



*In Search of Better Health*

# 13<sup>th</sup>

## KEMRI ANNUAL SCIENTIFIC & HEALTH (KASH) CONFERENCE

### PROGRAM BOOK

**15<sup>th</sup> - 17<sup>th</sup>,  
FEBRUARY, 2023**

SAFARI PARK  
HOTEL, NAIROBI,  
KENYA.



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*In Search of Better Health*

# **The 13<sup>th</sup> KEMRI Annual Scientific & Health (KASH) Conference**

15<sup>th</sup> - 17<sup>th</sup> February 2023  
SAFARI PARK HOTEL,  
NAIROBI, KENYA

## **Theme:**

*Rethinking strategic research-for-health through partnerships,  
innovation, evidence generation and knowledge sharing in  
post-pandemic recovery era*

## **Organized by:**

**Kenya Medical Research Institute (KEMRI)**

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**Nairobi, Kenya.**

**[www.kemri.go.ke](http://www.kemri.go.ke)**

# ACKNOWLEDGEMENTS

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# MESSAGE FROM DIRECTOR GENERAL KEMRI **PROF. SAM KARIUKI**

I am extremely delighted to be part of the the 13<sup>th</sup>, KEMRI Annual Scientific and Health conference which we popularly refer as “KASH”. KASH has had an incredible journey, one which began with its establishment in 2010 at the KEMRI Training Centre with a handful of scientists and mostly KEMRI members of staff. It was incredible that a decade later, over 600 participants, most among the best rated brains, not just in the country, but globally, are meeting in this picturesque auditorium.

Since its humble inception, KASH is today a special event in the Institute’s calendar which serves to promote health science through dialogue and exchange among scientists, health practitioners, development partners and policy makers with an average of 500 participation annually.

It is gratifying that findings, conclusions and recommendations from this conference are shared with the various arms of government and policymakers and contribute directly to national discourse including managing pandemics, Universal Health coverage (UHC) and measuring of scientific development trajectories.

It is therefore with great honor that I welcome you to this Conference from this 15<sup>th</sup> to 17<sup>th</sup> February 2023 with very rich scientific menu and being held alongside the two-day 4th Kenya National Malaria Forum (KNMF) that brings together experts and stakeholders involved in malaria control in the country. This is significant because both forums – KASH and KNMF seek to address specific, but similar needs that are relevant to contributing new knowledge from research and learnt lessons from key stakeholders in health and disease prevention strategies, control interventions and management that eventually inform policy and practice.

I am happy to note that an apt theme, **“Rethinking strategic research-for-health through partnerships, innovation, evidence generation, and knowledge sharing in post-pandemic recovery era”** is for 13<sup>th</sup> KASH conference. It also has several other sub-themes including Sustainable health systems, UHC and public health strengthening; Emerging research priorities on mental health and other non-communicable diseases; New frontiers on natural products, drug discovery and therapeutics; Research for effective management of sexual and reproductive health: adolescent, maternal and child health; Emerging and re-emerging infectious and parasitic diseases; Advances in genomics, diagnostics, vaccines and innovations in human health and effects of climate change, environment and one-health.

We are delighted that the Cabinet Secretary for Health, Dr. Susan Nakhumicha spared time to officiate during this joint opening ceremony.

I note with appreciation that 13<sup>th</sup> KASH recorded one of the highest abstract submissions of 253 that will be presented in 24 parallel oral sessions and 48 posters. The abstracts were received from different countries including the United State of America, Netherlands, Germany, Ghana, Scotland and from our neighbours Tanzania among others.

However, the heroes and heroines of 13<sup>th</sup> KASH Conference are you the participants who not only submitted abstracts but have also availed yourself to this conference. Indeed, we all know that without your valued participation, then we don’t have a conference.

On the same breath, I want on behalf of KEMRI, to appreciate and congratulate all our sponsors and partners, some who have remained steadfast over the last 12 years. There is no doubt that it is this wonderful co-operation and partnership among others which have made this KEMRI what it is today-A pearl in health research development not only in Kenya and Africa, but globally.

I most sincerely appreciate the KEMRI Board of Directors, led by our Chairman, Dr. Daniel M. Mbinda, my colleagues researchers and those in management and members of the KASH Organising Committee led by Dr. Cecilia Mbae. We remain grateful to the Government of Kenya through the Ministry of Health for guidance, financial support and leadership to the Institute and for this conference.

**Prof. Sam Kariuki**  
**Ag. Director General,**  
**KENYA MEDICAL RESEARCH INSTITUTE**



## CONFERENCE OVERVIEW, **DR. CECILIA MBAE**

It is a great honor to welcome you all to the 13<sup>th</sup> KEMRI Annual Scientific and Health Conference (KASH) 2022 which is being hosted physically as well as - virtually from 15<sup>th</sup> -17<sup>th</sup> February, 2023.

For the last 13 years KASH Conference & Exhibition has continued to provide a premier platform bringing together diverse actors in the health research. The 13<sup>th</sup> KASH conference's main theme is “**Rethinking strategic research-for-health through partnerships, innovation, evidence generation, and knowledge sharing in post-pandemic recovery era**”.

The theme is anchored on the following sub-themes: *Sustainable health systems, UHC and public health strengthening, Emerging evidence on mental health and other non-communicable diseases, New frontiers on natural products, drug discovery and therapeutics, Management of sexual and reproductive health; adolescent, maternal and child health, Emerging and re-emerging infectious and parasitic diseases, Advances in genomics, diagnostics, vaccines and innovations for human health and Effects of climate change, environment and one-health*

The KASH Conference is a core event within KEMRI's calendar of events that aims to bring together researchers, collaborators (local and international), policy makers and other stakeholders in medical research. This year, the Kenya National Malaria Forum is hosting their 4<sup>th</sup> KNMF Conference alongside the KASH Conference, we are expecting over 600 participants from various local, regional, and international institutions which signifies the importance of this premier scientific event.

The KASH Conference continues to provide great opportunities for sharing, cross-learning and mentoring of upcoming scientists as well as providing a platform for the discussions of the current health research challenges, exchange of new knowledge that will ultimately shape the future of health research in Kenya, Africa and globally.

This year's Conference features a rich and diverse menu of scientific content, with five plenary talks and 10 symposia with discussions on topical issues in health research. I am happy to report that we received a total of 253 abstract submissions which will be presented in 24 parallel oral sessions and 48 posters. These abstracts are from different countries including US, Netherlands, Germany, Ghana, Scotland, Tanzania among others. This means that KASH is now an international conference. We have also given our young scientists to showcase their research findings through the young investigators session which attracted 26 submissions, where the winners will be awarded. Besides this, there will be diverse opportunities to network with colleagues, form new acquaintances, and forge long-term partnerships from both in-person and the virtual interactive platform.

The conference will have distinguished Keynote and plenary speakers who are world class scientists with deep understanding and wealth of knowledge of not only disease burden, but practical knowledge of appropriate health interventions. The **Opening Keynote Address will be given by Dr Mercy Mwangangi, Topic: Spotlighting the essential role of investing in research for Health Systems Strengthening.**

The plenary speakers will be; *Dr. Roberts Frank who will present the “Relevance of periodontal disease in the context of HIV infection”;* *Prof Wallace Bulimo “The data revolution, how KEMRI is riding the fourth wave”;* *Dr. Beth Tippet “Knowledge mobilization for increasing the impact of your research” and Prof. Samson Muuo “Genomics advancements in Vaccine and Diagnostic development in Kenya”.*

We wish to thank our sponsors Kenya Commercial Bank (KCB) (Platinum) and Carramore International (Gold), and the more than 20 exhibitors who have partnered with us.

As the local organizing committee, we are delighted in devoting ourselves to provide leadership, information, and capacity leading to the enhancement of human health, and quality of life through dissemination of research findings, innovations and service delivery.

I encourage all participants to actively engage in the interesting explorations over the next three days and wish you a successful, fruitful, and a memorable conference.

