

1.1 PERSONAL PROFILE

1.2 Personal details

Name: Anthony Kebira N
PF No: 7412
Department: Biochemistry Microbiology & Biotechnology
Designation: Senior Lecturer/Research scientist
Email: nyamache.anthony@ku.ac.ke
Mobile: 0735757560
Area of Specilization: Medical Microbiology
Research Interest: Infectious disease: transmission dynamics and antimicrobial/viral drug resistance
Google scholar: <https://scholar.google.com/citations?user=6H4RKIIAAA&hl=en>
ORCID ID: 0000-0002--6168-881X

1.1.2 ACADEMIC & PROFESSIONAL QUALIFICATIONS

	DEGREE	MM/YY	FIELD OF STUDY
Universidad Anahuac, Mexico	MSc	2021	Global Bioethics
Indian Medical Institute, Virology Unit, India	Post doc	2013	HBV/HCV/HIV
Jomo Kenyatta University of Agri. & Technology, Kenya	PhD	2011	Medical Virology
Jomo Kenyatta University Of Agr. & Tech, Kenya	M.Sc	2008	Medical Virology
Jomo Kenyatta University of Agric. & Tech, Kenya	B.Sc	2004	Medical Microbiology
Technical University of Mombasa, Kenya	Diploma	1999	Medical lab Sciences

PART 1.1.2 (b) OTHER QUALIFICATIONS

- Computer packages ; Ms Word, Ms Excel, Ms power point, Ms Access, SSPS for word, Ms. outlook etc.
- Bioinformatics tools competency: BEAST, MEGA4-7, BioEdit, PHYLIP, Neighbour joining, ClustaW W/X, Monkey, BLAST, geno2pheno, ds Kernel, C-PSSM, phylm, data mining etc

PART 1.1.2 (c) PROFESSIONAL COURSES

- 7-8th May 2015:** TDR-WHO follow- up Workshop on Grant application, Scientific Writing and Public science communication Workshop, Karen Nairobi.
- 16-19th Sept 2014:** WHO-TDR manuscript and research grant writing workshop, **Karen Nairobi.**
- Jan-March 2013:** **Institute of Biomedical Technology, National Research Institute, Pisa Italy:** HIV viral tropism using Ghost cells in tissue culture.
Supervisor: Dr. Diana Boraschi
- 17-21st /06/ 13:** First workshop on Mathematical modeling for science research and development, Kenyatta University
- 13-17/08/12:** Advanced genomics and bioinformatic workshop: Viral and bacterial metagenomics and next generation sequencing, ILRI, Nairobi Kenya
- 5/05-1/6/2012:** AuthorAID-IFS Workshop on Scientific Writing at The African Academy of Sciences, Nairobi, Kenya, 28 May–1 June 2012
- 29.7.11-19.8.11:** **University of Younde1,** Soft skill training, grant applications, communications, project management.

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- Supervisor:** Prof Wilfred Mbacham
- 1--19/07/11:** Project implementation, grant application and management soft skills workshop, University of Younde1 Cameroon
- 1.05.11-1.07.11:** **Mbeya Medial Research Programme, Mbeya, Tanzania.** Real Time PCR for Mycobacterium complex detection and drug resistance testing, TB culture, BACTEC and drug resistance testing, T-spots, ELISpot and immunological profiling.
Supervisor: Dr. Leonard Maboko, Dr Lucas Maganga
- 1.11.10-19.12.10:** **University of Cape Town, institute of infectious diseases and molecular medicine, ICGBE** Laboratory training on techniques in; ELISpot, PPAA, cytokine and proliferation assays RT-PCR and cell culture techniques and DNA sequencing.
Supervisor: .Prof Iqbal Parker
- April 2010:** **University of Makerere, Department of Medical biochemistry.** Poverty related diseases/ Infectious diseases molecular disease mechanisms and applications in poverty reduction.
Supervisor: Prof Fred Kironde
- 19/10/09:** 2010 Scientific Strategic Plan Consultation on AIDS Vaccine, Paris France
- 18-19th /10/09:** Standardized Measurement of Neutralizing Antibodies to Advance HIV Vaccine Development, Workshop 18-19 October 2009 Paris France
- 1.08.08-1.05.09:** **University of Stellenbosch, Medical Virology division, Promoter Prof Susan Engelbretch.** Advanced techniques in Molecular characterization of HIV genome: Molecular biology techniques: PCR, vector cloning, DNA Sequencing, Allele specific PCR sequencing, ultra deep sequencing, Phenotypic and genotypic HIV drug resistance testing.
Supervisor: Prof Susan Engelbretch
- 21/07/09:** Workshop on Scientific Writing *Publish or Perish* by Journal of the International AIDS Society, Cape Town South Africa
- 22-26/06/09:** 2nd Workshop on Pharmacogenomics & bioinformatics, Pharmacogenetics of Drug Metabolism, Nairobi, Kenya, University of Nairobi, Kenya, African Institute of Science and Technology, Zimbabwe
- 4th-5th/05/09:** Introductory course in Bioinformatics, CGRI/ ILRI Nairobi Kenya
- 26-27th/03/09:** Science and technology-Europe Africa Project Workshop, European Union's 7th framework programme for Research, Hilton Hotel Nairobi Kenya
- 10th /02/09:** Emergency First AIDS, training, St John Ambulance Nairobi
- 19th-24th01/09:** Principle of HIV research, application in today's research training course, University of Washington, Centre for HIV/AIDS research, Seattle USA & Centre for clinical research, Kenya Medical Research Institute KEMRI Headquarters Kenya
- 03/10/08:** Use and application of QiaCube automated RNA/DNA extractions from viruses, bacteria, fungal, PBMCs, Plasma and body fluids. Division of Medical virology, University of Stellenbosch, Cape Town South Africa
- 5/09/08:** HIV drug resistance and its implication in clinical practice University of Western Cape, Cape Town South Africa
- 22/08/08:** Real Time PCR and its applications in diagnostic & research Division of Medical virology, University of Stellenbosch, Cape Town South Africa

1.1.2 (d) FELLOWSHIPS

- 2013:** **Post doctoral fellow:** HBV/HCV genetic diversity and evolutionary trends among HIV co infected populations of Kenya" under supervision of Dr. Runu Chakravarty, by Indian Government, ICMR, Virus Unit, Kolkata, India
- 2009-2013:** **Fellow:** Poverty Related Diseases (PRD) College, an International programme in Biomedicine and Development under the European Union Framework Programme 7 [EU-FP7]. (<http://www.prd-college.eu>).
- 2008-to 2011:** **Doctoral research fellow: CVR, KEMRI, Kenya & University of Stellenbosch South Africa Project:** Evaluation of HIV evolution and its role in development of antiretroviral drug resistance in Nairobi COHORT
- 2006-to 2008:** **Research fellow, CVR, KEMRI, Kenya. Project:** Evaluation of Transmitted drug resistance strains among Kenyan population

3.1 RESEARCH INTERESTS

- Viral Transmission dynamics
- HIV-1/HBV/HCV confections ; sexual Networks, Evolution, history and origins, Phylogeography and Phylodynamics
- HIV-1 and HBV Genetic Diversity and Antiretroviral Drug Resistance studies

1.1.3 Employment History/Work experience

Feb 2016 to date: **Senior Lecturer:** Teach Undergraduate and Postgraduates: Departments: Microbiology/ Medical Laboratory sciences, Pharmacy, Nursing, MBChB: Units Both basics and advanced course in Medical Microbiology, Virology, Mycology and Immunology

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24/7/2012-Nov 2015: **Lecturer:** Teach Undergraduate and Postgraduates: Departments: Microbiology/ Medical Laboratory sciences, Pharmacy, Nursing, MBChB: Units Both basics and advanced course in Medical Microbiology, Virology, Mycology and Immunology.

5/ 2010-7/ 2012: **Tutorial Fellow** Undergraduate: Departments: Microbiology/ Medical Laboratory sciences, Pharmacy, Nursing, MBChB: Units Both basics and advanced course in Medical Microbiology, Virology, Mycology and Immunology.

