

# CURRICULUM VITAE

SEPHA NYATICHI MABEYA  
Jomo Kenyatta University of Agriculture & Technology  
School of Biomedical Sciences  
Department of Medical Microbiology  
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## Personal Details:

**Name:** Sepha Nyatichi Mabeya  
**Place of Birth:** Nyamira  
**Sex:** Female  
**Marital Status:** Married

## Education Background

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2017: PhD (ongoing)	Medical Virology
May 2014-Nov 2016	Msc in Infectious disease and Vaccinology, Jomo Kenyatta University of Agriculture & Technology
May 2011-Jun2013	Bsc Medical Microbiology, Jomo Kenyatta University of Agr & Technology: First class Honors
Sep 08-Nov 2009	Higher National Diploma in Applied biology-Microbiology, Kenya Polytechnic University College
April – June 2008	Certificate in HIV/AIDS Counseling
2004 – 2006	Diploma in Applied Biology, Kenya Polytechnic College
Jan – March 2002	Certificate in Computer studies, Nairobi Institute of Technology (IAT)
1997-2001	KCSE – O’ Level, Nyabururu Girls High School
1988-1996	KCPE, Rianyegenchaga Primary School

## Other qualifications

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Computer packages; Ms Word, Ms Excel, Ms power point, Ms Access, SSPS for word, Email, Internet, Ms. outlook Acrobat reader etc.

## **Work Experience**

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**22<sup>nd</sup> may 2017 to date: Tutorial fellow** medical microbiology department, Jomo Kenyatta University of Agriculture & Technology, Nairobi, Kenya

**Oct 19<sup>th</sup> 2013 to 21<sup>st</sup> may 2017: Teaching Assistant** Department of Medical Microbiology, Jomo Kenyatta University of Agriculture & Technology, Nairobi, Kenya

**Jan 2013 to Oct 2013:** Kenya Veterinary Vaccine Production (**KEVEVAPI**), Headquarters Industrial area, Nairobi

**Attached:** Development of Foot and Mouth Virus vaccines for Veterinary animals

**April 2010 to May 2011: Laboratory Technologist Nyumbani diagnostic Laboratories, Karen**

Involved in routine diagnosis, hematological test using MS4, Medonic and Coulter machines, FACS Calibar for CD4/8 phenotyping, QBC, parasitological tests and clinical chemistry tests. Pointe 180 and Eurolyser machines for Biochemistry, Humalyte for electrolytes. Thyroid function test, T4 T3, LFTs, RFTs cardiac enzymes, cancer markers, fertility hormones & endocrinology by automated analyzer. Microbiological bacterial, fungal isolations & viral diagnosis ELISA, western blot electrophoresis, viral load, RIA-IgM-IgG for Rubella, Toxoplasma, Cytomegallo viruses and Immunological or serological tests tissue processing of biopsies with fewer autopsies etc.

**May 2010**

Genetic analyzer (DNA sequencing), Training for one week.

**May 2007 to April 2010: Laboratory technologist, KEMRI, Centre for Virus Research**

Involved in MSF HIV viral loads, CD4/CD8 count follow up research project.

Responsibilities in lab procedures execution, data compilation, procurement and management etc

**Other includes:**

Laboratory technologist, Kenya Medical Research Institute (KEMRI) CVR, Human Immunodeficiency Virus (HIV) laboratory, where I am involved with the HIV Early Infant Diagnosis (EID) project, which involves following techniques:

- Extraction of DNA from Dried Blood Spots (DBS).
- Reverse Transcription – Polymerase Chain Reaction (RT-PCR).
- Detection by Enzyme Linked Immunosorbent Assay (ELISA).
- Gel electrophoresis
- Rapid tests for HIV by utilizing Unigold, Determine and SD Bioline kits.
- Determination of Viral Load by utilizing Nuclisens Easy Q Kit.
- Separation of Peripheral Mononuclear Cells (PBMC).

- Ability to practice general laboratory safety by following Standard Operating Procedures (SOPs).
- Preparations of media for use in vector cloning and bacterial subcultures.

**April 2006-Dec 2006: University of Nairobi, Dept of Zoology, Chiromo Campus**

Involved in preparation practicals for undergraduates students on immunological, Parasitology, Microbiological practicals.

