

Sabella Kiprono, PhD
CURRICULUM VITAE

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PERSONAL INFORMATION

Nationality	Kenyan
Gender	Female
Languages	Kiswahili/ English/ Chinese
Nationality:	Kenyan
Marital status	Married

Career Aspiration

I aspire to be a global health Scientist involved in research, Innovation and scholarly activities that encourage innovative ideas and team work for excellent performance.

EDUCATION AND RESEARCH TRAINING

July 2023-June 2025	Postdoctoral Forgarty Global Health fellow -Havard University, and University of New Mexico, USA.
Sept 2021-July 2024	Diploma in Medical Laboratory Sciences - Kenya Medical Training College (KMTC)
Sept 2014-June 2018:	Huazhong University of Science and Technology (China) Doctoral Degree in Microbiology
June 2009- March 2011:	Saint Louis University, Philippines Master of Science (Biology major in Microbiology)
Jan 2005- June 2008:	Egerton University (Kenya) Bachelor of Education Science (Biology (Botany and Zoology) and Chemistry
Jan 2000-Nov 2003:	Sacho high school Kenya Certificate of secondary Education (Grade B plain)
Jan 1990-Nov 1999:	Tandui Primary school Kenya certificate of Primary Education 510/700 marks

WORK EXPERIENCE

November 2023-To date: Senior Lecturer	Masinde Muliro University of Science and Technology Department of medical laboratory sciences, School of Public health Biomedical Sciences and Technology <ul style="list-style-type: none">• Responsibilities:Designing, preparing, and delivering lectures, practical sessions, and tutorials in microbiology, medical laboratory sciences, and public health-related subjects.• Supervising undergraduate and postgraduate students in coursework, research projects, and internships.• Grant writing and publishing
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September 2014- November 2023: Lecturer	Masinde Muliro University of Science and Technology Department of medical laboratory sciences, School of Public health Biomedical Sciences and Technology
March 2012- September 2014: (Assistant Lecturer)	Masinde Muliro University of Science and Technology Department of medical laboratory sciences, School of Public health Biomedical Sciences and Technology
August 2011- To February: 2012- (Assistant lecturer)	Kampala International University P.O Box 9790, Gongo La Mboto, Dar Es Salaam Department of Microbiology, school of health sciences

RESEARCH EXPERIENCE

Neglected Tropical Diseases (NTDs), Visceral Leishmaniasis (2024-2026)

- **Research Focus:** Risk factors, distribution, associated with visceral leishmaniasis (VL) in Kenya, specifically Baringo County.
- **Grants & Outputs:** RSTMH-CIFF Early Career Grant: Geographical Distribution, Predisposing Factors, and Mitigation of VL in Baringo County.

Postdoctoral Research Focus (2023–2025): Harvard University and University of New Mexico, under the NIH Fogarty Global Health Fellowship (HBNU Consortium)

- **Research Focus:** *Co-encapsulation of Lactiplantibacillus plantarum and Ferulic Acid for Oral Delivery*
- Design and fabricate a novel oral delivery system that co-encapsulates:
 - *Lactiplantibacillus plantarum* (a probiotic with immunomodulatory potential)
 - Ferulic acid (a potent antioxidant with anti-inflammatory properties)
- Evaluate the antimicrobial activity of Ferulic acid against pathogenic bacteria
- Evaluate stability, bioavailability, and targeted release of the encapsulated agents in gastrointestinal conditions.

Doctoral Research Focus: Encapsulation and Biomaterials for Therapeutics (Huazhong University of Science and Technology-China 2014-2018)

- **Research Focus:** Use of biopolymers, to design hydrogels, for drug delivery and encapsulation of probiotics.
- Synthesize Bacterial cellulose and load with antimicrobial substances for wound healing
- Performed Physicochemical and rheological characterization of the hydrogels and bacterial cellulose using FESEM, TEM, FTIR, TGA
- Antimicrobial evaluation using the disk and agar well diffusion methods
- Innovations in bio fabrication, microbial surface engineering, and encapsulation using biomaterials.
- Microencapsulation of probiotics and hydrogel capsule design