2010 to date: **Part-time lecturer** JKUAT and Great Lakes University- Nairobi Campus: Departments of Medical lab science, Public Health & Zoology and Nursing for Great University of Kisumu: Units; *Medical Microbiology, Clinical Virology and Immunology units*

2005-2010: Laboratory Technologist, Dept of /Medical Microbiology, Botany JKUAT

1/2005-5/2005: **Research Technologist:** University of Washington/ University of Nairobi HIV/AIDS, CTL Collaborative research.
Project: Evaluation of HIV-1 immune responses positive mothers and their infants and determinations of disease progression markers PI: Prof. James N Kiarie, MD, MMED, MPH

2003-2005: **Research assistant,** African Medical Research Foundation, Nairobi Office Kenya Monitoring of HIV drug naïve and experienced patients, Prevention of mother to child HIV projects

2001-2003: Laboratory in-charge, Maximum Medical Centre, Nairobi, Kenya

2000-2000: Laboratory histotechnologist, Nairobi City Mortuary, Nairobi, Kenya

1998- 2000: Laboratory technologist, Aga Khan Hospital P.O Box 30270 Nairobi, Kenya

1.3.1 Student Evaluation

1.3.2 Trainings in Higher Education

1.3.3 Supervisors

Undergraduate Projects Completed

SN	Student Name.	Degree	Research Project	Supervisors	status
1)	Chacha G. Alphose.	BSc Microbiology	Antimicrobial susceptibility profiles of bacteria isolated from urine causing urinary tract infection from patients visiting Kenyatta University Health Unit.	Dr. A. Kebira	Graduated 2011
2)	Collins Ogari.	BSc Microbiology	Prevalence of <i>Shigella</i> species and their antimicrobial resistance patterns among patients visiting Kenyatta University Health unit, in Nairobi Kenya	Dr. A. Kebira	Graduated 2011
3)	Gachanja E. Wambui.	BSc Microbiology	Prevalence of HIV-1 in infants aged 0-18 months at Kangemi health centre and Mbagathi Hospital, Nairobi Kenya	Dr. A. Kebira	Graduated 2011
4)	Osborn Khasabuli.	BSc Microbiology	Isolation and molecular characterization of antibiotic producing actinomycetes in virgin soils of Kenyatta University	Dr. A. Kebira	Graduated 2011
5)	Ong'era B. Caroline	BSc Microbiology	Detection and determination of antibiotic residues in beef its safety for human consumption using drug residue quantification method.	Dr. A. Kebira	Graduated 2012
6)	Kabiru Salome Wairimu	Bsc	Rotavirus detection and	Dr. A Kebira	Graduated

		Microbiology	prevalence establishment from diarrheic stool samples in Kiambu County		2015
7)	Methuselah N. Mang'erere	Bsc Microbiology	Microbial quality of raw vegetables prepared and sold by street food vendors along Kenyatta university environs	Dr. A Kebira	Graduated 2015
8)	Azenga Kivihi Kevin	Bsc Microbiology	Microbial quality of water used by KM residents in Ruiru sub county	Dr. A Kebira	Graduated 2015

1.3.4 Supervision of Postgraduate Students

1.3.4.1 a) MSc SUPERVISION COMPLETED

SN	Student Name & Registration No.	Degree	Research Project	Supervisors	status
1.	Njue J. Kinoti	Msc-Infectious diseases (Virology), KU	Prevalence of HIV infection among <i>catha edulis</i> (Miraa) abusers in Meru	Dr. A. Kebira Dr. Lucy Kamau	Graduated 2013
2.	Wahome C. Nyawira	Msc – Microbiology, KU	Bacteriological assessment of ground water contamination through <i>salmonella</i> and <i>shigella</i> isolation and determining prevalence of antibiotic resistance in Ongata Rongai	Dr. A. Kebira Prof. P Okemo	Graduated 2013
3.	Waihaka P. Njenga	Msc-Microbiology, KU	Risk factors and control methods of salmonellosis among patients visiting selected health facilities in Nakuru North district, Kenya	Dr. A. Kebira Dr. J. Maingi	Graduated 2013
4.	Rono K Benard	Msc Microbiology, KU	Determination of bacteriological quality of fresh beef post- harvesting in Nyagacho slum, Kericho, Kenya	Dr. J Maingi Dr. A. Kebira	Graduated 2014
5.	Mwangi Z Maingi	Msc-Infectious diseases (Virology), KU	Prevalence of Cytomegalovirus among pregnant women attending Thika Level 5 District hospital, Kiambu County	Dr. A. Kebira Dr. S. Runo	Graduated 2014
6.	Moto J. Ndunge	Medical Microbiology-Mycology, KU	Prevalence of <i>Trichophyton</i> and <i>Microsporium</i> species causing tinea capitis in children aged between 3-14 years in Mathare informal settlement, Nairobi	Dr. A. Kebira Dr. J Maingi	Graduated 2014
7.	Seila I Nyamwaka	Msc-Microbiology-Mycology, KU	Determination of Fungi and factors associated with their growth on sun ried <i>Rastrineobola argentea</i> in Gucha south, Kisii County, Kenya	Dr. A. Kebira Dr. J Maingi	Graduated 2014

8.	Schifra Uwamungu	MSc Medical Lab sciences- Hematology, JKUAT	Coagulation factors levels in fresh frozen plasma in Rwandese.	Dr. A. Kebira KU Dr. S. Njoki JKUAT Dr. Florence Masaisa, University of Rwanda	Graduated 2014
9.	Peter K. Laibu	Msc- Microbiology, KU	Determination of microbial composition of pond water and their effects on fish farming in Imenti central, Meru County	Dr. A. Kebira Dr. J Maingi	Graduated 2015
10.	Mutinda Josphat	Msc- Medical Microbiology, KU	Epidemiology of bacterial pathogens of the upper respiratory tract in Kitui district hospital,	Dr. A. Kebira Dr. J Maingi	Graduated 2015
11.	Grace Gachara	Msc- Microbiology- mycology, KU	Genetic diversity of <i>Aspergillus flavus</i> and occurrence of aflatoxin contamination in stored maize across three agro-ecological zones in Kenya." July 2015	Dr. A. Kebira Dr. G.J.B. Gnonlonfin, ILRI, Kenya	Graduated 2015
12.	Omwoyo, H. Nyang'au	Msc Microbiology, KU	The efficacy of medicinal plants locally used within Transmara west district against selected <i>Enterobacteria</i> spp and <i>Candida albicans</i> .	Dr. A. Kebira Dr. J. Maingi	Graduated 2015
13.	John Kibet Kirui.	Msc- Microbiology, KU	Multidrug resistance tuberculosis (MDRTB) a threat to the elimination of tuberculosis in Kenya, a case study of Central province.	Dr. A. Kebira Dr. J. Maingi	Graduated 2016
14.	Peter O. Nyauncho.	Msc Microbiology, KU	Contribution of hospital wastewater to the spread of antibiotic resistance in comparison to non-health institution	Dr. A. Kebira Dr. J Maingi	graduated 2016
15.	Hibert Rachuonyo Opinde:	MSc Microbiology, KU	Antimicrobial activity of crude extracts from some selected medicinal plants on selected enteric bacterial pathogens and <i>Candida albicans</i>	Dr A Kebira Dr. G Gatheri	Graduated 2016
16.	George Gachuhi Tibi	Msc- Med Microbiology, KU	Antimicrobial susceptibility patterns of bacterial uropthaogens isolated from patients in Nakuru level five hospital.	Dr. A. Kebira Dr. J Maingi	Graduated July 2017
17.	Odhiambo W Awuor	Msc-Med Microbiology, KU	Survival rates and prevalence of <i>Campylobacter jejuni</i> and food pathogens in cooked chicken, milk and non-bottled drinking water served in Nairobi fast food restaurants	Dr. A. Kebira Dr. J Maingi	Graduated July 2017