**Cecilia Mbae, PhD**  
**Chair, KASH Organizing Committee**

# PROGRAM AT A GLANCE

## DAY ONE, WEDNESDAY 15<sup>TH</sup> FEBRUARY 2023

TIME	OFFICIAL OPENING SESSION & KEYNOTE ADDRESS					
0700-0900hrs	Arrival & Registration					
	Kenya National and East Africa Anthem					
0900 - 0910hrs	<b>KASH Conference overview:</b> Chair of KASH Organizing Committee, <b>Dr. Cecilia Mbae</b>  <b>KNMF Conference overview:</b> Chair of KNMF Committee, <b>Prof. Isabella Oyier</b>					
0910 - 0945hrs	<b>Opening Remarks</b> Ag. Director General and CEO, KEMRI <b>Prof. Sam Kariuki</b> Chairman, KEMRI Board of Directors- <b>Dr. Daniel Mbinda</b> USAID Health Population and Nutrition Director - <b>Dr. John Kuehnle</b> WHO Representative - <b>Dr. Abdourahmane Diallo</b>					
0945-0950hrs	<b>Opening Remarks and welcoming of the Chief Guest</b> Director General- Ministry of Health - <b>Dr. Patrick Amoth</b>					
0950hrs-1005hrs	<b>Address and Official opening by Chief Guest-</b> Cabinet Secretary- Ministry of Health - <b>Dr. Susan N. Wafula</b>					
1005 - 1035hrs	Opening Keynote Address: <b>Dr. Mercy Mwangangi</b> <b>Topic: Spotlighting the essential role of investing in research for Health Systems Strengthening</b>					
Master of Ceremony:	Mr. John Musau					
Session Chair	Dr. Benjamin Tsofa & Dr. Andrew Mulwa					
Rapporteur	Dr. Damaris Matoke-Muhia & Dr. Katherine Kilonzo					
<b>1035 – 1115hrs TEA BREAK</b>						
<b>SCIENTIFIC SESSION 1 – 6 PARALLEL SESSIONS</b>						
1115 - 1245hrs	1115 - 1245hrs	1115 - 1245hrs	1115 - 1245hrs	1115 - 1245hrs	1115 - 1245hrs	
Scientific Session 1: TB-1	Scientific Session 2: Vector Biology-1	Scientific Session 3: NTDs and One Health	Scientific Session 4: Natural Products	Scientific Session 5: Public Health-1	Scientific Session 6: MCH-1	
VENUE: Amboseli	VENUE: Tsavo	VENUE: Samburu	VENUE: Bogoria	VENUE: Mt. Kenya C	VENUE: Mt. Kenya D	
Session Chair: Dr. Jane Onga'ngo	Session Chair: Dr. Luna Kamau	Session Chair: Prof. Samson Muuo	Session Chair: Dr Beatrice Irungu	Session Chair: Dr. Sam Aketch	Session Chair: Dr Benson Singa	
Rapporteur: Barbara Miheso	Rapporteur: Tiffany Wandera	Rapporteur: Joanne Jepkemei	Rapporteur: Dr. Sospeter Njeru	Rapporteur: Sharon Mukua	Rapporteur: Schiller Mbuka	
<b>1245-1345HRS: LUNCH BREAK</b>						
<b>1345-1430HRS POSTER SESSION (Abstract No. 001-022)</b>						
<b>SCIENTIFIC SESSION 7, AND SYMPOSIUM 1-5</b>						
1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	
Scientific Session 7: Young Investigators	Symposium 1 Knowledge Management	Symposium 2 PAMCA	Symposium 3: Family Health Unit (FHU)	Symposium 4: NUITM	Symposium 5: Frontiers in Tungiasis	
VENUE: Amboseli	VENUE: Tsavo	VENUE: Samburu	VENUE: Bogoria	VENUE: Mt. Kenya C	VENUE: Mt. Kenya D	

<b>Session Chair:</b> Dr. Joseph Mwangangi, Dr. Doris Njomo	<b>Session Chair:</b> Prof. Jennifer Orwa	<b>Session Chair:</b> Dr. Simon Muriu	<b>Chair:</b> Dr. Richard Omoro	<b>Session Chair:</b> Prof. Satoshi Kaneko	<b>Session Chair:</b> Dr. Lynne Elson
<b>Judges:</b> Dr. Limbaso Konongoi, Francis Kimani	<b>Rapporteurs:</b> Dr. Benjamin Tsofa & Eunice Wambui	<b>Rapporteur:</b> Dr. Lydia Kibe & Dr. Damaris Matoke	<b>Rapporteur:</b> Dr. Victor Akelo & Sheila Mbaabu	<b>Rapporteur:</b> Dr. Muuo Nzou & Susan Kavai	<b>Rapporteur:</b> Ulrike Fillingner & Dr. Sophie Uyoga

### END OF FIRST DAY

## DAY TWO, THURSDAY 16<sup>TH</sup> FEBRUARY 2023

TIME	PLENARY SESSION
0700-0830hrs	<b>Arrival &amp; Registration</b>
0830- 0855hrs	Plenary Session 1: <b>Dr. Roberts Frank</b> - <i>University of Washington</i> Topic: Relevance of periodontal disease in the context of HIV infection
0855 - 0920hrs	Plenary Session 2: <b>Prof. Wallace Bulimo</b> - <i>Kenya Medical Research Institute</i> Topic: The data revolution, how KEMRI is riding the fourth wave
0920 -0945hrs	Plenary session 3: <b>Dr. Beth Tippet</b> - <i>Nyanja Health Research Institute in Malawi</i> Topic: Knowledge mobilization for increasing the impact of your research
0945-1010hrs	Plenary Session 4: <b>Prof. Samson Muuo</b> - <i>Kenya Medical Research Institute</i> Topic: Genomics advancements in Vaccine and Diagnostic development in Kenya
<b>Session Chair</b>	<b>Prof. Charles Mbogo</b>
<b>Rapporteur</b>	<b>Susan Kavai</b>

**1010 - 1045hrs**

**TEA BREAK**

1045 – 1245hrs	1045 –1245hrs	1045 – 1245hrs	1045 – 245hrs	1045 – 1245hrs	1045 – 1245hrs
<b>Scientific Session 8: TB-2</b>	<b>Scientific Session 9: COVID-19</b>	<b>Scientific Session 10: Health Systems-1</b>	<b>Scientific Session 11: NCDs</b>	<b>Scientific Session 12: Vector Biology-2</b>	<b>Scientific Session 13: Sexual Reproductive Health-1</b>
<b>VENUE: Amboseli</b>	<b>VENUE: Tsavo</b>	<b>VENUE: Samburu</b>	<b>VENUE: Bogoria</b>	<b>VENUE: Mt. Kenya C</b>	<b>VENUE: Mt. Kenya D</b>
<b>Session Chair :</b> Dr. Hellen Meme	<b>Session Chair :</b> Dr. Samoel Khamadi	<b>Session Chair :</b> Bridget Kimani	<b>Session Chair :</b> Dr Lydia Kaduka	<b>Session Chair:</b> Dr. Joel Lutomiah	<b>Session Chair:</b> Dr Betty Njoroge
<b>Rapporteur :</b> Barbara Miheso	<b>Rapporteur:</b> Janet Majanja	<b>Rapporteur :</b> Tabitha Kanyui	<b>Rapporteur :</b> Sarah Karanja	<b>Rapporteur:</b> Sheila Mbaabu	<b>Rapporteur:</b> Schiller Mbuka

**1245-1345HRS: LUNCH BREAK**

**1345-1430HRS POSTER SESSION (Abstract No. 023-045)**

**SCIENTIFIC SESSION 15, SYPOSIUM 6-10**

1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrs	1430 – 1700hrss	1430 – 1700hrs
<b>Scientific Session 14: Mental Health</b>	<b>Symposium 6 SERU</b>	<b>Symposium 7: NAPREDA</b>	<b>Symposium 8: Impact of Climate Change</b>	<b>Symposium 9: BOHEMIA</b>	<b>Symposium 10: Nanotechnology</b>
<b>VENUE: Amboseli</b>	<b>VENUE: Tsavo</b>	<b>VENUE: Samburu</b>	<b>VENUE: Bogoria</b>	<b>VENUE: Mt. Kenya C</b>	<b>VENUE: Mt. Kenya D</b>
<b>Session Chair:</b> Dr. Lucy Chite	<b>Session Chair:</b> Enock Kebenei	<b>Chair:</b> Dr. Festus Tolo	<b>Chair:</b> Prof. Inah Danquah	<b>Chair:</b> Dr. Marta Maia	<b>Session Chair:</b> Prof. Bernhards Ogutu
<b>Rapporteur:</b> Dr. Linus Ndegwa	<b>Rapporteur:</b> Carolyne Kithinji & Susan Kavai	<b>Rapporteur:</b> Dr. Peter Mwitari & Dr. Beatrice Irungu	<b>Rapporteur:</b> Dr. Eric Muok & Dr. Steve Wandiga	<b>Rapporteur:</b> Dr. Joseph Mwangangi	<b>Rapporteur:</b> Dr. Jeremiah Gathirwa & Kelvin Thiong'o

**END OF SECOND DAY**

## DAY THREE, FRIDAY 17<sup>TH</sup> FEBRUARY 2023

TIME		PARALLEL SCIENTIFIC SESSIONS , 15-20			
0700 - 0830hrs		Arrival & Registration			
PARALLEL SCIENTIFIC SESSIONS , 15-20					
0830hrs-1000hrs	0830hrs-1000hrs	0830hrs-1000hrs	0830hrs-1000hrs	0830hrs-1000hrs	0830hrs-1000hrs
Scientific Session 15: AMR-1	Scientific Session 16: Health Systems-2	Scientific Session 17: Genomics	Scientific Session 18: Public Health-2	Scientific Session 19: Sexual Reproductive Health-2	Scientific Session 20: HIV
VENUE: Amboseli	VENUE: Tsavo	VENUE: Samburu	VENUE: Bogoria	VENUE: Mt. Kenya C	VENUE: Mt Kenya D
Session Chair: Dr John Mwaniki	Session Chair: Dr Richard Mutisya	Session Chair: Dr Luna Kamau	Session Chair: Dr. Sam Aketch	Session Chair: Dr Betty Njoroge	Session Chair: Dr. Samoel Khamadi
Rapporteur: Kelvin Kering	Rapporteur: Ishmael Ahamed	Rapporteur: Tiffany Wandera	Rapporteur: Asiko Ong'aya	Rapporteur: Irene Thuo	Rapporteur: Hellen Koka
1000 - 1045hrs TEA BREAK					
PARALLEL SCIENTIFIC SESSION 21 – 24					
1045 – 1245hrs	1045 – 1245hrs		1045 – 1245hrs	1045 – 1245hrs	
Scientific Session 21: Health Systems 3	Scientific Session 22: MCH-2		Session 23: Malaria	Scientific Session 24: AMR-2	
VENUE: Amboseli	VENUE: Tsavo		VENUE: Samburu	VENUE: Bogoria	
Session Chair: Dr. Betty Njoroge	Session Chair: Dr. Benson Singa		Session Chair: Francis Kimani	Session Chair: Dr. John Mwaniki	
Rapporteur: Schiller Mbuka	Rapporteur: Lillian Mayieka		Rapporteur: Rukia Haji	Rapporteur: Kelvin Kering	
1300-1400HRS: LUNCH BREAK					