RESPONSIBILITIES AND LEADERSHIP EXPERIENCE

March 2025-To Date	Acting Deputy Principal, Masinde Muliro University of Science and Technology Technical Vocational Educational Training College
March 2024-February 2025	Chairperson of the Medical Laboratory Science department, MMUST
October 2020-To date	Departmental coordinator Consultancy, Research and innovations, Department of Medical Laboratory Sciences; Masinde Muliro University of Science and Technology (MMUST)
2018 Oct-Oct 2020	School Postgraduate studies Coordinator, School of Public Health and Biomedical Sciences and Technology, Masinde Muliro University of Science and Technology
16th -21st September 2012	Facilitated the running of Health Professions Education Department while the COD was away on visiting Namibia-Windhoek on official duty
27th October -14th November 2012	Facilitated the running of Health Professions Education Department while the COD went on student-exchange programme to Oulu University Finland
12th October 2012	Facilitated the running of Health Professions Education Department while the COD attended KENET workshop on E-learning innovation in Nairobi
3rd-7th December 2012	Facilitated the running of Health Professions Education Department while the COD attended FUNZOKenya workshop in Nairobi
5th -16th August 2013:	Took charge of Health Professions Education Department as the COD went for annual leave
15th -20th September	Facilitated HPE departmental activities as the COD attended Trainer of trainer's workshop in Machakos
22nd January 2014	Facilitated HPE departmental activities as the COD attended meeting on dissemination of post training assessment at Nairobi

COMMITTEES SERVED

Jan 2024-To date	Proposal Writing, Research and Resource Mobilization in Gender Mainstreaming
May 2023- To date	Gender mainstreaming committee
Jan 2023-To Date	Departmental welfare committee
Nov 2020-To date	Departmental postgraduate studies committee
Nov 2020-To date	Departmental curriculum review and timetabling committee

Aug 2013-2014 Aug Consultancy Team Member MMUSTFUNZO Kenya project

OUTREACH/COMMUNITY SERVICE

- 3rd March 2023** **National Jiggers Awareness Day**, Khwisero Subcounty Kakamega County (Anti-jigger campaign)
- Treated over 300 people including school going children
- May, 2019-To date** *Board of management Member* at Talai High School, Kabartonjo, Baringo
- Chairperson, Academic Committee**
- Chair Academic Committee Meetings
 - Establish strategies to improve academic performance
- couragement talks on self-esteem to High School students*
- motivational and Mentorship Talks*
- courage and reward/motivate teachers*
- August 2021** Organized and participated in *Cooperate Social responsibility on Tree planting* at Mahiakhalo Primary School, Kakamega County
- Motivational and Mentorship Talks
- July, 2021** Organized and participated in *Cooperate Social responsibility talk on Reproductive health (13-20 years' girls)* in Siaya County, Ugunja Subcounty, Umina secondary school, Umala Village
- motivational and Mentorship Talks*
- 2015-2018 June** *Vice chairperson* of Kenyan students in Wuhan Association (KENSWA) China
- In charge of welfare of Kenyan students in Wuhan
 - Campus Representative in HUST
- 30th November, 2019** Organized and participated in *medical camp Outreach in Baringo County* in collaboration with Masinde Muliro University of science and Technology, department of Optometry and vision sciences
- Treated over 500 people with various ailments
- 14th November 2015** Participated in *Wuhan international Christian Fellowship sports tournament* held at China Central Normal University sports ground Wuhan China
- 23rd July 2016** Participated in *Wuhan international Christian Fellowship indoor sports tournament* held at Huazhong University of Science and Technology sports complex Wuhan China

SHORT COURSES/TRAINING AND PROFESSIONAL DEVELOPMENT

- January-March, 2025** **Oxford climate society** - School of Climate change online course
- March, 2025** **Biosafety And Biosecurity** Annual Refresher Training
- 13 Nov, 2023-5th Feb 2024** Certificate course in **introduction to grant writing** for clinicians, researchers and healthcare professions by Bio ventures for global Health