18.	Usagi Betsy Maryanne: I56/CE/23959/2011	MSc Medical Microbiology, KU	Identification and determination of antimicrobial resistance profiles of <i>mycobacterium tuberculosis</i> complex isolates from hiv positive patients in Kisumu County, Kenya	Dr. A Kebira Dr. J. Maingi	graduating 2017
19.	George Gachuhi Tibi	Msc-Med Microbiology, KU	Prevalence of catheter associated urinary tract infections at the Nyeri Provincial General Hospital	Dr. A. Kebira Dr. J Maingi	Graduated 2017
20.	Peris W. Cheche	Msc-Med Microbiology, KU	Prevalence of urinary tract infections among cathetered inpatients in Nyeri county referral hospital	Dr. A Kebira Dr. J. Maingi	Graduated, 2018
21.	Kerubo Willimah Nyabuto	MSc- Med Microbiology, KU	Drug susceptibility of <i>Helicobacter pylori</i> isolated from untreated well water in the peri-urban Timbwani-Likoni.	Dr. A. Kebira Dr. J Nonoh	Graduated, 2018
22.	Caroline Kinya	Msc-Infectious diseases (Virology), KU	Prevalence of HIV-1, Hepatitis B (HBV), Hepatitis C (HCV) and Hepatitis Delta (HDV) Viruses in the Kenyan drug abusers Population.	Dr. A. Kebira Prof. Ngeranwa	Graduated, 2018
23.	Lewa Pole Said	MSc- Med Microbiology, KU	Antimicrobial susceptibility profile of <i>Neisseria gonorrhoea</i> isolates from symptomatic men and men who sex with attending a sexually transmitted disease clinic in Nairobi – Kenya.	Dr. A. Kebira Prof Omu Anzala (UoN)	Graduated 2019
24.	Kasera G Ochieng	Msc-Med Microbiology, KU	Prevalence and genetic diversity of hepatitis A virus among jaundiced patients seeking medical care at coast general hospital, Mombasa county, Kenya	Dr. A Kebira Dr. J Maingi	Dec , 2019
25.	Nyasimi A.Gershom.	Msc- Microbiology, KU	Investigation of microbial qualities of water in Sigor division, Pokot central district.	Dr. A. Kebira Dr. J Maingi	Dec 2019
26.	Lydia Mali Langata	Msc-Med Microbiology, KU	Prevalence of antimicrobial resistant genes in <i>Salmonella</i> isolates from chicken droppings in Nairobi county, Kenya	Dr. A Kebira Dr. J Maingi	Dec 2019
27.	Omondi K Onyango	Msc-Med Microbiology, KU	HBV genetic diversity and coinfection of HCV among HIV infected individuals visiting Siaya hospital, Siaya county, Kenya	Dr. A Kebira Dr. J Nonoh	Dec, 2020

1.3.4.1 b) MSc Supervision on-going

SN	Student Name & Registration No.	Degree	Research Project	Supervisors	Status
1.	Koigi K Peter.	Msc-Infectious diseases (Virology), KU	A comparative study of HIV-1 drug resistance mutation testing using dried blood spots and plasma samples	Dr. A. Kebira Dr. Caroline Nguni, JKUAT	Thesis submitted
2.	Bundi M. Justine.	Msc – Microbiology, KU	Identification and characterization of <i>salmonella</i> isolates in Kisii level-5 hospital and determination of their antimicrobial resistance profiles.	Dr. A. Kebira Dr. J. Maingi	Revising thesis for submission
3.	Muturi S. Njagi	Msc- Microbiology, KU	Evaluation of pathogenic bacteria causing water borne diarrheal diseases along Thiba basin and the level of antibiotics resistance	Dr. A Kebira Dr. J. Maingi	Waiting defense
4.	Peter Wanyama Omanyoo Q139/CE/25984/2014	MPH	Prevalence of parasitic infections and its impact on maternal anemia development among pregnant women attending antenatal clinic, Bungoma County, Kenya	Dr. A. Kebira Prof. Keraka	Thesis submission
5.	Geoffrey Mogaka	Msc-Med Microbiology, KU	Prevalence and genetic diversity of foot and mouth disease virus from 2016 outbreak in Kiambu County Kenya.	Dr. A Kebira Dr. Sangula	Thesis writing
6.	Barasa W Domiano	Msc-Med Microbiology, KU	Intestinal bacterial and parasitic pathogens in diarrhea and non-diarrhea human stools among patients visiting Marsabit district hospital	Dr. A. Kebira Dr. J Maingi	Thesis writing
7.	Chemjor R.Cheboite: I56/CE/10166/04	MSc Med Microbiology, KU	molecular characterization of selected pathogenic bacterial isolates from herbal medicinal products sold in eldoret and marigat, KENYA	Dr. A. Kebira Dr. J Maingi	Thesis writing
8.	Ayore Effie Awuor 156/CTY/PT/32405/2015.	MSc Med Microbiology, KU	Characterization of Bacteria in Blood Samples obtained from patients with Undifferentiated Acute Febrile Illness at Diverse Health Care facilities of Kenya	Dr. A. Kebira Dr. J Waitumbi	Thesis writing
9.	Dinah Muthoni Miriti I56/CE/21651/2012	MSc Med Microbiology, KU	Prevalence of bacterial pathogens associated with respiratory tract infections among patients visiting Meru Teaching And Referral Hospital in Meru county, Kenya	Dr. A. Kebira Dr. J Maingi	Submisted for examination
10.	Noadiah Cherono				
11.	David Onyancha				

12.	Cecilia Kananu				
13.	Beth Maina				
14.	Ngai Dorica Gakii (B.Ed.Sc.) I56/CTY/PT/37351/2016	MSc Med Microbiology, KU	prevalence and antimicrobial resistance profiles of <i>salmonella</i> species and <i>escherichia coli</i> isolates from poultry feeds in ruru kiambu county, kenya	Dr. A. Kebira Dr. O. Omwoyo	Thesis submitted for examination
15.	Mutai Ivy Jepkurui	MSc Bio, KU	Efficacy of diversely isolated lytic phages against multi drug resistant clinical isolates (<i>Salmonella enterica</i> serovar Typhi and Enteroaggregative <i>Escherichia coli</i>)	Dr. A. Kebira Dr. O. Atunga	Data collection
16.	Josiah Judith Mumo Reg.No. I56/39340/2017	MSc Med Microbiology, KU	molecular characterization of foot and mouth disease virus serotype O isolated in Kenya in the years 2018 and 2019.	Dr. A. Kebira	proposal
17.	Ombagi Arwasa Jared Q57/CE/26054/2014	MPH	Assesment the effects of attrition on communit viral load suppression among people living with HIV in Siaya County	Dr. A. Kebira Dr. John Yore	Proposal
18.	Christine Musungi Mbuvi REG. NO: Q139/CTY/PT/33649/2015	MPH	Prevalence and antimicrobial resistance pattern of urinary tract bacterial infections among women of reproductive age attending Kitui referral Hospital, Kitui county, Kenya	Dr A. Kebira Dr. B Musila	Proposal

1.3.4.2 a) PhD Supervision –Graduated

SN	Student Name & Registration No.	Degree	Research Project	Supervisors	status
1)	Esther Wanjiku Muita	PhD- Medical Cytology, KU	Microbial, occupational and lifestyle determinants of cervical cancer in Nakuru County	Dr. A. Kebira Dr. Tom Were Dr. G. Muhoho	graduated Dec 2017
2)	Regina Ntabo	PhD Microbiology, KU	Isolation & Characterization of bioactive endophytic Bacteria associated with selected plants of Kenya's mangrove ecosystem	Dr. J. Nonoh Dr. A. Kebira	Dec, 2018
3)	Lem Edith Abongwa	PhD Med Microbiology, KU	Evaluation of HIV drug resistance, genetic diversity, cytokine profile and hepatotoxicity markers among treated HIV patients in the Northwest region of Cameroon	Dr. A. Kebira Prof. P Okemo Prof. C. Fokunang Prof. j. Torimiri	July, 2019
4)	Domtilah Kyule	PhD	Effectiveness of different	Dr. J. Maingi	July, 2019

		Microbiology, KU	preservations methods on the quality and safety of farmed fish and products developed in Kirinyaga County, Kenya	Dr.E. Mugendi Dr. A. Kebira	
5)	Maureen Musimbi Akolo	PhD Public Health	Linkage, uptake and retention to Pre-Exposure Prophylaxis among HIV negative men who sex with men within University of Manitoba	Dr. O. Osero Dr. A. Kebira	Dec, 2020
6)	Lucy W Karani	PhD Immunology, Kisii University	Molecular chracterisation of human papillomavirus and cyto-immunological profiles among human immunodeficiency virus infected women attending Kisii teaching and referral hospital, Kenya	Dr. A. Kebira	Dec, 2020
7)	Benuel Nyagaka	PhD Immunology, Kisii University	Evaluation of the frequency and immunosenescence of blood lymphocytes among elderly Human Immunodeficiency virus infected patients aged ≥ 50 years in Kisii Teaching and Referral Hospital, Kenya	Dr. A. Kebira	Dec 2020