## CLOSING SESSION

1400-1600hrs	Master Of Ceremony: <b>Dr. Sophie Uyoga</b>
	Conference outcomes & resolutions Chief Rapporteur: <b>Dr. Steve Wandiga</b>
	Awarding Ceremony: <b>Dr. Vera Manduku</b>
	Sponsors and Exhibitors Session: <b>Prof. Charles Mbogo</b>
	Official Closing remarks <b>KASH Chair: Dr. Cecilia Mbae</b> <b>Ag. Director General &amp; CEO, KEMRI Prof. Sam Kariuki</b> <b>Chair KEMRI Board of Directors</b>
	Vote of thanks - <b>Dr. Damaris Matoke-Muhia</b>

**END OF CONFERENCE**

# KEY NOTE SPEAKER

## Dr. Mercy Mwangangi



### BIO

Dr. Mwangangi is a Health Economist and Policy Analyst with a background in Medicine. She has knowledge and experience in performing high quality Strategic Health Program Planning, Monitoring and Evaluation activities focusing on Universal Health Coverage and Primary Health Care with considerable experience in carrying out in depth Health Situation Analysis and producing of workable recommendations and guidelines on future program directions, incorporating international policies and standards, tailored to local needs

**Topic: Spotlighting the essential role of investing in research for Health Systems Strengthening**



# PLENARY SPEAKER

## Dr. Roberts Frank



### BIO

Dr. Roberts is a holder of BS, DDS, a certificate in periodontics, and PhD in Microbiology. He is a Professor of Periodontics, the University of Washington, the Associate Dean for Regional & Global Affairs, Director of the Regional Initiatives in Dental Education (RIDE) program and the Pre-doctoral Program Director in the Periodontics Department at the University of Washington School of Dentistry (UWSOD). He has over twenty-five years of experience in research and dental education. He has served as Chief of Periodontics at the Seattle Veterans Administration Medical Center since 1997 where he practices and teaches clinically, with an inter-professional team-care approach. Knowledgeable in experiential learning, Dr. Roberts will serve as a mentor candidate for the Training in Research in Oral Health (TRIOH): A multidisciplinary collaboration between Dentistry, Nursing, and Pediatrics to build up research capacity in global oral health. He has widely published his work in peer review journals.

### Topic: Relevance of periodontal disease in the context of HIV infection

#### Abstract:

Periodontitis is a chronic inflammatory disease that affects the supporting structures of the teeth and leads to early tooth loss and other significant comorbidities. It has been recognized as an early sign of HIV infection with serious complications in untreated HIV patients. This lecture will discuss the presentations of various periodontal infections and potential diagnosis and treatment options available to non-dentists.



# PLENARY SPEAKER

## Prof. Wallace Bulimo



**Topic:** The data revolution, how KEMRI is riding the fourth wave

### Abstract

How Can Data Science be Leveraged to Improve KEMRI's Research Impact?

The health research ecosystem is constantly evolving, and technology is a key driver in this evolution. One of the most promising technologies is data science, which has wide applicability and potential. The potential application of data science in health research, however, is suboptimal and is not fully appreciated or understood, despite the fact that institute scientists already have and continue to generate massive amounts of health-related research data on a daily basis as they pursue delivery of the institute's mission. Data science is an interdisciplinary field that extracts knowledge and insights from many structural and unstructured data, using scientific methods, data mining techniques, machine-learning algorithms, and big data. It draws upon statistics, computer science, and domain expertise to make sense of and gain new insights out of data. In health research, it can be used to analyze large and diverse amounts of data sets, identify patterns, and make predictions for individuals, populations or disease-causing pathogens. One such application is in precision medicine, a personalized approach to health-care that uses data to determine the most effective treatment options for each patient. Data scientists can guide prediction-medicine by identifying patterns in large amounts of data, such as genetic data, medical records, and clinical trial outcomes to tailor treatment options.

Another key application of data science in health research is in the analysis of population level health data, such as entire communities or countries. By analyzing data on the health of a population, data scientists are able to identify patterns and trends that can aid in the improvement of the population's overall health.

In addition, data science plays a crucial role in the fight against COVID-19. By analyzing data on the virus's spread, data scientists can identify patterns and predict its future spread. These predictions and associations inform public health policies and guide resource allocation.

Prof. Bulimo will discuss the importance of data science in the advancement of healthcare and health research, emphasizing on its applications, benefits, and the exciting future prospects of Data science for KEMRI in this field

# PLENARY SPEAKER

## Dr. Beth Tippet



### BIO

Dr. Barr is an epidemiologist with over 20 years of program and research experience in Southern and Eastern Africa. After completing her secondary school studies in Kenya, she attended university in the US before returning to Africa to serve in the public health arena. She worked with Baylor College of Medicine in Botswana and Malawi establishing training projects in pediatric HIV treatment before joining the US Centers for Disease Control and Prevention (CDC) in Malawi. Dr Tippet Barr then worked for several years in the prevention of mother-to-child transmission of HIV (PMTCT) and was a key team member in the development and implementation of the historic “PMTCT Option B+” approach with the Malawi Ministry of Health, when antiretroviral therapy was first offered to pregnant and breastfeeding women regardless of CD4 count or clinical stage. In 2015, Dr. Barr became the CDC-Zimbabwe Country Director, and in 2018 moved back to Kenya as CDC’s Western Kenya Director, working in collaboration with KEMRI’s Centre for Global Health Research to establish the Family Health Unit. In 2022 Dr. Barr left CDC-Kenya to found the Nyanja Health Research Institute in Malawi, an organization with a dual mandate to conduct high-impact research, and to train young researchers in how to disseminate their research findings with maximum impact.

### Topic: Knowledge mobilization for increasing the impact of your research

#### Abstract:

Knowledge mobilization is the intentional and coordinated effort to raise awareness of research findings locally, nationally, and internationally. It bridges the historical silos between health research and public sector health programmes, and creates a path through which we can streamline the process of turning research findings into health policy. In this presentation, we will examine how research findings typically move through the research to policy process, and then discuss how researchers can develop and apply a knowledge mobilization framework to their own research studies, positioning their findings to be more readily adopted by **policy-makers**.

# PLENARY SPEAKER

## Prof. Samson Muuo



### BIO

Muuo Nzou is an Assistant Principal Research Scientist, at the Center for Microbiology Research, Kenya Medical Research Institute and a Visiting Associate Professor, Nagasaki University. Previously, He worked as an Associate Professor, Institute of Tropical Medicine and Global Health, Nagasaki University, and a Principal Research Officer Nagasaki University, Institute of Tropical Medicine -Kenya Medical Research Institute Projects (NUITM-KEMRI PROJECT). He holds a MSc in Medical virology from Jomo Kenyatta University of Agriculture and Technology, a PhD in Medical Sciences from Nagasaki University and a Health Research Capacity Strengthening Postdoctoral Grant, Wellcome Trust, His interests in communicable and noncommunicable diseases focus on vaccine and diagnostics development, molecular epidemiology, surveillance and omics leading to drug resistance patterns in humans, where he has published extensively in these areas. He is also a member of surveillance cross-cutting sub-group of the World Health Organization (WHO) Diagnostic Technical Advisory Group (DTAG) for Neglected Tropical Diseases. He has mentored and supervised Masters and PhD students from different institutions internationally

### Topic: Genomics advancements in Vaccine and Diagnostic development in Kenya

#### Abstract:

Abstract Vaccine provide active defence for specific diseases, where's diagnostics provide means of detecting the diseases. Vaccines play a vital role in enhancing the body's immunity to defend against diseases while diagnostics are key in detecting diseases to ensure their treatment, control, surveillance and monitoring systems. Africa and Kenya has lagged behind in coming up with novel vaccines and diagnostics, mostly due to lack of equipment and limited skills. Over, the years, this has change and African scientists have embarked in research to identify candidate vaccine and diagnostic biomarkers. Exploratory research has been enhanced which is key in innovations and technology advancement. KEMRI, has taken lead in research for Vaccine and diagnostic research. This study reports applications of systems biology and immunology through bioinformatics, artificial intelligence and literature guided approaches to identify putative biomarkers that will be validated experimentally using cutting edge and molecular biology techniques including but not limited to next generation genomic sequencing, polymerase chain reaction, cloning and carbodiimide chemistry. The validated biomarkers will be used in pre-clinical testing which is vital in the future development of vaccines and diagnostic kits. To date, the study has been able to identify several putative biomarkers for SARS-COV2 vaccine and diagnostic development. Additionally, it has been able to develop and evaluate over 50 biomarkers for detection of several infectious diseases such as Leishmaniasis, Schistosomiasis, HIV, Trachomatis and Filariasis. Current developments focus on arboviruses, Echinococcosis, and cancer vaccines. Conclusion Development of candidate biomarkers for vaccine and diagnostic against diseases is a holistic manner for Africa nations to have custom made vaccines which might ultimately improve their performance.