22-30 September 2023	Completed Collaborative Institutional Training Initiative (CITI) program course on Biomedical Research Investigators offered by Havard University
15-22 September 2023	Completed Collaborative Institutional Training Initiative (CITI) program courseon Biomedical Responsible conduct of Research offered by Havard University
20th-22nd April, 2022	Staff peer education training sponsored by Masinde Muliro University of Science and Technology at Golf Hotel Kakamega.
18th October-14th December 2021	Wits Digital Campus Virtual course: Gender in Science, Technology and Innovation organized by South African Research and Innovation Management Association (SARIMA)
August 10, 2021.	Participated in the Online Data Collection Tools and Data Analysis Training held at Masinde Muliro University of Science and Technology
June 7th-July 4th 2021	PedaL Online Course on: Technology for Transformative Pedagogy organized by Partnership for African Social and Governance Research (PASGR)
2nd -6th Sept 2019	Attended and completed Pilot Foundations of Bioethics Certificate Course Organized by CBEC KEMRI- Bioethics Training Initiative
24th-28th Feb, 2014	Attended training on Adult Anti-retroviral Therapy Training organized by Masinde Muliro University collaboration with Funzo Kenya
23rd-24th Jan,2014	Participated in Curriculum Development and Review workshop for Public Universities in Kenya at Masinde Muliro University of Science and Technology
11-13 Nov, 2013	Participated in Integrated Human Resource Information System Training organized by Ministry of Health in collaboration with USAID, Funzo Kenya
5th-14thAugust, 2013	Coordinated and participated in training on Prevention of mother to child transmission (PMCTC) organized by Masinde Muliro University collaboration with Funzo Kenya
July 25-27,2012	Participated in Research Proposal Writing Training Workshop at Masinde Muliro university organized by DAAD/National Council for science and Technology
June 20-21, 2012	Participated in Induction Training on E-Learning (Moodle Enviroment) at Masinde Muliro University of Science and Technology
Oct 3-5, 2011	Attended and participated in Pedagogy in higher learning Training at Kampala International University (Dar es Salaam)
March 9th,2010	Participated in training on Basic CT scan and MRI interpretation at Saint Louis University, Philippines

WORKSHOPS/ WEBINARS AND CONFERENCES ATTENDED

31st March – 4th April 2025	Capacity Building on the Implementation of the Kenya National TVET Quality Assurance Framework and Internal Quality Assurance System workshop at Taita Taveta National Polytechnic
27 th February, 2025	Piloting supervision and mentorship framework Workshop: <i>Building capacity for effective supervision and Mentorship of female postgraduates in STEM</i> Workshop, at Bishop Stam
5-7 th February, 2025	Masinde Muliro University of Science and Technology Leadership Program Workshop: <i>Shaping Africa's Next Generation of Science Leaders</i> at Golf Hotel, Kakamega
13 th -15 th November, 2024	Attended African Researcher Career Development Workshop , Protea Hotel Marriott Wanderers in Johannesburg, South Africa: (<i>Grant writing, collaboration building, scientific presentation, and leadership Workshop</i>)
7-9 th August, 2024	Attended the Kenya-Africa Science Leadership Program (Ke-ASLP) Workshop on Career Development and Leadership for Early Career African Scientists at Savelberg Retreat Centre, Ngong Road, Nairobi.
28 th April, 2023	Attended Laboratory diagnostics, antibiotic resistance and Frontline research in Neisseria gonorrhea international perspective Webinar: by international federation of Biomedical laboratory Science
10 th Nov, 2022	Attended seminar “ Balik Scientits Revisits IBS-UPLB ” of the institute of biological sciences, College of arts and science, University of Philippines Los Banos
Oct 31st -Nov 4th, 2022	Attended Sustainable Development for HIV health scientific writing workshop sponsored by the National Institutes of Health (NIH) Fogarty International Center (FIC), at ICIPE Mbita Point
28 th Oct 2022	Attended and participated in 1st Biophysical Society sponsored conference on Biophysics, Future of Health interventions virtually held in Egerton University, Njoro, Kenya
22 nd Oct 2022	Attended Microbiology Consortium of Philippines webinar on “ Engineering probiotic yeast for drug delivery in the large intestines ”
21 st Oct 2022	Participated in Biophysical Society sponsored conference on sensitization, dissemination and advocacy of biophysical science with Training in Nanoscience and Nanotechnology held at Masinde Muliro University of Science and Technology, Kenya
14 th Oct 2022	Participated in Biophysical Society sponsored conference on Demystifying Biophysics Education and Research in Africa: held at Masinde Muliro University of Science and Technology, Kenya: An integral Approach
June 2 nd -3 rd 2022	Participated in the Masinde Muliro university of Science and Technology Workshop “ Cultivating the biosafety and Biosecurity Program for global competitiveness ” sponsored by IFBA