1.3.4.2 b) PhD Supervision on going

SN	Student Name & Registration No.	Degree	Research Project	Supervisors	status
1.	Moto J. Ndunge	PhD Med Microbiology, KU	Prevalence characterization and antifungal susceptibility patterns of dermatophytes isolated from selected informal settlement of Nairobi, Kenya	Dr. J. Maingi Dr. A. Kebira	Drafting thesis
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1.2 Publications

1.2.1Peer Reviewed Journals

- 1) **Nyamache A.K.**, S.A. Khamadi and M. O Oyaro. Genetic diversity, distribution and co-infections of Hepatitis B virus, Hepatitis C virus, and HIV-1 in Africa: A systemic review. *submitted*
- 2) **Nyamache A.K.** and F. Nindo: Evolutionary history and phylodynamics of HIV-1 subtype A and its epidemics in Kenya. *submitted*
- 3) Lem E. Abongwa, Fokunang C, **A. K. Nyamache**, P. Okemo, L. A. Tchpada, Yengo Clauvis, Takou Désire. Fokam J, Aubain Nanfack, Teto G., and J. N. Torimiro. Clinically Important Mutations in HIV-1 Protease and Reverse Transcriptase Regions Associated to Resistance to Antiretroviral First Line Regimen in Cameroon" *PLoS One Under review*
- 4) Lem Edith Abongwa, Judith Ndongo Torimiro, **Nyamache A.K.**, Paul Okemo; Laure Arlette Tchpada, Yengo Clauvis; Takou Désire, Fokunang Charles: Rates of Drug Resistance-associated Mutations in HIV-1 pol region in Newly Diagnosed Individuals of the North West Region of Cameroon. Submitted under review
- 5) Regina Ntobo, **A.K Nyamache**, W.Lwande, J. Kabii R.S Odhiambo J. Nonoh Antimicrobial activity and GC-MS analysis of bacterial endophyte GD4SAL isolated from the mangrove, Sonneratia alba. *BMC Microbiology Journal*

- 6) Koigi P, Musa Otieno, Caroline Ngugi and **A. K. Nyamache**. HIV-1 genetic diversity and among drug experienced patients in Nairobi, Kenya. *AIDS and Human Retroviruses Journal* under review 2018
- 7) Omondi Kevin Onyango, Gordon Ochieng Kasera, Sepha Nyatichi Mabeya, James Oluoch Nonoh **Nyamache A.K.**, Hepatitis B and C Virus co-infections and genetic diversity among HIV-1 infected individuals in Siaya County, Kenya *East Africa medical journal* accepted
- 8) Gordon Ochieng Kasera, Omondi Kevin Onyango, Sepha Nyatichi Mabeya, John Maingi **Nyamache A.K.**, Hepatitis B Virus genetic diversity and drug resistance among jaundiced patients visiting coast general hospital, Mombasa County, Kenya. submitted *under review Ethiopian Journal of Health sciences*
- 9) Gordon Ochieng Kasera, Omondi Kevin Onyango, John Maingi **Nyamache A.K.**: Hepatitis B virus genetic heterogeneity and drug resistance among jaundiced patients at Coast General Teaching and Referral Hospital, Mombasa County, Kenya. accepted: *International Journal Of Health Sciences*.
- 10) Kirui J.K, Maingi J, Ogari C, **Nyamache A.K.** Prevalence of Multidrug Resistant Tuberculosis among Previously Treated TB Patients in Nairobi County, Kenya. *Pan African Medical Journal* (under review).
- 11) Ngai, D. G., **Nyamache A.K.**, Ombori, O. (2021). Prevalence and antimicrobial resistance profiles of Salmonella species and Escherichia coli isolates from poultry feeds in Ruiru Sub-County, Kenya. *BMC research notes*, 14(1), 1-6.
- 12) Gershom, N. A., Stella, K., John, M., **Nyamache A.K.** (2020). Variation of Total Coliforms and Bacteria during Dry and Wet Seasons in Rivers of Sigor Division, West Pokot County, Kenya. *Journal of Advances in Microbiology*, 41-51.
- 13) Nyagaka, B., Musyoki, S. K., Karani, L., **Nyamache A.K.**, (2020). Characteristics and treatment outcomes of HIV infected elderly patients enrolled in Kisii Teaching and Referral Hospital, Kenya. *African Health Sciences*, 20(4), 1537-45.
- 14) Karani, L. W., Musyoki, S., Orina, R., **Nyamache A.K.**, Khayeka-Wandabwa, C., & Nyagaka, B. (2020). Human papillomavirus genotype profiles and cytological grades interlinkages in coinfection with HIV. *The Pan African Medical Journal*, 35(67). 2020.
- 15) Mabeya, S; **Nyamache, A.K**; Ngugi, C.; Nyerere, A; Lihana R.: Characterization of HIV-1 Integrase Gene and Resistance Associated Mutations Prior to Roll out of Integrase Inhibitors by Kenyan National HIV-Treatment Program in Kenya. *Ethiopian J Health Sci.* 2020;30(1):447.
- 16) Nyagaka, B., Musyoki, S. K., Karani, L., Nyamache, A. K. (2020). HIV infection and immunosenescence: a comparison of immune status and t cell homing markers between hiv infected and uninfected elderly individuals in kisii, Kenya. *African Health Sciences*, 97(8),2991-2999.
- 17) Muitta E, Were T, **Nyamache A.K.** Reproductive and Lifestyle Characteristics in Kenyan Women Presenting With Precancerous Cervical Lesions. *E Afr Health Res J.* 2019;3(2):116-124.
- 18) Abongwa, L. E., **Nyamache A. K.**, Torimiro, J. N., Okemo, P., Charles, F. (2019). Human immunodeficiency virus type 1 (HIV-1) subtypes in the northwest region, Cameroon. *Virology journal*, 16(1), 1-7.
- 19) Mabeya, S; **Nyamache, A.K**; Ngugi, C.; Nyerere, A; Lihana, R.: Predominance of CCR5 tropism in non B HIV-1 subtypes circulating in Kisii county, Kenya. *East African Medical Journal*:. 95; 9; 2018.
- 20) Odhiambo, W. A., **Nyamache A.K** & Nyerere, A. (2017). Prevalence of *campylobacter jejuni* and other bacterial pathogens in selected foods and drinks served in fast food kiosks in Ngara and Burma markets in Nairobi. *International Academic Journal of Health, Medicine and Nursing*, 1(1), 32-57.
- 21) **Nyamache AK**, A.W Muigai, SA Khamadi. Circulating Trends of non B HIV type 1 subtypes among Kenyan individuals. *Journal of AIDS Research and Human Retroviruses* 2013, 29(2): 400-403
- 22) **Nyamache A.K.**, Muigai A.W, Khamadi S.A.: Profile of HIV-1 Co-Receptor Tropism among Kenyan patients from 2009 to 2010. *Journal of AIDS Research and Human Retroviruses.* 2013; 29, 8, 1105-1109
- 23) **Nyamache A.K.**, A. Muigai, S.A. Khamadi: Phylogenetic analysis of the envelope HIV-1 type 1 isolates among Kenyan cohort. *African Journal of health and therapeutics* 2012; 1:4:1
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1.2.2 Books

1. Extent of drug resistance mutations among HIV-1 positive drug-naive populations: Amazon Books ISBN/ISSN **9783639242881**

