of foodborne bacteria using one health approach, FAO (2018)

#### **Technical specialties**

# Aseptic techniques in microbiology

Diagnostic testing

Microscopy and bacterial staining

Enumeration and identification of bacteria

Diagnostic biochemical testing on enteric bacteria

Microbiological food safety management

Use of selective/chromogenic media

Antigen detection

Antibiotic assays (E-test, VITEK)

Validation and verification of new diagnostic methods

#### Work experience

August 2013 to Present: Food Microbiologist, Kenya Plant Health Inspectorate Services (KEPHIS)

KEPHIS is the government parastatal responsible for assuring the quality of agricultural inputs and produce to prevent adverse impact on the economy, the environment and human health.

My role is primarily responsible for the analysis of food and water for microorganisms to ensure food safety for both domestic consumption and export trade.

#### Responsibilities:

- Farmer awareness training on safe use of pesticides
- Analysis of E. coli, staphylococcus aureus yeasts and mould salmonella in food and water
- Routine testing of fruits and vegetables in Kenyan markets to ensure compliance to microbiological limits
- Conduct food safety audits for export companies trading in beans and peas with pods to ensure they comply with EU regulations
- Validation of analytical procedures as required by ISO 17025:2017
- Integrating the Food Microbiology Laboratory into the Laboratory Quality Management System.
- o Data analysis and report preparation as required.

# Testing and increasing compliance with food safety standards

- Global Gap
- HACCP and GMP
- o BRC Global Standard
- o KEPHIS Act 2012
- o HCDA order 190 2011
- o PCPB Act CAP 346
- Agricultural Export produce Act CAP 319
- o CAC/RCP 53-2003
- 0 Regulation (EC) 852/2004
- o ISO 22000/2005
- Regulation (EC) 128/2009
- Regulation (EC) 178/2002

March 2012 to July 2012: Internship, National Measurement Institute (NMI), Department of Food Microbiology Laboratory, Melbourne, Australia.

NMI is the leading Australian measurement body responsible for biological, chemical, legal, physical and trade measurement.

# Responsibilities:

- Verification of National Association of Testing Authorities (NATA)-Australia accredited rapid diagnostic methods
- Conducted routine testing of over 100 samples of imported products to confirm compliance with Australian microbiological limits
- Testing products for the presence of allergens, microbiology food spoilage, microbiology pathogens, toxins, foreign objects

Jan 2012 to March 2012: Research Assistant, Kenya Medical Research Institute (KEMRI), Microbiology Laboratory.

KEMRI is a state corporation responsible for carrying out health research in Kenya.

### Responsibilities:

- Preparation and maintenance of bacterial stock cultures
- Antimicrobial susceptibility
- Preparation and sterilization of media
- DNA extraction and PCR running
- Preparation and processing of paper work as required

#### **REFEREES**

## Peter Kamuti

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# Leanne Kapadia

Technical Development Scientist, NMI, Australia

Email: leannekapadia@gmail.com

## Dr. Samuel Kariuki

Director, Center of Microbiology Research, KEMRI

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