Key words Genomics, Polymerase Chain reaction, biomarkers, next generation sequencing



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- 1. Master of Science (M.Sc.) 2-3 Year Programme
- 2. Doctor of Philosophy (Ph.D.) 3-4 Year Programme

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<b>MASTER OF SCIENCE (M.SC)</b>  <b>A. PUBLIC HEALTH PROGRAMME</b> 1. MSc. Public Health 2. MSc. Epidemiology and Biostatistics 3. MSc. Global Health  <b>B. BIOMEDICAL SCIENCES PROGRAMME</b> 4. MSc. Medical Microbiology 5. MSc. Medical Virology 6. MSc. Medical Mycology 7. MSc. Medical Parasitology and Entomology 8. MSc. Molecular Medicine  <b>C. MEDICINAL CHEMISTRY PROGRAMME</b> 9. Medicinal Chemistry 10. Medicinal Phytochemistry	The common regulations for all Masters degrees in the University shall apply.  The following shall be eligible for admission in KEMRI Graduate School under the JKUAT/KEMRI Collaboration: <ul style="list-style-type: none"> <li>o Bachelor's Degree, Second Class (Upper Division) in a relevant field of study or its equivalent from JKUAT or any other Institution recognized by JKUAT Senate.</li> <li><b>OR</b></li> <li>o Bachelor's Degree, Second class Honors (Lower Division) in a relevant field of study or its equivalent from JKUAT or any other Institution recognized by JKUAT Senate, with at least two years post-qualification work/research experience</li> <li><b>OR</b></li> <li>o Bachelor's Degree with a Pass and a Postgraduate Diploma in a relevant field of study.</li> </ul>
<b>DOCTOR OF PHILOSOPHY (Ph.D.)</b> (In the MSc areas above)	The minimum entry requirements of all PhDs in JKUAT shall apply.

More information about the programmes are available on our website: [www.kemri.go.ke/graduate-school/](http://www.kemri.go.ke/graduate-school/)

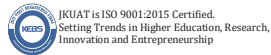
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Candidates seeking admission are required to fill out application forms obtained from the offices/Website indicated below upon payment of non-refundable application fees of Kshs.1,500/-. Completed application forms and the original receipts for application fees should be returned to the **KEMRI Graduate School** (Located at the Training Centre, KEMRI HQ, not later than **April, 14 2023**).

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# KEMRI

## CBRD Genomics and Bioinformatics Unit



### Background

Genomic sequencing is used to understand genetic material of organisms of interest. It is important in trying to track changes/mutations, tracking the spread of pathogenic organisms and how these changes may affect public health.

The genomics and bioinformatics unit, under the Centre for Biotechnology Research and Development (CBRD), was established in 2020. The facility is equipped with the state-of-the-art Sequencing machines including the Illumina Miseq and Oxford nanopore GridION sequencing platforms. This facility is also equipped with the ability to generate and analyse genome sequences by offering bioinformatics and data management support.

### Services



#### Whole Genome Sequencing

- o Large and small Whole Genome Sequencing
- o De Novo Sequencing
- o Phased Sequencing



#### Amplicon Sequencing

Analyzing genomic variations in specific genomic regions



#### Bioinformatics and Data Analysis

The process of analysis of sequences generated to make meaningful data and information. Bioinformatics forms an integral part of high throughput sequencing workflow



#### Training and Capacity Building

Training and workshops in both wet lab and Bioinformatics to scientists, students and key stakeholders in Kenya, the region and beyond.

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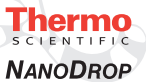


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# FULL PROGRAM

## DAY 1, WEDNESDAY, 15<sup>th</sup> FEBRUARY 2023

TIME	OFFICIAL OPENING SESSION & KEYNOTE ADDRESS	
0700-0900hrs	Arrival and Registration of Delegates	
	Kenya National and East Africa Anthem	
0900 – 0910hrs	<b>KASH Conference overview:</b> Chair of KASH Organizing Committee, <b>Dr. Cecilia Mbae</b>  <b>KNMF Conference overview:</b> Chair of KNMF Committee, <b>Prof. Isabella Oyier</b>	
0910 - 0945hrs	<b>Opening Remarks</b> Ag. Director General and CEO, KEMRI <b>Prof. Sam Kariuki</b>  Chairman, KEMRI Board of Directors- <b>Dr. Daniel Mbinda</b>  USAID Health Population and Nutrition Director - <b>Dr. John Kuehnle</b>  WHO Representative - <b>Dr. Abdourahmane Diallo</b>	
0945-0950hrs	<b>Opening Remarks and welcoming of the Chief Guest</b> Director General- Ministry of Health - <b>Dr. Patrick Amoth</b>	
0950hrs-1005hrs	<b>Address and Official opening by Chief Guest-</b> Cabinet Secretary- Ministry of Health - <b>Dr. Susan N. Wafula</b>	
1005 - 1035hrs	Opening Keynote Address: <b>Dr Mercy Mwangangi</b> <b>Topic: Spotighting the essential role of investing in research for Health Systems Strengthening</b>	
Master of Ceremony:	<b>Mr. John Musau</b>	
Session Chair	<b>Dr. Benjamin Tsofa &amp; Dr. Andrew Mulwa</b>	
Rapporteur	<b>Dr. Damaris Matoke-Muhia &amp; Dr. Katherine Kilonzo</b>	
<b>1035 – 1115hrs TEA BREAK</b>		
<b>1115-1245hrs SCIENTIFIC SESSION 1-6</b>		
Time (EAT) 1115hrs-1245hrs	Abstract No	<b>Scientific Session 1: TB-1</b> <b>VENUE: Amboseli</b> <b>Session Chair: Dr. Jane Ong'ang'o</b> <b>Rapporteur: Barbara Miheso</b>
	1.	Isolation of Non-Tuberculous Mycobacterial Infections among Tuberculosis presumptive cases at the National Tuberculosis Reference Laboratory Kenya, 2018 –2019; <b>George Kamau</b>
	2.	Distribution of Mtb genotypes/strains among presumptive multidrug resistant tuberculosis patients in western Kenya; <b>Albert Okumu</b>
	3.	Assessing impact of pre-analytical challenges experienced in samples received for TB diagnosis in an MDR surveillance in Western Kenya and North Rift; <b>Joseph Orure</b>
	4.	Assessment of TB cases tested using GeneXpert in Ndaragwa Sub county,2021; <b>Lucy Njoki</b>
	5.	Spectrum of Fungi Isolated from Sputum of Patients Attending Tuberculosis Reference Facilities in Kenya; <b>Abdi Mohamed</b>
	6.	Active Community Transmission for Drug-Resistant Tuberculosis: Are We Safe?; <b>James Maragia</b>
	7.	Sputum Smear Conversion rates in relation to HIV status after 6 months of Tuberculosis treatment in Nairobi Kenya; <b>Dorcias Ihuthia</b>



Time (EAT) 1115hrs-1245hrs	Abstract No	Scientific Session 2: Vector Biology-1 Venue: Tsavo Chair: Dr. Luna Kamau Rapporteur: Tiffany Wandera
	8.	Mosquitocidal Effect and Pharmacokinetics of Different Ivermectin Dose Regimens in Preparation for Bohemia Cluster Randomized Controlled Trial; <b>Yvonne Kamau</b>
	9.	UDP-Glucuronosyltransferase plays a key role in Insecticide Resistance: A study using bioinformatics approaches; <b>Cynthia Odhiambo</b>
	10.	Age grading of Afrotropical malaria vectors using MALDI TOF MS; <b>Mercy Tuwei</b>
	11.	Resting behaviour of African malaria mosquitoes in an era of high indoor insecticide use; <b>Kevin Owuor</b>
	12.	A field bioassay for assessing ivermectin bio-efficacy in malaria vectors; <b>Kelly Ominde</b>
	13.	Ivermectin mass drug administration for malaria control (BOHEMIA): updates on trial progress; <b>Marta Maia</b>
	14.	Upscaling integrated vector management in the control of malaria and schistosomiasis in Mwea, Kirinyaga County. Baseline Epidemiological and Entomological results; <b>Paul Gichuki</b>
	15.	Over-expression of CYP6M2, CYP6P3, CYP4H15 and a cuticular protein is associated with transfluthrin response in <i>Anopheles gambiae</i> ss from Bungoma, Western Kenya; <b>Stephen Okeyo</b>
	16.	Controlling malaria from within: Using microbial symbionts to decrease vector competence; <b>Thomas Onchuru</b>
Time (EAT) 1115hrs-1245hrs	Abstract No	Scientific Session 3: NTDs and One Health VENUE: Samburu Session Chair: Prof. Samson Muoo Rapporteur: Joan Jepkemei
	17.	Epidemiological profile of Leprosy cases and the Treatment Outcomes, Kenya January 2011-To December 2021; <b>Vallerian Karani</b>
	18.	Production and use of polyclonal antibodies for the diagnosis of human African trypanosomiasis; <b>Dawala Koromtili</b>
	19.	Exploring Service Provider Related Determinants of Surgery Non-acceptance Among Women with Trachoma Trichiasis in North Pokot Sub County; <b>Victoria Akoth</b>
	20.	Presence of an invasive exotic freshwater snail, <i>Pomacea canaliculata</i> (Gastropoda: Ampullaridae) in Mwea Irrigation Scheme, Kirinyaga County: Potential implications for public health and wetlands biodiversity; <b>Martin Mutuku</b>
	21.	Severe dengue in Mendera : a case for event based surveillance; <b>Albert Nyunja</b>
Time (EAT) 1115hrs-1245hrs	Abstract No	Scientific Session 4: Natural Products VENUE: Bogoria Session Chair: Dr. Beatrice Irungu Rapporteur: Dr. Sospeter Njeru
	22.	LC-MS/MS method for simultaneous determination of selected antidiabetic adulterants in formulated herbal remedies being sold in Nairobi and Uasin Gishu Counties, Kenya; <b>Caroline Maina</b>
	23.	Antimicrobial activities and phytochemical content of honey and pollen of <i>Meliponula beccarii</i> and <i>Plebeina hildebrandti</i> from Baringo County; <b>Chepkemoi Christine</b>
	24.	In silico evaluation and prediction of novel pyrazoline, pyrazole and isoxazoline derivatives of <i>Polygonum senegalense</i> chalcones as anti-cancer agents; <b>Evans Okemwa</b>
	25.	Evaluation of Effects of Spirulina Extracts on Immunologic Dysfunction and Inflammation Associated with Aflatoxin B1 Induced Toxicity in Mice; <b>Gilbert Kipkoech</b>
	26.	Antimycobacterial Activity of <i>Albizia zygia</i> (Dc.) J.F. Macrb Root Bark Extracts tested singly and in Combination, their Cytotoxicity, and Phytochemicals Profiles; <b>Kehongo Moses</b>
	27.	Phytochemical and anti-inflammation activity of <i>Fagaropsis angolensis</i> and <i>Fagaropsis hildebrandtii</i> using animal model; <b>Maloba Mukhunya</b>