May 19th-21st 2021	Attended the 14th Multidisciplinary Virtual Conference on “ Innovative Technology Transfer for Universal Health Care (UHC); Food Security; Affordable Housing and Manufacturing for Sustainable Development. ” Held at Masinde Muliro University of Science and Technology (MMUST)
15th June-13th July 2020	Attended virtual onsite training workshop on Research and Grants Management run by the BRECCIA project and South African Research and Innovation Management Association (SARIMA)
19th -21st June, 2019	Attended 13 th multi-disciplinary international conference, Masinde Muliro University of Science and Technology
16th April 2010	Attended a conference on Cardiovascular Essentials: Basics and Beyond organized by Philippine Heart Association
6th March, 2010	Attended conference organized by The Philippine Society of Parasitology INC on A Revisit of the Neglected Tropical Parasitic Diseases
23rd Jan ,2010	Attended conference on Microbes in Action: Monitoring, control and prevention organized by the Philippines Society For Microbiology INC
25-26 February,2010	Attended conference on “ Strengthening and simplifying Approach to women’s Health Care ” organized by thePhilippines society of physicians
7th November, 2009	Attended a conference on Global Alert! Microbes at work: Are we ready? Organized by the Philippines Society For Microbiology INC
23rd-24th October, 2009	Attended the 2 nd International Annual PSCB conference and General meeting “ Cell Biology in Health and Medicine ” organized by the Philippine Society for Cell Biology
18th June 2009	Attended and participated in workshop organized bythe Institute of Graduate Studies and Graduate Students Association of Central Luzon State university, Philippines held a workshop on “ Are We Ready to Fight Dreadful Disease? ”

ORAL PRESENTATIONS IN CONFERENCES/ PUBLICATIONS

28th Oct 2022	Attended 1st Biophysical Society sponsored conference on Biophysics, Future of Health interventions virtually held in Egerton University, Njoro, Kenya Participated in oral presentation on Microencapsulation of probiotics for treatment of gastrointestinal disorders
19-21 November 2021	Attended the 3 rd International Symposium on nanocellulosic material virtually held at Guangzhou, China: Participated in oral presentation on Preparation and evaluation of hydrogel capsules for encapsulation of probiotics for oral delivery of Bovine Serum Albumin

- 31st August 2021** Participated in Masinde Muliro University of Science and Technology 1st Blended Research dissemination conference. Oral Presentation on **Ethnomedicinal uses of stingless bee honey and conservation of native stingless bee colonies in Baringo County, Kenya**
- May 20-22, 2017** Attended the 1st International Symposium on Nanocellulosic Materials, at Hangzhou, Zhejiang, China. Participated in oral presentation titled as **"Biofabrication based on microbes: Magnetic manipulation of *Gluconacetobacter xylinus* for ordered cellulose production"**
- 4th-8th Sep, 2012** Attended 8th Annual International Conference at Moi University on Adaptations to Global Dynamics Challenges and Opportunities. Participated in oral presentation on **"Knowledge. Attitude and practices of students enrolled in health-related courses towards Human Papillomavirus at Saint Louis University, Philippines"**

POSTER PRESENTATION IN CONFERENCE

- Oct 18th -22nd, 2023** Poster Presentation at American Society of Tropical Medicine and Hygiene 2023 annual meeting, held in Seattle, Washington on **"Gram (-) Bacteremia is associated with increased burden of childhood Severe Malarial Anemia in a holoendemic Plasmodium falciparum transmission region of Western Kenya"**
- Oct 30th -Nov 3rd, 2022** Poster Presentation at American Society of Tropical Medicine and Hygiene 2022 annual meeting, held in Seattle, Washington on **"Antimicrobial resistance patterns in clinical isolates from children with bacteremia and malaria in a holoendemic *Plasmodium falciparum* transmission region of western Kenya"**

CONFERENCE /WORKSHOP ORGANIZED

- February 5-7th 2025** Organizer/Mentor in Masinde Muliro University of Science and Technology Science Leadership Program- *"Shaping Africa's Next Generation of Science Leaders"* **Workshop for Early Career researchers**
- March 22, 2023** **Organizer and Rapporteur in Synthetic biology training Workshop**
Introduction to Synthetic biology
Applications of Synthetic biology in biology and biophysics
- October 2022** **Organized Networking conference on Sensitization, Dissemination and Advocacy of Biophysical Science among the Staff and Students of the University.** Sponsored by Biophysical society- Awarded