1.2.3 Reviewed conference papers

- 1) Lem EA, **Nyamache AK**, Fokunang C, Judith T, Nshom E, Irénée D and Paul O (2019) Risk factors of severe hepatotoxicity among HIV-1 patients initiated on highly active antiretroviral therapy in the northwest region of Cameroon (PO 8190). *BMJ Journal Global Health 4(Suppl 3):A21.3-A22. DOI: 10.1136/bmjgh-2019-EDC.54*
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 - 6) Lem EA, **Nyamache AK**, Fokunang C, Judith T, Nshom E, Irénée D and Paul O (2018) Hepatotoxicity and related Risk Factors of Severe Hepatotoxicity Among HIV-1 infected Individuals initiated on Highly Active Antiretroviral Therapy(HAART) in Cameroon: June 14th -16th, 2018 in Grand Hyatt Incheon, Incheon, South Korea,
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 - 8) Peter Koigi, Musa Otieno, Caroline Ngugi and **Nyamache AK**. Genotyping of HIV type 1 drug resistance among patients with immunological failure to first and second line antiretroviral therapy in Kenyan. The 3rd Medical and veterinary virus Research in Kenya (MVVRK) symposium 2014. Hilton Hotel, Nairobi Kenya.
 - 9) G.Gachara; **A.K. Nyamache**; G.J.B. Gnonlonfin; J. Harvey; J. Wainaina; I. Wanjuki, and R. Skilton. Post-harvest fungi diversity and aflatoxin contamination in stored maize in Eastern and Western Kenya. Poster presentation.19th International Scientific Conference, 11th -13th September,2013.Nairobi,Kenya.
 - 10) G.Gachara; **A.K. Nyamache**; G.J.B. Gnonlonfin; J. Harvey; J. Wainaina; I. Wanjuki, and R. Skilton. Post-harvest fungi diversity and aflatoxin contamination in stored maize in Eastern and Western Kenya.Oral presentation.1st International One Health Central and Eastern Africa (OHCEA) Conference.23rd- 27th September, 2013.Addis Ababa, Ethiopia.
 - 11) G.Gachara; **A.K. Nyamache**; G.J.B. Gnonlonfin; J. Harvey; J. Wainaina; I. Wanjuki, and R. Skilton Occurrence and distribution of aflatoxin contamination in stored maize across three Agro-ecological zones in Kenya. 3rd Kenya International Lung Health Conference. 2nd- 5th October, 2013. Nairobi, Kenya.
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 - 19) **Nyamache A.K**, Z. Nganga, A. Muigai, S.A. Khamadi :HIV-1 Genetic diversity and drug resistance among cohort of women in Nairobi, Kenya: International Microbicides-bridges in HIV prevention conference 21-25th May 2010 Pittsburgh, Pennsylvania, USA
 - 20) **Nyamache A.K**, R. Waihenya, V. Okoth, R. Lihana, J. Mwangi, J. Muriuki, M. Kiptoo, N. Langat, J. Kinya, J. Khamala, F. Okoth, M. Mwau, S. Khamadi .Extent of drug resistance mutations among HIV-1 positive drug-naïve patients in Kenya *abstract International HIV pediatrics workshop in 2009 Cape Town South Africa on July 17-18th 2009. International journal of reviews in antiviral therapy Vol 6 A-05 pg 105 (2009)*
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1.2.4 Editorial of book or conference/workshops proceedings

1. Abongwa, L.E., **Nyamache, A.K.**, Akono, N., Sunjo, S., Nange, V., Balan, H., Charles, F., Okemo, P. and J. Torimiro, (2018). HIV drug resistance profile to first line antiretroviral therapy regimen in naïve patients in the Northwest region (NWR) of Cameroon. Poster. AAAMR congress (<http://africaamr.org/>) on 26-28 February 2018 in Bamako, Mali.
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3. Abongwa, L.E, **A.K Nyamache**, Fokunang C, P. Okemo , Laure AT, Yengo C Takou D , J.N Torimiro. "Cytokines associated with antiretroviral induced hepatotoxicity in people infected with the human immunodeficiency virus type 1 in the Northwest region of Cameroon" 34th Annual Clinical Virology Symposium to be held from May 6-9, 2018 in West Palm Beach, Florida.
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5. Koigi P, Otieno M, C. Ngugi and A. **K. Nyamache**. Genotyping of HIV type 1 drug resistance among patients with immunological failure to first and second line antiretroviral therapy in Kenyan. The 3rd Medical and veterinary virus Research in Kenya (MVVRK) symposium 2014. Hilton Hotel, Nairobi Kenya.
6. G.Gachara; **A.K. Nyamache**; G.J.B. Gnonlonfin; J. Harvey; **J. Wainaina**; I. Wanjuki, and R. Skilton. Post-harvest fungi diversity and aflatoxin contamination in stored maize in Eastern and Western Kenya. Poster presentati^{on}.19th International Scientific Conference, 11 -13th September, 2013.Nairobi,Kenya.
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9. G.Gachara; **A.K. Nyamache**, G.J.B. Gnonlonfin; J. Harvey; J. Wainaina, R. Skilton . Aflatoxins threat to Kenya Maize consumptions, case studies of selected Kenyan counties study. 4th Biennial NMK conference 6th - 8th Nov 2013, Tanzania
10. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi: High prevalence of primary Enfuvirtide (ENF) resistance-associated mutations in HIV-1-infected patients in Nairobi. Submitted for ICASA conference 2013 Cape Town SA.
11. **Nyamache A.K.**, A. Muigai, S.A. Khamadi: Phylogenetic analysis of the envelope HIV-1 type 1 isolates among Kenyan cohort. Oral: The 2nd Medical and veterinary virus Research in Kenya (MVVRK) symposium. Panafric Hotel, Nairobi Kenya
12. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi: HIV-1 co-receptor tropism in Nairobi cohort and its implication to antiretroviral therapy in Kenya: Oral Abstract No 1661 16th International AIDS and STDs Conference, 4-8th December 2011, Adisa Ababa Ethiopia.
13. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi: HIV Type 1 Genetic Diversity in Nairobi cohort, its implications on vaccine design and drug resistance abstract No. 056: ITROMID JKUAT, Nairobi, Kenya 18-19th May 2011, conference.
14. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi: HIV-1 genetic diversity and naturally occurring polymorphisms in HIV-1 Kenyan isolates Integrase gene: Implications for integrase inhibitors 1st annual KEMRI scientific conference, KEMRI HQ Nairobi 9-11th Feb 2011.

15. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi: HIV-1 genetic diversity and viral tropism among Kenyan individuals: 1st East Africa regional Scientific conference, Kenyatta University, Kenya August 2010
16. **Nyamache A.K.**, Z. Nganga, A. Muigai, S.A. Khamadi :HIV-1 Genetic diversity and drug resistance among cohort of women in Nairobi, Kenya: International Microbicides-bridges in HIV prevention conference 21-25th May 2010 Pittsburgh, Pennsylvania, USA
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18. **Nyamache A.K.**, R. Waihenya, V. Okoth, R. Lihana, J. Mwangi, J. Muriuki, M. Kiptoo, N. Langat, J. Kinya, J. Khamala, F. Okoth, M. Mwau, S. Khamadi. Extent of drug resistance mutations among HIV-1 positive drug-naïve patients in Kenya *abstract No. CDC 0057, Journal of international AIDS 2009, International AIDS HIV pathogenicity, prevention and treatment conference 2009 Cape Town South Africa on July 19-22 2009*
19. **Nyamache A.K.**, Waihenya R, Khamadi S.A. Primary genotypic drug resistance mutations among selected HIV-1 positive drug-naïve populations of Kenya *presented and published at inaugural Institute of tropical medicine and infectious diseases post graduate conference 28-29th May 2009 at Jomo Kenyatta University of Agricultural and Technology*
20. **Nyamache A.K.**, Waihenya R, Khamadi S.A. HIV genetic diversity among drug naïve populations of Nairobi Kenya International AIDS Vaccine conference Oct 19-23 in Paris Viral Diversity P20-01,pg 269 2009
21. **Nyamache A.K.**, Waihenya R, Khamadi S.A. HIV Drug resistance, threats to management to management of HIV patients, Kenyan urban, 8th International Conference on Urban Health (ICUH 18-23rd Oct, 2009. KICC Nairobi Kenya.
22. **Nyamache A.K.**, Waihenya R, Khamadi S.A. HIV-1 genetic diversity among drug naïve populations of Nairobi, in Kenya, *ISCB-Africa ASBCB Joint Conference on Bioinformatics of Infectious Diseases at Bamako International Conference Centre, University of Bamako Medical School, Bamako, Mali. 30 Nov- 2 Dec 2009.*
23. **Nyamache A.K.**, Waihenya R, Khamadi S.A. Primary genotypic drug resistance mutations among selected HIV-1 positive drug experienced populations of Kenya. *10th annual symposium on antiviral drug resistance SADR Target mechanism Richmond Virginia USA*
24. **Nyamache A.K.** & H. Boga, A comparative study of the efficacy of generics and original of Norfloxacin against *Escherichia coli* Presented and published at 3rd University faculty conference proceedings held on Nov 2007.
25. **Nyamache A.K.**, P. Ochola; Isolation and antimicrobial susceptibility patterns of pathogenic *Escherichia coli* causing UTI. Presented & published on at 2nd university conference proceedings held Nov 25-26th Nov 2006 at Jomo Kenyatta University of agricultural and technology Kenya. ISBN no.9988-243-88
26. **Nyamache A.K.** Onyango W., Wasike. D & Matiru V.; A comparative evaluation on broth micro dilution, disc diffusion and agar dilution methods on antifungal susceptibility testing of plant extracts. Presented and published at 2nd university faculty conference proceedings held June13-14th 2006 at Jomo Kenyatta University of agricultural and technology ISBN no.8866-213-78