	28.	Anti-inflammatory mechanisms of action of a herbal combination remedy for the management of COVID-19 and other inflammatory diseases including arthritis; <b>Peter Mwitari</b>
	29.	<i>In vivo</i> anti-inflammatory potential, synergy, gene expression profiles and safety of selected medicinal plants on rheumatoid arthritis; <b>Mercy Jepkorir</b>
	30.	Formulation, Characterization, and Efficacy Evaluation of <i>Moringa oleifera</i> Leaf Polyphenols-Loaded Phytosome Delivery System; <b>Jecinta Wanjiru</b>
	31.	Fusidic acid-based drug combination exhibit enhanced activity against Mycobacterium tuberculosis; <b>Charles Omollo</b>
<b>Time (EAT) 1115hrs-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 5: Public Health-1 VENUE: Mt. Kenya C Session Chair: Dr. Sam Aketch Rapporteur: Sharon Mukua</b>
	32.	Preliminary findings from a photovoice study of community members' choice, experiences and perceptions around fuel use and cooking practices in Mukuru (Kenya) and Ndirande (Malawi); <b>Fred Orina</b>
	33.	Individual and social level factors influencing repeated pregnancy among unmarried adolescent mothers in Katavi Region—Tanzania: A qualitative study; <b>Minyahil Tadesse</b>
	34.	Population, Climate Change, and Sustainable Development in Africa; <b>Ndirangu Ngunjiri</b>
	35.	Host transcriptional RNA signatures as predictive markers of outcome in children with severe lung infection; <b>Angela Maina</b>
	36.	Association of household food insecurity and malnutrition among caregivers of children attending mother child clinics in western Kenya; <b>Olieng'o Okoth</b>
	37.	Evaluation of community event-based surveillance (cebs) in siaya, kenya 2021; <b>Cynthia Musumba</b>
	38.	Assessing the transition of campaign delivery of vitamin a supplementation to routine delivery in Côte d'ivoire and Senegal; <b>Melissa Baker</b>
	39.	Assessment of health care waste management (hcwm) in context of environmental safeguards in universal health coverage, kisumu west sub county, Nyahera Sub-county hospital; <b>Duncan Odhiambo</b>
	40.	Health-seeking behavior for child illnesses in western Kenya: Qualitative findings from the Child Health and Mortality Prevention Surveillance (CHAMPS) Study; <b>Sarah Ngere</b>
	41.	Over-The-Counter Antimicrobial Sale in Kenya: A mystery client survey; <b>John Ndemi</b>
	42.	Respiratory Syncytial Virus and Vaccination in Kenya; What are the Healthcare Workers' Preference? <b>Victor Opere</b>
<b>Time (EAT) 1115hrs-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 6: MCH-1 VENUE: Mt. Kenya D Session Chair: Dr. Benson Singa Rapporteur: Schiller Mbuka</b>
	43.	Dental Visits and Perceived Benefits of Oral Health during Pregnancy Are Associated with Preterm Birth Outcome: Retrospective Analysis of US PRAMS data from 2009 to 2020; <b>Hyewon Lee</b>
	44.	Religious Factors Affecting Utilization of Maternal Health Services in Siaya County, Kenya: A Qualitative Study; <b>Evans Dzenis</b>
	45.	Knowledge level and associated factors about sexual and reproductive health rights among University of Gondar students, Gondar Ethiopia; <b>Keffie Yohannes</b>
	46.	Prevalence and factors associated with anaemia in pregnancy among women attending first antenatal care clinic between January 2021 and April 2022 at Doldol Subcounty Hospital, Laikipia County: A cross-sectional study; <b>David Kariuki</b>
	47.	Developing and Implementing A Vital Signs And Feeds And Fluids Monitoring Chart For Neonatal Hospital Care In LMIC: A Human-Centered Design; <b>Naomi Muinga</b>

	48.	Neonatal sepsis incidence at JM Kariuki Memorial County Referral Hospital, Nyandarua; <b>Michael Chege</b>
<b>1245-1345hrs: LUNCH BREAK</b>		
<b>1345-1430hrs POSTER SESSION (001-022)</b>		
<b>SCIENTIFIC SESSION 7, SYMPOSIUM 1-5</b>		
<b>Time (EAT) 1345-1430hrs</b>	<b>Abstract No</b>	<b>Scientific Session 7: Young Investigators VENUE: Amboseli Session Chairs: Dr. Joseph Mwangangi &amp; Dr. Doris Njomo Judges: Dr. Limbaso Konongoi &amp; Francis Kimani</b>
	49.	Epidemiological analysis and diversity of extended spectrum $\beta$ -lactamases from escherichia coli and klebsiella species fecal isolates in nairobi, Kenya; <b>Sophia Kuve</b>
	50.	Red Blood Cell Parameters and Associated Factors among Infants Attending Sangabuye and Makongoro Health Centres, Mwanza, Tanzania; <b>Rotgen Arnold</b>
	51.	Behaviors and Sexual Patterns leading to HIV risk among young transgender women in Coastal Kenya; a qualitative Study; <b>Melanie Awino</b>
	52.	Dengue fever outbreak at the Kenyan south coast involving serotype 3, genotypes III and V; <b>Eric Muthanje</b>
	53.	A comparative analysis of Portable Microbiological Lab (10ml colilert, 1ml pertrifilm) and the Colilert Quanti - tray 2000; <b>Nancy Chebichii</b>
	54.	Bacterial Etiologies of Diarrhea in Children Under 5 Years from Mukuru Informal Settlement and their Antimicrobial Sensitivity Profiles; <b>Susan Kiiru</b>
	55.	Characterization of Aeromonas species From Dhaka, Bangladesh through whole genome sequencing and phylogeny; <b>Rahma Golicha</b>
	56.	Vectorial capacity and TEP1 genotypes of Anopheles gambiae sensu lato mosquitoes on the Kenyan coast; <b>Brian Bartilol</b>
	57.	Genetic Diversity of Nontuberculous Mycobacteria among Symptomatic Tuberculosis Negative Patients from Kenya; <b>Zakayo Mwangi</b>
	58.	Entomological surveillance of main malaria vectors on the Kenyan coast using MALDI-TOF MS; <b>Jonathan Kazungu</b>
	59.	Therapeutic response to artemisinin combination therapies among individuals with Plasmodium falciparum single infection versus mixed Plasmodium species infections in Kisumu County, western Kenya; <b>Gladys Chemwor</b>
	60.	Examining the influence of actor interactions and power dynamics on health system responsiveness in Kilifi County, Kenya; <b>Nancy Kagwanja</b>
	61.	County governments' capacity of human resources for health in the implementation of Universal Health Coverage in Kenya; <b>Ismail Adow</b>
	62.	Patterns and determinants of antibiotic prescription among children admitted to 12 public hospitals in Kenya: A cross-sectional observational study; <b>Rachel Otuko</b>
	63.	Profiling Genome-wide Recombination in Epstein Barr Virus reveals Type-Specific Patterns and associations with Endemic-Burkitt Lymphoma; <b>Eddy Agwati</b>
	64.	Cytokine profile of a TB and TB/HIV co-infected cohort in Kenya; <b>Asiko Ongaya</b>
	65.	Entomological and epidemiological drivers of visceral and cutaneous leishmaniasis outbreak in Kajiado County, Kenya; <b>Barrack Omondi</b>
	66.	Association between five-minute apgar scores and adverse short-term outcomes in neonates in the clinical information network hospitals in kenya, 2018-2022; <b>Pauline Karing'u</b>
	67.	Advances in The Ambulatory Management of Pneumothorax: A systematic Review and Meta-Analysis; <b>Vincent Kipkorir</b>
	68.	The Effect of climate change on Biomphalaria pfeifferi populations in Asao stream, Western Kenya; <b>Noel Oduor</b>