ACHIEVEMENTS

- Spearheaded collaboration between Huazhong University of Science and Technology and Masinde Muliro University of Science and Technology department of medical laboratory science

PUBLICATIONS

Book chapter

1. M. W. Ullah, S. Manan, Sabella J. Kiprono, G. Yang: Synthesis, structural, and physico-mechanical characteristics of bacterial cellulose In: *Nanocellulose: From Fundamentals to Advanced Materials*, First Edition. Edited by Jin Huang, Alain Dufresne, and Ning Lin © 2019 Wiley-VCH Verlag GmbH & Co. KGaA. Published **2019** by Wiley-VCH Verlag GmbH & Co. KGaA.

Book

1. Sabella Kiprono, Suge Titus K., Gaudeli A. Reyes: *Human Papillomavirus (HPV): Knowledge, Attitude and Practices of Students enrolled in Health Related Courses at Saint Louis University towards HPV*. Publisher: LAP LAMBERT Academic Publishing (October 30, 2012). ISBN-10: 365925293X ISBN-13: 978-3659252938

Journal publication

1. Bett, Timothy, **Sabella J. Kiprono**, Jane Macharia, Kipyegon John Kochei, Humphrey Agevi, Bartholomew N. Ondigo, Gladys J. Mengich, and Sammy Kimoloi. "Nest Ecology, Architecture, and Behaviour of the Stingless Bee (*Meliponula Beccarii*) in Baringo County, Kenya." *Journal of Apicultural Research*, May, 2025pp1–11.
2. Erick Kiprotich Ngetich, Otieno Laban Sterly Makori, **Sabella Kiprono**, Dominic Marera Biochemical Analytes Stability in Refrigerated (2 -8°C) and Frozen (-20°C) Serum Samples at Kericho County Hospital Laboratory, Kenya; *Science Mundi*. Vol 5(1) **2025**, pp 63-71
3. Sarah Karauki Kindiki, Peter Kuloba Nyongesa, Nyabera Nicholas Mogoi, **Sabella Kiprono**; The role of *Pseudomonas aeruginosa* in surgical site infections in Sub-Saharan Africa. *Science Mundi*, Vol 5(1) **2025**. Pp 8–22 71
4. Sarah Kindiki, Nyabera Nicholas Mogoi, **Sabella Kiprono**; Incidence and Risk Factors of Surgical Site Infections: Insights from Kakamega County General Hospital in Kenya African; *Journal of Empirical Research* Vol 6(1) **2025**, pp 510-517
5. **Sabella Kiprono**, Josephine Wambani, Vincent Langat, Julius Rono, Zhijun Shi, and Guang Yang: Microencapsulation of Probiotics and their Application: Review of Literature: *ES Food Agrofor.*, **2024**, 17, 1106
6. Christine Chepkemai, Timothy K Bett, Elias Mandela, Gladys Chunge, **Sabella J Kiprono**, Jared Onyancha, Sammy Kimoloi: Antimicrobial and Phytochemical properties of stingless bee *Plebeinahldebrandti* honey and pollen from Baringo County, Kenya; *World Journal of Pharmacy and Pharmaceutical Sciences Volume 13, Issue 9*, 97-112, **2024**
7. Christine Chepkemai, Timothy K Bett, Elias Mandela, **Sabella Kiprono**, Jared Onyancha, Sammy Kimoloi: In-vitro Antimicrobial Effects and Phytochemical Contents of Stingless Bee *Meliponula beccarii* Honey and Pollen from Baringo County, Kenya: *The Journal of Phytopharmacology* **2023**; 12(6):366-376
8. **Sabella J. Kiprono**, Gladys Mengich, Bartholomew N. Ondigo, Charles Mutai and Sammy Kimoloi; Therapeutic uses of stingless bee honey by traditional medicine practitioners in Baringo County, Kenya: *Journal of Pharmacognosy and Phytotherapy* **2022**