**August-Dec 2005: Kenya National Museums of Kenya**

- **Entomology lab:** Involved in collection, identification and preservation of butterflies, insects/ vectors involved in disease transmission.
- **Dept of Molecular genetics**
- Molecular techniques/ protocols involved in various genomic research: DNA extraction and purifications, PCR and gel electrophoresis analysis.

**Workshops, trainings and ToT Facilitations**

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**Feb 11<sup>th</sup> 2009** Real Time PCR training, Roche HIV CRV KEMRI HQ Nairobi

**5<sup>th</sup> -9<sup>th</sup> Oct 2009** BD FACS Calibur, CD4 Good Lab Practice, operation Training, KEMRI/BD training centre Nairobi, Kenya

**Aug 22<sup>nd</sup> 08** Real Time PCR and its applications in diagnostic and Research, Roche: Mayfair Hotel Nairobi

**July 20-24<sup>th</sup> 2009**

Participated in the Training of Trainers on aspects of HIV infection, Early infant diagnosis (EID), PMTC and Counseling as a facilitator at Central Park hotel Nairobi, funded by Pathfinder

**1<sup>st</sup> June – 24<sup>th</sup> July 2008**

Involved in Survey of HIV rapid test kits nationwide funded by Medical Service Health (MSH).

**March – April 2008**

Participated in the Training of Trainers on HIV Early infant diagnosis (EID) as a facilitator at Baobab Hotel, Mombasa, Funded by Clinton Foundation and NASCOP

**12<sup>th</sup> to 30<sup>th</sup> November 2007**

Participated in the Training of Trainers as a facilitator at Kericho Tea Hotel for Early Infant Diagnosis (EID) for participants including: nurses, laboratory technicians, and clinicians, coming from all the districts in Rift Valley province in Kenya

**May – August 2007**

Industrial Attachment at Kenya Medical Research Institute (KEMRI), Nairobi where I performed laboratory procedures carried out in the following laboratories.

- HIV/P3 Maximum Containment laboratory, where I performed HIV Diagnostic techniques such as PCR and ELISA.
- Hepatitis B Virus laboratory, where I performed screening and confirmatory tests in plasma of patients.
- Human Papillomavirus laboratory, where we obtained PAP smears from patients and tested for the detection of HPV.
- Rotavirus laboratory, where patient stool samples were detected for the presence of the virus by utilizing sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE).
- KEMRI/WHO Measles laboratory, where IgM specific antibodies against measles were detected by following the ELISA protocol.
- Polio Surveillance laboratory, where we harvested polio virus from stool samples of patients, and cultured in different cells lines. The cytopathic effect (CPE) on the cells was assayed as a measure for the presence of polio virus.
- Tissue culture laboratory.

## Grants /Awards

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- Government scholarship/JKUAT for Msc studies Ksh150,000
- NACOSTI grants for Msc Ksh 200,000
- JiCA-Africa for Msc Ksh 250,000
- JiCA-Africa for PhD Ksh 300,000
- Government scholarship/JKUAT for PhD studies Ksh200,000

## Research and publications

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1. Mabeya SN, C Ngugi, AK Nyamache, R Lihana. Predominance of Hepatitis B Virus genotype A among treated HIV infected patients experiencing high HBV drug resistance in Mama Lucy Kibaki comprehensive care clinic in Nairobi, Kenya. *AIDS Res Hum Retroviruses*. 2017 Sep; 33(9):966-969. doi: 10.1089/AID. 2017.0019. Epub 2017 Apr 18 Mabeya SN, C Ngugi, AK Nyamache, R Lihana.
2. Mabeya SN, C Ngugi, AK Nyamache, R Lihana. Prevalence of Hepatitis B virus infections among HIV infected individuals in Nairobi, Kenya. *East African Medical Journal* 93 (6), 221-225

- 3 Msc thesis: Seroprofile, genetic diversity and drug resistance of hepatitis b virus among HIV infected individuals attending Mama Lucy Kibaki comprehensive care clinic in Nairobi, Kenya

### Professional Membership

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- IPNET, Kenya
  - American society of Microbiology
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○ **REFEREES:**

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