Time (EAT) 1430-1700hrs		Symposium 1: Knowledge Management VENUE: Tsavo Session Chair: Prof Jennifer Orwa Rapporteurs: Dr. Benjamin Tsofa & Lillian Mayieka
Time (EAT) 1430-1700hrs		Syposium 2: PAMCA VENUE: Samburu Session Chair: Dr. Simon Muriu Rapporteur: Dr. Lydia Kibe & Dr. Damaris Matoke
Time (EAT) 1430-1700hrs		Symposium 3: Family Health Unit VENUE: Bogoria Session Chair: Dr. Richard Omore Rapporteur: Victor Akelo & Sheila Mbaabu
Time (EAT) 1430-1700hrs		Symposium 4: NUTM-KEMRI VENUE: Mt. Kenya C Chair: Prof. Satoshi Kaneko Rapporteur: Dr. Muuo Nzou & Ms. Susan Kawai
Time (EAT) 1430-1700hrs		Symposium 5: Frontiers in Tungiasis-Wellcome Trust VENUE: Mt. Kenya D Session Chair: Dr. Lynne Elson Rapporteur: Ulrike Fillinger & Dr. Sophie Uyoga

## DAY TWO, THURSDAY 16<sup>th</sup> FEBRUARY 2023

0700-0830hrs	Arrival & Registration	
	PLENARY SESSION	
0830- 0855hrs	Plenary Session 1: <b>Dr. Roberts Frank</b> - <i>University of Washington</i> Topic: Relevance of periodontal disease in the context of HIV infection	
0855- 0920hrs	Plenary Session 2: <b>Prof Wallace Bulimo</b> - <i>Kenya Medical Research Institute</i> Topic: The data revolution, how KEMRI is riding the fourth wave	
0920 -0945hrs	Plenary session 3: <b>Dr. Beth Tippet</b> - <i>Nyanja Health Research Institute in Malawi</i> Topic: Knowledge mobilization for increasing the impact of your research	
0945-1010hrs	Plenary Session 4: <b>Prof. Samson Muuo</b> - <i>Kenya Medical Research Institute</i> Topic: Genomics advancements in Vaccine and Diagnostic development in Kenya	
Session Chair:	<b>Prof. Charles Mbogo</b>	
Rapporteur:	<b>Susan Kawai</b>	
1010-1045hrs	TEA BREAK	
Time (EAT) 1045 – 1245hrs	Abstract No	Scientific Session 8: TB-2 Venue: Amboseli Chair: Dr. Hellen Meme Rapporteur: Barbara Miheso
	69.	Identification of Mycobacterium species causing pulmonary tuberculosis in sputum samples from three health facilities in Nairobi county, Kenya; <b>Jeremiah Ndeto</b>
	70.	Novel Approaches for Developing a Highly Sensitive Molecular Assay for the Diagnosis of Tuberculosis; <b>Clement Likhovole</b>
	71.	Implementing and Improving the Quality of Tuberculosis Diagnosis in Kenya in 2021; <b>Solomon Bundi</b>
	72.	Scaling up active case finding through integrating quality improvement in tb settings the case of suna west sub county; <b>Peter Omware</b>



	73.	Treatment outcomes among cases with Drug Resistant TB, Nairobi County TB Treatment Centers, 2016 – 2022; <b>Selina Marwa</b>
	74.	Characterization of first line drug resistance for mycobacterium tuberculosis complex by MTBDRplus™ for specimens received at the National Tuberculosis Reference Laboratory Kenya, 2021; <b>Beatrice Nasimiyu</b>
<b>Time (EAT) 1045 – 1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 9: COVID-19 Venue: Tsavo Session Chair: Dr. Samoel Khamadi Rapporteur: Janet Majanja</b>
	75.	Severe Covid-19 cases in the county hospitals in rural central Kenya, a case study of JM Kariuki hospital, Nyandarua county; <b>Angelica Kabue</b>
	76.	Application of isothermal amplification and detection methods for clinical diagnostics; <b>Bart Keijser</b>
	77.	Influenza and SARS-CoV-2 co-circulation in Kenya, Apr 2020 – Mar 2022; <b>Daniel Owusu</b>
	78.	Occupational correlates for Covid19 disease among Staff at Kenyatta National Hospital; <b>John Macharia</b>
	79.	Incidence of SARS-CoV-2 and Influenza Viruses among Pregnant and Postpartum Women and their Infants, Siaya County, Kenya 2020–2021; <b>Nancy Otieno</b>
	80.	Wastewater Surveillance of SARS-CoV-2 in Kisumu City, Kenya; <b>Eric Muthanje</b>
	81.	Xpert xpress SARSCOV -2 Testing in Kenya; <b>Mary Mbugua</b>
	82.	Determinants of COVID-19 vaccine uptake among eligible residents of two populations in Siaya and Nairobi County, Kenya, July 2021 to August 2022; <b>George Otieno</b>
	83.	Characteristics of COVID-19 vaccine defaulters in Busia County, 2021; <b>Jude Oduor</b>
	84.	Assessment of the Quality of Alcohol-Based Hand Sanitizers, Pre and Peri - COVID-19 Pandemic Outbreak in Kenya; <b>Samuel Wafula</b>
<b>Time (EAT) 1045 – 1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 10: Health Systems-1 VENUE: Samburu Session Chair: Bridget Kimani Rapporteur: Tabitha Kanyui</b>
	85.	Incorporating mhealth interventions into Kenya's health infrastructure to augment Universal Health Coverage, service delivery improvement approach; <b>Oduor Otieno</b>
	86.	Examining the Responsiveness of the National Health Insurance Fund (NHIF) to People Living with Hypertension and Diabetes in Kenya: A qualitative study; <b>Robinson Oyando</b>
	87.	Experiences of Pilot Rollout of Web Laboratory Information Management System Remote Sample Login in Western Kenya; <b>Ben Odhiambo</b>
	88.	The Experience of rolling out a Mobile Van for conducting Minimally Invasive Autopsy for Community Deaths as part of Child Health and Mortality Prevention Surveillance in Siaya, western Kenya; <b>Peter Onyango</b>
	89.	Relationship between caregivers engagement through a 2-way mHealth platform and depressive symptoms in Western Kenya; <b>Catherine Otieno</b>
	90.	The Impact of an Integrated Health System Approach in improving access to services for persons with Lymphoedema in Coastal Kenya; <b>Stella Kepha</b>
	91.	Strategies to Reduce Informal Payments at Public Health Facilities in Kenya: Patients and Health Workers Perspectives; <b>Evelyn Kagure</b>
<b>Time (EAT) 1045 – 1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 11: NCDs VENUE: Bogoria Session Chair: Dr. Lydia Kaduka Rapporteur: Sarah Karanja</b>
	92.	Metabolic syndrome and its associated factors among women using hormonal contraceptives in referral hospital, Nekemte, Ethiopia; <b>Endalo Asefa</b>
	93.	The Diagnostic Accuracy of Diabetes Retinopathy Screening by Ophthalmic Clinical Officers, Ophthalmic Nurses and County Ophthalmologists against a Retina Specialist in 2 Selected County Referral Hospitals, Kenya; <b>Jane Ong'ang'o</b>

	94.	Factors associated with oral healthcare utilization among pregnant women attending antenatal care clinics in Kiambu Level V hospital, Kiambu County, Kenya; <b>Salome Kinyita</b>
	95.	Adaptive immune receptor features related to breast cancer in Kenyan patients: High immunoglobulin gene expression and BC-resident gamma-delta T-cells; <b>Kennedy Mwangi</b>
	96.	Association between maternal periodontal disease and preterm birth among women in Kisumu County, Kenya; <b>Linus Ndegwa</b>
	97.	Complications among Hypertensive cases, Kitui County Referral Hospital, January 2019- March 2022; <b>Diana Rose</b>
	98.	Association between nutrition knowledge and practise and cardiovascular disease risk factors among community members in Vihiga County; <b>Doreen Mitaru</b>
<b>Time (EAT) 1045 – 1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 12: Vector Biology-2 VENUE: Mt. Kenya C Session Chair: Dr. Joel Lutomiah Rapporteur: Sheila Mbaabu</b>
	99.	Whole transcriptomic gene profile of Anopheles arabiensis resistant to pyrethroid and organophosphate from western Kenya reveals overexpression of salivary gland and cuticular proteins; <b>Diana Omoke</b>
	100.	Plausibility of skin bacteria as a source of attractive olfactory ecology for Anopheles mosquitoes; <b>David Mburu</b>
	101.	The effect of high and low larval growth temperature on microsporidia mb in Anopheles gambiae sl; <b>Otieno Fidel</b>
	102.	Vectors of malaria An. arabiensis and An. funestus sampled in Kisumu and Siaya, Kenya, show resistance to permethrin and other insecticides; <b>Richard Ochieng</b>
	103.	Environmental factors modulate symbiont-host dynamics: Microsporidia MB in Anopheles arabiensis, at the Ahero Irrigation Scheme, Kenya; <b>Joseph Gichuhi</b>
	104.	Community engagement to understand the challenges and opportunities for a Microsporidia MB-based vector control strategy; <b>Syeda Tullu</b>
	105.	Isolation of tick-borne viruses in ticks collected from domestic animals in selected Counties Kenya; <b>Hellen Koka</b>
	106.	Natural sugar feeding rates of Anopheles mosquitoes collected by different methods in western kenya; <b>Seline Omondi</b>
<b>Time (EAT) 1045 – 1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 13: Sexual Reproductive Health-1 VENUE: Mt. Kenya D Session Chair: Dr. Betty Njoroge Rapporteur: Schiller Mbuka</b>
	107.	Hybrid rdt for diagnosing gonorrhoea and syphilis; <b>Mathenge Julius</b>
	108.	Effective management of adolescent health through multisectoral approach; <b>Onchari Micah</b>
	109.	Syndromic Verses Laboratory diagnosis of Chlamydia trachomatis and Neisseria gonorrhoea among Adolescent girls and young women aged 15-20 years in South Western Kenya; <b>Samya Said</b>
	110.	Pre-exposure prophylaxis (PrEP) uptake & associated factors among adolescent girls and young women (15-20) participating in HPV vaccine trial; <b>Mildred Obare</b>
	111.	Repeat pregnancy, incidence & associated risk factors among adolescent girls and young women in Southwestern Kenya; <b>Erick Aol</b>
	112.	HIV incidence, trend and associated risk factors among a cohort of adolescents and young women (15-20 years) participating in HPV vaccine study in Kisumu; <b>George Otieno</b>
	113.	Prevalence of Chlamydia trachomatis and its associated factors among sexually active women in a high HIV-burden region, Western Kenya using Point-of-Care approach; <b>Martha Nyakambi</b>
<b>1245-1345HRS: LUNCH BREAK</b>		