9. Erick Ngetich, **Sabella Kiprono**, Dominic Marera: Stability of Selected Biochemical Analytes in Serum Stored at Room Temperature for 24 Hours at Kericho County Referral Hospital, Kenya. *East African Journal of Health and Science* **2022** 5 (1), 300-310.
10. **Sabella Kiprono**, Gladys Mengich, Jackline Kosgei, Charles Mutai, Sammy Kimoloi: Ethnomedicinal Uses of Stingless bee honey among native communities of Baringo County, Kenya. *Scientific Africa* (17) **2022**
11. Magondu, R. N., Ramesh, G. P. & **Kiprono, S. J. (2022)**. Isolation and Identification of Bacteria Present on Frequently Used Fomites in University of Eastern Africa Baraton in Nandi County, Kenya. *Journal of Research Innovation and Implications in Education*, 6(2), 382 – 388.
12. Emily G. Kiptui, **Sabella J. Kiprono**, Gladys J. Mengich: Risk factors of visceral leishmaniasis among residents of Baringo County, Kenya; *International Journal of Community Medicine and Public Health* **2021** Nov;8(11):5251-5257
13. Hellen Jeruto Sawe, **Sabella J Kiprono**, Tom Were: Performance of acid-fast techniques and genexpert in diagnosing pulmonary tuberculosis in Uasin Gishu county health facilities, Kenya; *IP International Journal of Medical Microbiology and Tropical Diseases* **2021**;7(3):165–170
14. **Sabella J. Kiprono**, M.W. Ullah & G. Yang: Encapsulation of *E. coli* in biomimetic and Fe₃O₄-doped hydrogel: structural and viability analyses; *Applied Microbiology and Biotechnology* **(2018) 102:933–944**.
15. **Sabella J. Kiprono**, M.W. Ullah & G. Yang: Surface engineering of microbial cells: Strategies and applications: *Engineered Science*; **(2018)**, 01, DOI: 10.30919/es.180325.
16. Geoffrey Arasa Ouno, Scolastica Chepngetich Korir, Joane C. Cheruiyot, **Sabella J. Kiprono**: Isolation, identification and characterization of urinary tract infections bacteria and the effect of different antibiotics (I2224-3186, VOL 13, NO. 6, **2013**)
17. Eliakim Mbaka, Godfrey Omare, Geoffrey Arasa Ouno, Benard Moronge Mabeya and **Sabella J Kiprono** "Molecular Identification of Soil Bacteria by 16S rDNA Sequence" , Vol 3, No 14 (**2013**) pp 51-58.
18. Suge T.K, Wilda O, **Sabella J. Kiprono**, Jeridah M, Enock O, Awareness and Attitudes of Healthcare Professionals in Baguio-Benguet towards Adverse Drug Reaction Reporting: A Cross-sectional Study Vol 2, No 7 (**2012**)
19. Wilda O, **Sabella J. Kiprono**, Jeridah M, Enock O, Suge T.K, Efficacy of Plant Extracts Against Multi-Drug Resistant *Escherichia Coli* from Urinary Tract Infection (ISSN 2224-3208, VOL 2, NO.7, **2012**)
20. Jeridah Moindi, Enock Onyambu, **Sabella J. Kiprono**, Suge Titus K, Wilda Onyancha "Studies of Biodegradation of Ipomea Carnea Weed from Kavinadu Big Tank in Pudukkottai District (India)" Vol 2, No 6 (**2012**)
21. **Sabella J. Kiprono**, Awuoche Erick, Suge Titus K, Wilda Onyancha, Onyambu Enock, Jeridah Moindi "Knowledge. Attitude and practices of students enrolled in health-related courses towards Human Papillomavirus at Saint Louis University, Philippines" Vol 2, No 6 (**2012**)
22. Mengich, J. Gladys and **Kiprono J. Sabella**: Identification of competencies for training: A case study on Physiotherapy course at Kenya Medical Training College, Nairobi. *Journal of Natural Sciences Research* Vol.2, No.8, **2012**; ISSN 2224-318

RESEARCH INTERESTS

1. Designing Delivery systems: Co-encapsulation of probiotics with antioxidants for treatment of intestinal disorders
2. Climate change and health
3. Biomaterials-Bacterial cellulose production and its biomedical application
4. Ethno medicinal uses of medicinal products and its antimicrobial profiles (stingless bee honey)
5. Neglected tropical diseases (Leishmaniasis)
6. Cyber-biosecurity and risk management