1.2.5 Scholarly Presentations at conferences/ workshops and seminars

- 8-9th/01/18** Role of chairpersons of Department in the implementation of University Policy
- 7-8th /5/ 15** WHO/TDR follow up workshop on grant application, scientific writing and public science communication workshop, KCB Karen, Nairobi, Kenya
- 16-19/9/ 14** WHO/TDR Manuscript and research grant writing workshop
- 17-21/06/ 13** First workshop on Mathematical modeling for science research and development, Kenyatta University
- 18-19/10/12** The 2nd Medical and veterinary virus Research in Kenya (MVVRK) symposium. Panafric Hotel, Nairobi Kenya
Online (<https://www.youtube.com/watch?v=IUVDvVtHxHY&t=360s>)
- 13-17/08/12** Advanced genomics and bioinformatic workshop: Viral and bacterial metagenomics and next generation sequencing, ILRI, Nairobi Kenya
- 5/05-1/6/2012** AuthorAID–IFS Workshop on Scientific Writing at The African Academy of Sciences, Nairobi, Kenya, 28 May–1 June 2012
- 1--19/07/11** Project implementation, grant application and management soft skills workshop, University of Youndel Cameroon
- 19/10/09** 2010 Scientific Strategic Plan Consultation on AIDS Vaccine, Paris France
- 19-23/10/09** International AIDS Vaccine conference in Paris
- 18-19th /10/09** Standardized Measurement of Neutralizing Antibodies to Advance HIV Vaccine Development, Workshop 18-19 October 2009 Paris France
- 21/07/09** Workshop on Scientific Writing *Publish or Perish* by Journal of the International AIDS Society, Cape Town South Africa
- 17-18/07/09** 1st International workshop on HIV pediatrics, Cape Town South Africa
- 22-26/06/09** 2nd Workshop on Pharmacogenomics & bioinformatics, Pharmacogenetics of Drug Metabolism, Nairobi, Kenya, University of Nairobi, Kenya, African institute of science and technology, Zimbabwe

Dr. Kebira CV

- 4th-5th/05/09** Introductory course in Bioinformatics, CGRI/ ILRI Nairobi Kenya
- 26-27th/03/09** Science and technology-Europe Africa Project Workshop, European Union's 7th framework programme for Research, Hilton Hotel Nairobi Kenya
- 10th /02/09** Emergency First AIDS, training, St John Ambulance Nairobi
- 19th-24th/01/09** Principle of HIV research, application in today's research training course, University of Washington, Centre for HIV/AIDS research, Seattle USA & Centre for clinical research, Kenya Medical Research Institute KEMRI Headquarters Kenya
- 03/10/08** Use and application of QiaCube automated RNA/DNA extractions from viruses, bacteria, fungal, PBMCs, Plasma and body fluids. Division of Medical virology, University of Stellenbosch, Cape Town South Africa
- 5/09/08** HIV drug resistance and its implication in clinical practice University of Western Cape, Cape Town South Africa
- 22/08/08** Real Time PCR and its applications in diagnostic & research Division of Medical virology, University of Stellenbosch, Cape Town South Africa
- 19th-24th/01/09** Principle of HIV research, application in today's research Workshop by University of Washington, Centre for HIV/AIDS research, Seattle USA & Centre for clinical research, Kenya Medical Research Institute KEMRI Headquarters Kenya

1.4 Professional/Consultancy

1.4.1 Networks/Colloborations

- 2008-date** Prof Susan Engelbretch Division of Medical Virology, University of Stellenbosch South Africa
- 2008-date** Dr Samoel Ashimosi Khamadi, Centre for Virus research KEMRI
- 2011-date** DRUG PHAMACOGENOMIC GROUP: Dr. Ali Mbuli, University of Cameroun, Dr. Peter Chibueze, Mnadi University, Nigeria, Dr. Collet Dandara, University of Cape Town

1.4.2 Editorial Boards/Referee for Professional Periods.

1. Editorial Board African Journal Of Applied Sciences (AJAS) SPAS, Kenyatta University
2. International Conference On AIDS and STIS In Africa ((ICASA) 19th | 4 - 9 DEC 2017 | Abidjan | Côte D'ivoire
3. African Journal of Microbiology Research 2011 to date
4. International Journal of Medicine and Medical Sciences 2011 to date
5. Internal Journal of Microbiology and Research 2012 to date
6. African Journal of Biotechnology 2015 to date
7. BMC Complementary & Alternative Medicine 2015 to date
8. Elsevier; Asian Pacific Journal of Tropical Biomedicine 2012 to date
9. East Africa Medical Journal 2010 to date
10. BMC Research notes 2015 to date
11. Journal of AIDS Research and Human Retroviruses 2013 to date
12. BMC Case reports 2014 to date
13. JKUAT grant reviewer 2015 to date
14. JKUAT external examiner 2015 to date

1.4.3 Consulting for international/national Boards

- Technical Evaluation and Review committee member, Kenya Medical Technician and Technologist Board (KMTTB) 2013 to date

1.4.4 Examiner/Evaluator for various Universities

- 2016 to 2020: Departmental External Examiner for the Department of Medical Microbiology examinations, Mount Kenya University
- 2019 to date: Departmental External Examiner for the Department of Medical Microbiology examinations Jomo Kenyatta University of Agriculture & Technology
- 2011 to date: External Examiner for PhD/MSc thesis for JKUAT, Masinde murilo University of science & Tech, Embu University & Maseno Universities in various areas of specialization in biological & biomedical Sciences

1.4.4 THESIS EXAMINED

1.4.4 a) MSc. Thesis Examined (Internal)

3. **Esther Waithira Kamau:** Effect of the use of *Trichoderma asperellium* as bio-control agent of root knot nematodes on nodulation of French beans in Kenya". Msc thesis 2014
4. **Chekorir Soy Linner"** Invitrio Antifungal activities of *Azadirachta indica* AND *Warburgia ugandensis*' 2014 Internal Examiner.
5. **Ithinji Jane Kathira:** Effect of soil amendment with manure on nodulation and nitrogen fixation in soy beans and climbing beans in Meru County, Kenya. 2014 Internal Examiner