## 1345-1430HRS POSTER SESSION (Abstract No. 023-045)

## AFTERNOON: SCIENTIFIC SESSION 14, &amp; SYMPOSIUM 6-10

Time (EAT) 1430-1700hrs	Abstract No	Scientific Session 14: Mental Health VENUE: Amboseli Session Chair: Dr. Lucy Chite Rapporteur: Dr. Linus Ndegwa
	114.	A multi-causal pathway to suicide, understanding suicide risk in coastal Kenya: A qualitative study; <b>Linnet Onger</b>
	115.	Visual arts as a tool to tackle mental health stigma: Findings from the Difu Simo Mental Health Awareness project in Kilifi County, Kenya; <b>Mary Bitta</b>
	116.	Design and Evaluation by Action Research of the BoB-programme (Build your Own Buddy) in South Sudan: Mental Health & Psychosocial Support for young children; <b>Remy Vink</b>
	117.	Association between maternal depression and child growth in Homa-bay and Migori counties, Kenya; <b>Julius Onyango</b>
	118.	Where are the perpetrators? A situational analysis of the Sexual and gender based violence cases among women at Kendu Sub County Hospital, Homa Bay County, Kenya; <b>Gabriel Kotewas</b>
	119.	Factors associated with substance abuse among mentally ill outpatients seen in a psychiatric hospital in Nairobi, Kenya: A retrospective study; <b>Jane Muriuki</b>

Time (EAT)  
1430-1700hrs

SYMPOSIUM 6: SERU  
VENUE: Tsavo

Session Chair: Enock Kebenei  
Rapporteur: Carolyne Kithinji & Susan Kavai

Time (EAT)  
1430-1700hrs

SYMPOSIUM 7: NAPREDA  
VENUE: Samburu

Chair: Dr. Festus Tolo  
Rapporteur: Dr. Peter Mwitari & Dr. Beatrice Irungu

Time (EAT)  
1430-1700hrs

SYMPOSIUM 8: IMPACT OF CLIMATE CHANGE  
VENUE: Bogoria

Chair: Prof. Inah Danquah  
Rapporteur: Dr. Eric Muok & Dr. Steve Wandiga

Time (EAT)  
1430-1700hrs

SYMPOSIUM 9: BOHEMIA  
VENUE: Mt. Kenya C

Chair: Dr. Marta Maia  
Rapporteur: Dr. Joseph Mwangangi

Time (EAT)  
1430-1700hrs

SYMPOSIUM 10: Drug Delivery using Nanotechnology  
VENUE: Mt. Kenya D

Session Chair: Prof. Bernhards Ogutu  
Rapporteur: Dr. Jeremiah Gathirwa & Kelvin Thiong'o

## DAY THREE FRIDAY 17<sup>th</sup> FEBRUARY 2023

0700-0830hrs		Arrival and Registration of Delegates
PARALLEL SCIENTIFIC SESSIONS 15-20		
Time (EAT) 0830-1000hrs	Abstract No	Scientific Session 15: AMR-1 VENUE: Amboseli Session Chair: Dr. John Mwaniki Rapporteur: Kelvin Kering
	120.	Antimicrobial Resistance Profiles of Bacteria Recovered from Patients seeking COVID-19 PCR Testing in Nairobi; <b>Japhet Katana</b>
	121.	Bacteriophages for the treatment and bio control of multidrug resistant <i>Acinetobacter baumannii</i> ; <b>Felix Mwai</b>
	122.	Low Microbiology Diagnostic Capacity in Kenya Public Hospitals: findings from a cross-sectional survey for 20 facilities; <b>Brian Nyamwaya</b>
	123.	First report of colistin resistance gene <i>mcr-10</i> in Kenya; <b>Collins Kigen</b>
	124.	Antibiotic Resistant <i>Vibrio cholerae</i> O1 and its SXT elements associated with cholera outbreaks in Kenya between 2007 and 2016; <b>Mohammad Shah</b>
	125.	Mutations in <i>MtrR</i> and 23S rRNA genes associated with macrolide resistance in <i>Neisseria gonorrhoeae</i> , <i>Chlamydia trachomatis</i> , and <i>Mycoplasma genitalium</i> among symptomatic women in Busia County, Kenya; <b>Primrose Ndungu</b>
Time (EAT) 0830-1000hrs	Abstract No	Scientific Session 16: Health Systems-2 VENUE: Tsavo Session Chair: Dr. Richard Mutisya Rapporteur: Ishmael Ahamed
	126.	Plan Do Study Act (PDSA) cycle approach to increase yield from contact management the case of Suna West; <b>Peter Omware</b>
	127.	Assessing the reception and application of COVID-19 community health messaging in two large diverse urban settlements in Nairobi: a case of Kibra and Nyayo estate Embakasi; <b>James Wodera</b>
	128.	Prevalence of hiv drug resistance mutations in hiv patients receiving antiretroviral therapy in Western and Coastal regions in Kenya; <b>Juster Mungiria</b>
	129.	Influence of Strategic Leadership Style on Partnerships Implementation in a Medical Research Organisation in Kenya: A Case Study; <b>George Kirigi</b>
	130.	Are stories-of-significant change technique useful as a source of capturing experiential evidence for informing policy and practice? Lessons learnt from Kenya; <b>James Kariuki</b>
Time (EAT) 0830-1000hrs	Abstract No	Scientific Session 17: Genomics VENUE: Samburu Session Chair: Dr. Luna Kamau Rapporteur: Tiffany Wandera
	131.	Comprehensive profiling of antibodies against infectious diseases using the protein microarrays; <b>Elijah Gicheru</b>
	132.	Whole genome sequencing-based surveillance of rotaviruses in Kenya reveals interspecies transmission, evolution and reassortment events; <b>Ernest Wandera</b>
	133.	Proteomics an agnostic approach to detect emerging viruses; <b>Armand Paauw</b>
	134.	Characterization of URST7 as a novel prognostic biomarker and therapeutic target for breast cancer; <b>Regina Wachuka</b>
	135.	Genomic Analysis of Dengue virus 1 Associated with an Epidemic in Eritrea, 2011; <b>Victor Ofula</b>
	136.	The use of unbiased whole genome sequencing for pathogen discovery: A case of Rift Valley Fever in Marigat, Baringo County, Kenya; <b>Allan Lemtudo</b>
	137.	Genetic diversity and antigenic variation at vaccine target sites in Rabies Virus collected from different host species in Makueni and Siaya counties, Kenya; <b>Evalyne Wambugu</b>