GRANTS /FUNDING

- **Leaders of Africa Institute-** Grant Writing and Funding (GWF) Program **2025 (USD 3000)**
- **2025 Travel Grant from VALIDATE** (Vaccine development for complex Intracellular neglected pathogens)– **£1,600**
- A grant from Royal Society of Tropical Medicine and Hygiene (RSTMH) in partnership with CIFF (**2024-2025 Early Career Grants programme**): *Geographical Distribution, Predisposing Factors, and Mitigation of Visceral Leishmaniasis in Baringo County, Kenya (PI) (GBP 3875) code no: CIFF2468*
- **WHO grant from The Alliance for Health Policy and Systems Research (2024-2026):** *Using System Dynamics Model to Improve the Efficiency and Effectiveness of Community Health Promoters in Kenya's Health System(CO-PI) (USD 160,000).*
- **Postdoctoral Fogarty Global Health Grant;** (Harvard University, Boston University, Northwestern University and University of New Mexico Consortium (**HBNU**). **Co-encapsulation of *Lactiplantibacillus plantarum* and Ferulic acid for oral delivery(PI) (July 2023-June 2025) (USD 41,000).**
- **CRDF GLOBAL Grant:** Project Title: *Masinde Muliro University of Science and Technology Cyber Biosecurity Enhancement.* Grant Number: 71198 (**2023/2024) (CO-PI) (USD 20,000)**
- Biophysical Society **Networking Event Mini-Grants (2022): Event title:***Sensitization, Dissemination and Advocacy of Biophysical Science among the Staff and Students of the University. (PI) (USD 500)*
- Masinde Muliro University of Science and Technology **RESEARCH FUNDS(URF)** academic year **2019-2020 (MMU/COR:40005(039).** *Project title: Ethno medicinal uses of stingless bee honey and its impact on conservation of native stingless bee colonies in Baringo County, Kenya. (PI) (USD 10,000)*

AWARDS AND HONOURS

- **Travel Grant Award from VALIDATE (V**Accine**deve**Lopment for complex Intracellular neglected**DpA**Thog**Ens**)– To attend VALIDATE Annual Meeting 2025, from 29 September to 1 October 2025, at the Lord Charles Hotel in Cape Town, South Africa.
- Grant Writing and Funding (GWF) Program **2025 Award- Leaders of Africa Institute-**
- 2025 Climate and Development Knowledge Network **(CDKN) Africa Early-Career Researchers Fellowship Award (May-December 2025)**
- **African Career Development 2024 workshop Award** by The Academy of Medical Sciences in UK, The Academy of Science of South Africa and The Network of African Science Academies.
- **Postdoctoral Fogarty Global Health Fellow Award;** (Harvard University, Boston University, Northwestern University and University of New Mexico Consortium **(HBNU)(July 2023-June 2025).**
- Huazhong University of Science and Technology (China) Biomaterials, Bio macromolecular Bio fabrication laboratory **Excellent paper award2018.**
- Huazhong University of Science and Technology (China) **Academic excellent award2016-2017).**
- Huazhong University of Science and Technology (China) Biomaterials Bio macromolecular Bio fabrication **Laboratory Research award [2016/2017].**
- Chinese Council Scholarship **(CSC) Award-** Huazhong University of Science and Technology (China) to study doctorate Degree **(2014-2018).**

THESIS EXAMINATION

PhD thesis examined

- Seasonal phenotypes and genotypes of enteric bacteria and antibiotic resistance among diarrhaeic children seeking treatment at Mbagathi Hospital, Nairobi city, Kenya (*Mark Kilongosi 2021*).
- Phenotypic, Genotypic and azole resistance characterization of Candida species from clinical specimens in Nairobi County, Kenya (Errols Cheruiyot Sigei).

Master Thesis examined

- Prevalence and determinants of HIV pre-exposure and post exposure prophylaxis use among young adults in Kwisero Subcounty, Kenya (*Abubakar Abdallah, 2024*)
- Laboratory reference intervals for routinely analyzed iron profile parameters in healthy adult population aged 18-64 years, in Uasin Gishu, Kenya (*Kasimu Willington Mutunga, 2024*)
- Prevalence, genotypic characterization and coinfection rate of non-tuberculous mycobacterium in patients with presumptive tuberculosis (*Anne Akumu Ochayo 2023*).
- Haematological Response to iron and folic acid supplementation among expectant mothers attending Kakamega County Referral hospital Kenya (*Dennis Kirui 2022*).