6. **Clive Nyambane:** Prevalence and susceptibility profiles of urinary tract infections in children presenting at Kisii level 5 Hospital, Kisii country. 2014 Internal Examiner
7. **India Jacqueline:** Efficacy of some selected medicinal plants used in various parts of Kenya in treating selected bacterial and fungal diseases. 2014 Internal Examiner
8. **Mung'ang'a Elijah Mativo:** Amoebiasis levels in relation to sanitation and personal hygiene among patients attending Kauwi and Muthale Hospitals in Kitui County, Kenya". 2014 Internal Examiner
9. **Abuga Samwel Onyambu:** Efficacy of selected medicinal plants used by the Samburu community against selected bacterial and fungal pathogens" MSc thesis 2013 Internal Examiner
10. **Newton Ombese Osoro:** 'Composting and effects of water hyacinth (*Eichornia crassipes*) compost on growth and yield of *Phaseolus Vulgaris* and *Zea* may. 2013 Internal Examiner.
11. **Samwel Abuga:** Efficacy of selected medicinal plants used by the Samburu community against selected bacterial and fungal pathogens. 2013 Internal Examiner.
12. **Victor G Nganga:** A comparative study of the physico-chemical properties and bacterial load of greywater in Homabay town and Githurai estate. 2013 MSc Thesis Internal examiner.
13. **Kithure Robert Kariba:** Genetic diversity of *Faidherbia albida* (Del) A. chev collections held at the world Agroforest centre (ICRAF) as revealed by AFLP Markers. 2013 MSc Thesis. Internal Examiner
14. **Thuranira Silas G:** Evaluation of low cost materials and techniques for sowing production by farmers in Kenya. MSc thesis. 2013 Internal Examiner.
15. **Grace N Togo Khayota:** Prevalence of HSV-2, Syphilis and Hepatitis B Virus in HIV-1 infected immunocompromised persons in selected Health facilities in Nairobi. 2012 MSc thesis internal examiner
16. **Japheth Wambani Rapando:** Hepatitis B and C coinfections and disease markers among HIV infected patients attending academic proving access to healthcare clinic, Kenya, 2015", 2015 MSc thesis internal Examiner.
17. **Macharia John Macharia:** Prevalence, characteristics and risk factors associated with *Staphylococcus aureus* presence in Marketed milk and milk products within Nairobi county, Kenya" MSc thesis internal Examiner.
18. **Ephatus Kiama Muturi:** 'Prevalence of asymptomatic bacteriuria and antimicrobial susceptibility profile among pregnant women attending antenatal clinic of Gatundu level four Hospital in Kiambu County".
19. **Ephraim Menge:** 'Improving biological nitrogen fixation in common bean (*Phaseolus vulgaris* L) varieties grown within Eastern Kenya"
20. **Isaac Njagi MSc thesis Titled:** 'Occurrence of bacterial and fungal infections in two commonly cultured fish species reared in hatcheries at Sagan, Jambo and Mwea fish farms".
21. **Simon Mburu:** 'Nitrogen fixing potential of indigenous Bradyrhizobia nodulating soybean varieties grown in Eastern Kenya"
22. **Gilbert Koskei:** 'Improving biological nitrogen fixation in yellow beans varieties grown within Eastern Kenya"
23. **David Kipkemoi Kiyeng's MSc thesis Titled:** "Transfusion transmissible infections, immune status, Haemoglobin genotypes and blood groups among blood donors in Regional blood transfusion centre, Eldoret"
24. **Hezekiah Njogu Muhia's MSc thesis Titled:** 'Antifungal activity and crude extracts from selected plants against *Alternaria solani* (Tomato blight pathogen)"
25. **Kinankau Virginiah Kiunga's MSc thesis Titled:** 'Genotypic and phenotypic characterization of diarrhoeagenic *Escherichia coli* isolated from children below Five years in Mukuru informal settlement, Nairobi County, Kenya"
26. **Macharia John Macharia** Prevalence, characteristics and risk factors associated with *Staphylococcus aureus* presence in Marketed milk and milk products within Nairobi county, Kenya"
27. **Mr. Ephatus Kiama Muturi's** Prevalence of asymptomatic bacteriuria and antimicrobial susceptibility profile among pregnant women attending antenatal clinic of Gatundu level four Hospital in Kiambu County"
28. **Nchagwa Edward Mong'are's MSc thesis Titled:** 'Prevalence of cytomegalovirus infection and associated risk factors among HIV infected patients at Thika level 5 hospital."
29. **Harry Asena Musonye's MSc thesis. title:** 'Profile of bacterial communities mediating production of tsetse attracting phenols in urine of selected mammals" 2019 internal examiner.
30. **Ms. Jedidah Gatheru's MSc thesis Titled:** 'Analysis of microbial communities in cricket (*Gryllus bimaculatus* and *Scapsipedus marginatus*." 2019 internal examiner.
31. **Protus Omondi MSc thesis Titled:** Evaluation of *Plasmodium falciparum* gametophyte artemether-lumefantrine or dehydroartemisinin/piperazine treatment in children from Busia County internal examiner.

1.4.4 b) PhD THESIS EXAMINED from various Universities

- 1) **Omari Amuka: PhD Ethinobotany KU.** Title: Efficacy of selected medicinal plants used by the Ogiek community against Microbial related conditions. 2013 Doctorate Thesis. Internal Examiner
- 2) **Wanzala Everlyne Nafula: PhD Pharmaceutical Chemistry KU** 'Evaluation of antitrypanosomal activity of extracts of selected Meliaceae plant species by *in vitro* and *in vivo* assays". 2015 Doctorate Thesis. Internal Examiner
- 3) **Mwajuma June Jeophita: PhD Microbiology KU** 'Community dynamics of metagenome bacteria of drinking water distribution systems in Mombasa County, Kenya" internal examiner
- 4) **Gachie Rose Nyambura's PhD Hematology KU.** Title: Hematological reference intervals for adolescence and adults in Nauru County, Kenya' internal examiner

- 5) **Sifuna Anthony Wawire PhD Biomedical Sciences. Maseno University.** Characterization and source tracking of diarrhoeal bacteria contamination fish in Lake Victoria, Kenya”. External examiner.
- 6) Joseph Kabogo **PhD Mol Med JKUAT** ‘Prevalence and patterns of virological failure and HIV-1 drug resistance among children and adolescent in the LEA ToTo Programme in Nairobi, Kenya Sep 2018
- 7) **Ms. Annacarol Kranja’s PhD thesis KU** Titled: ‘Rapid bioconversion of rice straw using cellulolytic cultures for improved and sustainable crop productivity and soil fertility in Mwea, Kenya

