



# THE TECHNICAL UNIVERSITY OF KENYA

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NAME: MR JUSTINE TIRIMBA NYASINGA

Faculty:	Applied Sciences and Technology	
School:	HEALTH AND BIOMEDICAL SCIENCES	
Department:	Biomedical Sciences and Technology	
Current Designation:	Tutorial Fellow, BIOMEDICAL SCIENCES AND TECHNOLOGY (DBST)	
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Consultation Hours:	8AM-5PM MON - FRI	

## EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Masters of Science (M.Sc.)	BIOTECHNOLOGY	KENYATTA UNIVERSITY(Kenya)	2018
Postgraduate Diploma	HEALTH RESEARCH METHODS	PWANI UNIVERSITY(Kenya)	2015
Bachelor of Science (BSc)	MICROBIOLOGY	KENYATTA UNIVERSITY(Kenya)	2013
Short Course/ Training	BACTERIAL GENOMES: ANTIMICROBIAL RESISTANCE IN BACTERIAL PATHOGENS	WELLCOME GENOME CAMPUS ADVANCED COURSES & SCIENTIFIC CONFERENCES(Kenya)	2020
Short Course/ Training	ANTIMICROBIAL RESISTANCE (Part 1-2)	GLOBAL HEALTH eLEARNING CENTER(Kenya)	2019
O level/Equivalent	KENYA CERTIFICATE OF SECONDARY EDUCATION	NYAMBARIA HIGH SCHOOL(Kenya)	2007

## WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
2020 - TO DATE	TECHNICAL UNIVERSITY OF KENYA	TUTORIAL FELLOW
01/07/2013 - 26/02/2014	UNITED STATES ARMY MEDICAL RESEARCH DIRECTORATE- AFRICA	RESEARCH INTERN
01/04/2014 - 20/12/2014	DLA SCIENTIFIC LIMITED	FIELD APPLICATIONS SUPPORT SPECIALIST
12/01/2015 - 20/09/2015	KEMRI-WELLCOME TRUST RESEARCH PROGRAMME	RESEARCH INTERN/PGD FELLOW
10/10/2016 - 10/10/2020	THE TECHNICAL UNIVERSITY OF KENYA	GRADUATE TEACHING AND RESEARCH ASSISTANT

## GENERAL STATEMENT ON RESEARCH AREAS

A biomedical research scientist interested in characterization of the emergence and dissemination of antimicrobial resistance and virulence mechanisms in various bacterial species. Additionally, I am focused on development of simple, rapid and low cost tools for characterizing bacterial pathogens especially in resource limited settings such as Africa. Previously, I studied temporal fluctuations in antibodies against Plasmodium falciparum merozoite antigens in clinically protected individuals

## CURRENT RESEARCH PROJECTS

EVALUATION OF iPLEX MASSARRAY AS AN ALTERNATIVE METHOD FOR GENETIC TYPING AND CHARACTERIZATION OF METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS IN KENYA	Antimicrobial resistance, Molecular epidemiology
DYNAMICS OF ANTIBODY RESPONSES AGAINST PLASMODIUM FALCIPARUM MEROZOITE ANTIGENS IN CLINICALLY PROTECTED INDIVIDUALS IN KILIFI COUNTY, KENYA	Malaria Immunology
EVALUATION OF IPLEX MASSARRAY FOR GENETIC CHARACTERIZATION OF STAPHYLOCOCCUS AUREUS ISOLATES IN KENYA	Molecular Biology
PHENOTYPIC AND GENOTYPIC CHARACTERIZATION OF CLINICAL STAPHYLOCOCCUS AUREUS INFECTIONS IN KENYA	Microbiology; Molecular Epidemiology
REGULATORY RNA-MEDIATED MECHANISMS OF DRUG RESPONSE IN CLINICAL STAPHYLOCOCCUS AUREUS IN KENYA	Microbiology/ Molecular Biology

## SELECTED PUBLICATIONS

TITLE	LINK TO PULICATION
A six-member SNP assay on the iPlex MassARRAY platform provides a rapid and affordable alternative for typing major African Staphylococcus aureus types	<a href="https://acmi.microbiologyresearch.org/content/journal/acmi/10.1099/acmi.0.000018">https://acmi.microbiologyresearch.org/content/journal/acmi/10.1099/acmi.0.000018</a>
Strain typing and characterization of virulence genes in clinical Staphylococcus aureus isolates from Kenya	<a href="https://www.researchgate.net/publication/327008076_Strain_typing_and_characterization_of_virulence_genes_in_clinical_Staphylococcus_aureus_isolates_from_Kenya">https://www.researchgate.net/publication/327008076_Strain_typing_and_characterization_of_virulence_genes_in_clinical_Staphylococcus_aureus_isolates_from_Kenya</a>
Epidemiology of Staphylococcus aureus infections in Kenya: Current state, gaps and opportunities.	<a href="https://m.scirp.org/papers/105914">https://m.scirp.org/papers/105914</a>
Antimicrobial activity of aloe Secundiflora against clinical isolates of Helicobacter pylori	<a href="https://www.ajol.info/index.php/eamj/article/view/198005">https://www.ajol.info/index.php/eamj/article/view/198005</a>
Phenotypic and genotypic characterization of clinical Staphylococcus aureus isolates from Kenya	<a href="https://bmcmicrobiol.biomedcentral.com/articles/10.1186/s12866-019-1597-1">https://bmcmicrobiol.biomedcentral.com/articles/10.1186/s12866-019-1597-1</a>

## COURSES TAUGHT

<b>NAME</b>	<b>DESCRIPTION</b>	<b>PERIOD</b>
Cell Biology	Origin of life and the living cell; Cell structure and function	2016 - TO-DATE
Molecular Biology	Molecules of life: DNA, RNA and Protein; Replication, Transcription and Translation; Regulation of gene expression in Prokaryotes and Eukaryotes; Molecular Techniques	2016 - TO-DATE
Molecular Diagnostics	Serological assays, Nucleic acid amplification techniques, DNA/RNA sequencing; Mass Spectrometry and HPLC	2016 - TO-DATE