- Knowledge, attitude and perception of contact lens wear by adults with refractive errors in Masinde Muliro university of science and technology, kenya (*Chikasimbori Timothy 2022*).
- Predictors of Male Partner Involvement in Promoting Antenatal Care and Skilled Delivery Attendance in Bumula Sub-County in Bungoma County (*Rose Nyangau 2021*).
- Evaluation of thyroid cytomorphology and hormonal profiles of patients presenting with enlarged thyroid gland at Moi Teaching and Referral Hospital” *Ndichu Elias Ngure (2019)*
- Anaemia burden and predictors among adults defaulting antiretroviral treatment at Siaya County Referral Hospital, Western Kenya: *Philemon Wafula Makhanu (2018)*.
- Utilization of Information and Communication Technology in Teaching and Learning in Medical Training Colleges within Kakamega County: *Janepher Abuti Ogot (2018)*.

REVIEWER/ MENTORSHIP/ SUPERVISION

REVIEWER

- **External reviewer at Mawazo institute (Mawazo Fellowship programme)** -Reviewed proposals for early career researches for the award of the fellowship

MENTORSHIP

- Mentor- 2025 Mawazo Fellowship Mentorship Scheme

SUPERVISION

Supervision to completion (PhD Students)

1. *Sarah Kindiki*: Characterization of *pseudomonas aeruginosa* recovered from surgical sites at Kakamega County General Hospital

Supervision to completion (Masters Students)

1. *Kiptui Emily Giken*: The burden of visceral leishmaniasis and associated risk factors in Baringo county
2. *Hellen Jeruto Sawe*: Assessing performance of acid-fast techniques and genexpert in diagnosing pulmonary tuberculosis in Uasin Gishu county health facilities, Kenya
3. *Magundu Richard*: opportunistic bacteria types on frequently used fomites in University of Eastern Africa Baraton in Nandi County
4. *Christine Chepkemoi*: Antimicrobial activities of honey and pollen of *meliponulabeccarii* and *plebeinahildebrandti* from baringo county, Kenya
5. *Vincent Kibet Langat*: Platelet-rich plasma-functionalized cellulose nanocrystal as a potential skin wound-healing biomaterial

Supervision ongoing

PhD students (ongoing)

1. *Hellen Sawe*: tuberculosis, Haematological parameters among HIV Positive tuberculosis patients attending Moi Teaching and Referral hospital, Kenya

2. *Nelly Ogada*: Cytological and Proteiomic Characterization Of *Schistosoma Haematobium* Associated Urothelial Abnormalities Among Women Of Reproductive Age In Kwale County
3. *Emily Kiptui Gigen*: Geographical distribution, predisposing factors, and mitigating of Visceral Leishmaniasis in Baringo County, Kenya
4. Daniel Korir: Evaluation Of The Effectiveness Of Undergraduate Physiotherapy Program Using Context, Input, Process And Product (CIPP) Model, In Kenyan Universities

Master's students (ongoing)

1. *Erick Kiprotich Ngetich*: Storage conditions and stability of 15 selected blood biochemical analytes in samples stored over a defined duration (state the duration if possible): *a case study of Kericho county referral hospital*
2. *Priscilla Aywa*: Evaluation Of Synergistic Effects Of Bacterial Cellulose *Rosmarinus Officinalis* Extracts Composite Against Selected Bacterial Wound Infections And Its Phenotypic Characterization
3. *Martin Kimrut Mudogo*: Evaluation of diversity of zoonotic gastrointestinal parasites and hematological derangement among cattle in Elgeyo-Marakwet County, Kenya

PROFESSIONAL BODIES

- Kenya Medical Laboratory Technology and Technician Board (Reg No: A018643)
- Teachers service commission-TSC/506589Y

AFFILIATED SOCIETIES/ NETWORKS

- Royal Society of Tropical Medicine and Hygiene ID: 0023938
- Biophysical Society ID: 114703
- American Society of Tropical Medicine and Hygiene ID 74187
- American society of Microbiology Membership ID: 57090466
- International Associate member of the Society for General Microbiology Membership ID: 20001123
- VALIDATE Network Associate-Vaccine development for complex intracellular neglected pathogens

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