1.4.4 c) EXTERNAL THESIS EXAMINATIONS

- 1) Joan Chelang’at Soi’s **MSc MLS- Haematology** blood transfusion option **JKUAT** Titled: ‘IgG-antibody seroprevalence of West Nile Virus among blood donors in Nairobi and Nakuru regional blood transfusion centres in Kenya”
- 2) Mirriam Mbithe Nzivo **MSc thesis Med Virology JKUAT.** ‘Human Herpes Virus Type 8 and its coinfection with HIV and Treponema pallidum among female sex workers in Malindi, Kenya” **Feb 2019.**
- 3) Philomena Wafula Makhanu’s **MSc MLS- Haematology** blood transfusion option. **MMUST**.thesis Titled: ‘Anaemia burden and predictors among defaulting antiretroviral treatment at Siaya county referral hospital, western Kenya” **2018**
- 4) Collins Odiwour Abonyo. **MMUST MSc MLS- Haematology** blood transfusion option. thesis Titled: ‘Hematological profiles of HIV and TB co-infected injection substance users from Mombasa city, Kenya. **2018**
- 5) Ms. Koech Caroline Chepkorir’s **MSc thesis JKUAT.** Med Virology thesis Titled: HIV AND HTLV among intra venous drug users in Malindi, Kenya” **MSc Oct/2018**
- 6) Ms. Joan Chelang’at Soi’s **MSc thesis JKUAT.** Med Lab Sc (Haematology)thesis Titled: ‘IgG-antibody seroprevalence of West Nile Virus among blood donors in Nairobi and Nakuru regional blood transfusion centres in Kenya. **Sep 2018**
- 7) James Gitau Komu **MSc thesis JKUAT** Med Virology thesis Titled: ‘sero-prevalence, genotypes and risk factors associated with HBV among HIV infected patients attending the comprehensive care Centre at Malindi sub-county hospital in Kenya, **2015” March, 2018**
- 8) Faith Mathai. **MSc thesis JKUAT.** Med virology. Diagnostic value of HBsAG in HBV infection among patients referred to pathologist lancet laboratory in Nairobi. **2018**
- 9) Maureen Jebichii Kimulo’s **MSc thesis JKUAT:** ‘Therapeutic drug levels and treatment responsiveness among Kenyan patients infected with HIV-1 type 1. **May 2018**
- 10) James Mburu’s **Msc thesis JKUAT:** ‘Prevalence and associated factors of HBV infections among HIV infected highly active antiretroviral therapy receiving mothers and their exposed infants in Kenyatta National Hospital.” **March 2018**
- 11) Nahom F. Seulu’s **Msc thesis JKUAT:** Titled: ‘Prevalence of anti-HBV seromarkers and molecular characterization of Hepatitis B virus among antenatal care attendee in Eritrea **March 2018**
- 12) Mwebi Jacob Seroni **Msc Medical Microbiology Maseno** thesis Titled: ‘Microbiological burden of water from ready to eat food outlets in Maseno Township, Western Kenya”.**June 2016**
- 13) Tyrus Omondi **Msc Histopathology and cytology Maseno:** Assessment of antiproliferative activities of selected medicinal plant extracts used for management of diseases around Lake Victoria Basin”. Maseno Varsity. **2018**
- 14) Omolo Goret’s **Msc thesis JKUAT:** “Evaluation of a loop-mediated isothermal amplification assay (LAMP) for rapid detection of Hepatitis C virus and its genotypes in plasma samples. **2017**
- 15) Chepkurui Lily K.’s **Msc thesis JKUAT:** “Hepatitis B virus seroprevalence among HIV infected individuals seeking care at selected hospitals in Kericho County, Kenya”. **April 2017**
- 16) Langat Hillary Kipngeno **Msc thesis JKUAT:** ‘Detection and typing of Human Papilloma Virus in urine from patients attending a sexually transmitted infections clinic in Nairobi County, Kenya”. **April 2016**
- 17) Elizabeth A. C. Luvai’s **Msc thesis JKUAT:** “Evaluation of predictor of HIV/AIDS treatment failure in a cohort study from comprehensive care clinic in Nairobi, 2013”. **Jan 2016**
- 18) Sandra Kendra Raini **MSc Virology JKUAT:** Characterization of Human Rota Virus group A serotypes causing gastroenteritis in children below 5 years and HIV infected adults of Viwandani slum in Nairobi, Kenya. External Examiner JKUAT **2015.**
- 19) Langat Hillary Kipngeno **Msc Med Virology JKUAT:** Detection and typing of Human Papilloma Virus in urine from patients attending a sexually transmitted infections clinic in Nairobi County, Kenya. **2015**
- 20) Mwebi Jacoba Seroni. **Msc Med Microbiology. Maseno:** Microbiological burden of water from ready to eat food outlets in Maseno Township, Western Kenya. **2014**
- 21) Salama Mahfudh’s **Msc thesis JKUAT:** “Generation of monoclonal antibodies against Rift Valley fever and evaluation of their diagnostic potential”. 15 Nov, **2015**
- 22) Ms. Jennefer Njoki Wambugu **Msc thesis JKUAT:** ‘Characterization of Lactic acid bacteria isolated from coconut wine (Mnazi) for probiotic potential” **19 August 2015**

1.5 ADMINISTRATIVE and RESPONSIBILITIES

1.5.1 Recognised University administrative positions

2017- 2019:	Chairman, Department of Microbiology, Kenyatta University
2017 to date:	Member of Exam Moderation committee
2014-2017:	Chair, Board of Post graduate studies, Department of Microbiology
2014: Feb/March:	Acting Chairman Department of Microbiology
2014- 2017:	Chair and Co-ordinator Departmental of Microbiology, ISO, Quality Management System
2014- 2017	Chair, Department of Microbiology Biosafety committee
2013- 2017:	Advisor, Post graduate studies
2013-2014:	Department of Microbiology, Time Tabler
2010- 2013:	Assistant Microbiology coordinator, Department of Plant & Microbial Sciences
2010-2013:	A member of Board of Undergraduate, Dept of Plant & Microbial sciences
2010-2013:	A Member of Quality Management System Committee, Dept of plant and Microbial sciences
2012-2013:	Member, Departmental Board of postgraduate studies, Dept of Plant & Microbial Sciences

1.5.2 Other responsibilities in the University

2019 to date:	Editorial Members in African Journal of Applied Science (SPAS, KU)
2014 to 2017:	School of Pure and Applied Science, Research committee member
2017 to date:	School of Pure and Applied Sciences, small and travel grants committee member.

6.0 Quality Teaching, Learning and mentorship

1.6 Community Engagements and other contributions

1.6.1 Research Funding

YEAR	SOURCE	COLLABORATORS	STUDY/PURPOSE
2018	Anahauc Universit MSc Global Bioethics scholarship		To pursue MSc degree
2017	Kenyatta University, VC grants, Ksh: 650,000	Dr. James Nonoh	Identification of human foot bacterial profile responsible for production of constituents that modulate level of attraction of malaria vector <i>Anopheles gambiae</i>
2016	PRD –European Union: Euros 64,500	Dr. Vincent Ali, Cameroun, Dr. Chibueze Nigeria	HIV-1 pharmacogenomics study and impact on drug resistance
2016	NACOSTI, Ksh: 1,200,000	Ms. Domtilah Kyule Dr. John Maingi Dr. Ezekiel Mugendi	Effectiveness of different preservations methods on the quality and safety of farmed fish and products developed in Kirinyaga County, Kenya
2016	Kenyatta University VC grants Ksh: 600,000	Ms. Reginah Ntabo DR. A. Kebira Dr. J Nonoh	Isolation & Characterization of bioactive endophytic Bacteria associated with selected plants of Kenya's mangrove ecosystem
2013	NACOSTI, Ksh: 200,000	Irene Nyamwaka Dr. John Maingi	Determination of Fungi and factors associated with their growth on sun ried <i>Rastrineobola argentea</i> in Gucha south, Kisii County, Kenya
2013	Raman International fellowship: USD: 10,000		Genetic diversity and Temporal Trends of Hepatitis B, Hepatitis C and drug resistance in HIV-1 infected Intravenous Drug abusers in Mombasa, Kenya
2013	PRD –European Union: Euros 4500	Dr. Vincent Ali, Cameroun, Dr. Chibueze Nigeria	Pharmacogenomics and Predictors of Antiretroviral Treatment Responses in Africa-Kenya
2010	International Society of infectious diseases (ISID): Small Grant: USD 6000		Evaluation of HIV evolution and its role in development of antiretroviral drug resistance.
2008	HIV trust scholarship: USD: 17,500		Evaluation of HIV evolution and its role in development of antiretroviral drug resistance.

1.6.1 b) Travel grants

- 2014 Travel grant: WHO TDR Scientific & Grant Writing Workshop, Nairobi Kenya
- 2013 ICASA 2013 registration scholarship, Cape Town
- 2012 AuthorAID-IFS scholarship attend a one week Authorship Workshop. Nairobi, Kenya
- 2011 Travel grant to Ethiopia to attend ICASA STDs conference in Ethiopia
- 2010 Forgyat scholarship, attend Principles of HIV research training, Nairobi, Kenya
- 2010 Travel grant to attend International Microbicides conference, Pittsburgh Pennsylvania USA
- 2009 Travel scholarship, Partners in HIV microbicides Research to attend Cape Town South Africa 1st HIV paediatrics workshop USD1000
- 2009 Travel grant to attend International AIDS Vaccine conference in Paris, France
- 2009 Travel grant to 10th Travel grant to 10th annual symposium on antiviral drug resistance Richmond Virginia USA

1.6.2 Community Outreach

1. Sunday school Teacher CITAM church Thika Road
2. Traffic Ministry CITAM church Thika Road

1.6.3 . PROFESSIONAL Affiliations & Portofolios:

- Kenya Society of Microbiology
- International society of infectious diseases
- International society of AIDS No. 38729
- American society for Microbiology, No. 56588346
- JKUAT Bioinformatics club member
- International Society of Computer Biology (bioinformatics)
- Biafrica (HIV bioinformatics in Africa)
- World federation of scientists
- Association of Kenya Medical Laboratory Scientific Officers (AKMLSO)
- Registered Member Kenya Medical Technician and Technologist Board (KMTTB)

1.6.4 Recognition award and honours

- 2014: Recognized for an Extra Mile worker as Departmental Chair of Board of Postgraduate study Kenya University year 2014
- 2009: Best presenter postgraduate ITROMID conference

REFEREES

1. Dr John Muthini Maingi
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