	138.	Development of Thermostable Moloney Murine Leukemia Virus Reverse Transcriptase (MMLV-RT) Enzyme Prototype in Kenya, Utilizing Codon Optimization Strategy; <b>Abdiaziz Gosar</b>
<b>Time (EAT) 0830-1000hrs</b>	<b>Abstract No</b>	<b>Scientific Session 18: Public Health-2 VENUE: Bogoria Session Chair: Dr. Sam Aketch Rapporteur: Asiko Ong'aya</b>
	139.	Community members knowledge and perceptions of lung diseases in an urban informal settlement in Nairobi, Kenya; <b>Cynthia Kairu</b>
	140.	A mixed-methods study on residents' treatment-seeking behaviour of tungiasis in Homa Bay County, Kenya; <b>Kana Suzuki</b>
	141.	Exploring Gender Based Violence service provision for Adolescent Girls and Young Women during the COVID-19 pandemic in Kisumu County: A qualitative study among service providers; <b>Isdorah Odero</b>
	142.	Evaluation of Diabetes and Hypertension Surveillance through the Community Empower Health System in Makueni County, Kenya, 2021; <b>Dominic Ongaki</b>
	143.	Using community assets to improve access to cardiovascular disease prevention services: Case study of Health Kiosks in Markets; <b>Bosire Miriam</b>
	144.	Burden and Perception of Overweight and Obesity as a Risk Factor to Cardiovascular Diseases in Vihiga County, Kenya; <b>Melvine Obuya</b>
	145.	My neighbor my buddy: A strategy to reaching the hard-to-reach defaulters in the HIV Stigma burdened Ntitaru area of Kuria Community in Kenya; <b>Nancy Mwita</b>
	146.	Integrated Approaches to empower adolescent girls and young women in Muhuru Ward, Migori County; <b>Seth Midenyo</b>
	147.	Lessons from a Ghanaian model of care that addresses antenatal care holistically, focusing on quality, health promotion, and patients' needs; <b>Jedidia Ayoka</b>
	148.	The effect of Corn Soy Blend plus Vegetable Oil Enhanced with Fish Oil on Immunological Patterns and Clinical Outcomes Among Children Aged 9 to 24 months with Moderate Acute Malnutrition (MAM): A Randomized Clinical Trial; <b>Phelgona Otieno</b>
	149.	Diversity and distribution of fungi in urban and peri-urban residences in Kenya; <b>Olga Mashedi</b>
<b>Time (EAT) 0830-1000hrs</b>	<b>Abstract No</b>	<b>Scientific Session 19: Sexual Reproductive Health-2 VENUE: Mt. Kenya C Session Chair: Dr. Betty Njoroge Rapporteur: Irene Thuo</b>
	150.	Prevalence, Progression, and Risk Factors for Abnormal Pap Smear In adolescents and young girls aged 15-20 years in Kenya; <b>Lizzie Kabete</b>
	151.	Prevalence, persistence, clearance and associated risk factors of Bacterial Vaginosis in adolescents and young girls aged 15-20 years in South Western Kenya; <b>Caren Awinja</b>
	152.	Partner Notification Practice among Kenyan Adolescent Girls and Young women aged 15-20 years diagnosed with sexually transmitted infections; <b>Teresia Otieno</b>
	153.	Contraceptive uptake, method switching and associated factors among adolescent girls and young women participating in HPV vaccine trial; <b>Imeldah Wakhungu</b>
	154.	Incident and recurrent sexually transmitted infections in adolescents and young women in southwestern Kenya; <b>Maricianah Onono</b>
	155.	Adverse pregnancy outcomes and associated risk factors among adolescents and young women aged 15-20 years in Kenya; <b>Charlene Jepkoech</b>
<b>Time (EAT) 0830-1000hrs</b>	<b>Abstract No</b>	<b>Scientific Session 20: HIV VENUE: Mt. Kenya D Session Chair: Dr. Samoel Khamadi Rapporteur: Hellen Koka</b>
	156.	Factors associated with severe psychological stress among adults living with HIV in western Kenya; <b>Judy Mwai</b>
	157.	Assessing user preferences for design characteristics of oral dissolvable strips for pediatric HIV medication: a qualitative study; <b>Catherine Wexler</b>

	158.	Assessing challenges to pediatric ART provision: a qualitative study; <b>Michala Sliefert</b>
	159.	Factors associated with ART retention among adults (>15yrs) living with HIV enrolled in JM Kariuki Hospital, Nyandarua County, 2017-2021; <b>Margaret Wanjiku</b>
	160.	Utility of hair samples in monitoring antiretroviral therapy adherence of persons living with HIV in Kenya; <b>Philomena Chepkirui</b>
	161.	We tested together”: Experiences of PLHIV Delivering HIVST to Partners of Unknown HIV Status in Kenya; <b>Catherine Kiptinness</b>
<b>1000-1045HRS: TEA BREAK</b>		
<b>1045-1245hrs</b>	<b>PARALLEL SCIENTIFIC SESSIONS 21- 24</b>	
<b>Time (EAT) 1045-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 21: Health Systems 3 VENUE: Amboseli Session Chair: Dr Richard Mutisya Rapporteur: Ishmael Ahamed</b>
	162.	Quality assessment of clinical practice guidelines in Kenya using the Appraisal of Guidelines for Research and Evaluation (AGREE) II tool. A Methodological Review; <b>Sagam Caleb</b>
	163.	Evaluating the effectiveness of the National Health Insurance Fund in providing financial risk protection to households with hypertension and diabetes patients in Kenya; <b>Robinson Oyando</b>
	164.	Examination of sub-national capacities for health workforce governance in Kenya: A qualitative case study of two county governments; <b>Joshua Munywoki</b>
	165.	Seasonal Influenza Vaccination in Kenya: What Determines Healthcare Workers’ Willingness to Accept and Recommend Vaccination?; <b>Nancy Otieno</b>
	166.	Evaluation of Cholera Surveillance System in Kenya between 2019-2021; <b>Oscar Adidi</b>
	167.	Community Engagement and Co-Development in Designing Non-Communicable Disease Interventions: Case study of HEKIMA; <b>Mbuka Schiller</b>
	168.	Targeting the 'missing middle,' Do free healthcare policies improve health insurance coverage among informal sector workers? A case of the Afya Care pilot program in Kenya; <b>Phidelis Wamalwa</b>
<b>Time (EAT) 1045-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 22: MCH-2 VENUE: Tsavo Session Chair: Dr. Benson Singa Rapporteur: Lillian Mayieka</b>
	169.	Caring for providers to improve patient experience: mentorship needs of maternal healthcare providers in Migori County, Kenya; <b>Joyceline Gaceri</b>
	170.	Characterizing Aspiration Pneumonia among Under Five deaths enrolled in the Child Health and Mortality Prevention Surveillance (CHAMPS) Network in Western Kenya; <b>Joyce Akinyi</b>
	171.	Non-Communicable Diseases research: Trends and priorities in KEMRI’s past 5 years; <b>Timothy Kipkosgei</b>
	172.	The difficult situation in maternity care: triggers and strategies from provider perspective in Migori County, Kenya; <b>Edwina Ndhine</b>
	173.	Quantitative culture of the probiotic microorganisms contained in the supplements administered to infants in the PROSYNK (PRObiotics and SYNbiotics in infants in KENYA) study; <b>Micah June</b>
	174.	Group care for antenatal care services: Experiences of women in rural Ghana; <b>Jedidia Ayoka</b>
<b>Time (EAT) 1045-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 23: Malaria VENUE: Samburu Session Chair: Francis Kimani Rapporteur: Rukia Haji</b>
	175.	Four years of antimalarial Resistance Marker Surveillance using School Surveys in Kenya; <b>Victor Osofi</b>
	176.	Variability of Plasmodium falciparum asexual and sexual parasite carriage amongst individuals with symptomatic and asymptomatic infections in Kombewa, Kisumu county Kenya; <b>Gladys Chemwor</b>
	177.	Influence of landscape heterogeneity on entomological and parasitological indices of malaria in Kisumu, Western Kenya; <b>Wilfred Ouma</b>

	178.	Impact of Malaria Rapid Diagnostic Tests on Patient-Important Outcomes in sub-Saharan Africa: A systematic Review of Study Methods; <b>Jenifer Otieno</b>
	179.	Low frequency of Plasmodium falciparum hrp 2/3 deletions from symptomatic infections at a primary healthcare facility in Kilifi, Kenya; <b>Dorcas Okanda</b>
	180.	Antimalarial Susceptibility of Plasmodium falciparum field isolates from Busia county in Kenya; <b>Farid Abdi</b>
	181.	Identification of malaria hotspots in a highland site in western Kenya; <b>Benyl Ondeto</b>
	182.	Limited genetic variations of the Rh5-CyRPA-Ripr invasion complex in Plasmodium falciparum parasite population in selected malaria-endemic regions, Kenya; <b>Harrison Waweru</b>
<b>Time (EAT) 1045-1245hrs</b>	<b>Abstract No</b>	<b>Scientific Session 24: AMR-2 VENUE: Bogoria Session Chair: Dr. John Mwaniki Rapporteur: Kelvin Kering</b>
	183.	Most common resistant phenotypes, genotypes and prevalence of multidrug resistant (MDR) Salmonella Typhi in acute disease and chronic carriage in endemic setting in Nairobi County, Kenya; <b>Susan Kavai</b>
	184.	Genomic characterization of two community-acquired methicillin-resistant staphylococcus aureus with novel sequence types in Kenya; <b>John Njenga</b>
	185.	Extended spectrum beta lactamase producing Gram negative bacteria colonizing neonates admitted in the neonatology units at Bugando Medical Centre, Mwanza, Tanzania; <b>Jacobo Machimu</b>
	186.	Typhoidal Salmonella disease, carriage, diversity and antimicrobial resistant genes in Mukuru informal settlement, Nairobi Kenya; <b>Purity Nakhayo</b>
	187.	Multidrug resistant bacterial infections in severely ill COVID-19 patients admitted in a national referral and teaching hospital, Kenya; <b>Jeniffer Mutua</b>
	188.	Comparative Evaluation of The Automated Vitek 2 And Microbroth Dilution Methods On Colistin Antibiotic Susceptibility Test Results; <b>Michelle Atieno</b>
	189.	Gastrointestinal Carriage of Vancomycin-Resistant Enterococci and Carbapenem-Resistant Gram-Negative Bacteria among Inpatients and Outpatients at Kiambu County Referral Hospital, Kenya; <b>Anthony Maina</b>

## 1300-1400HRS: LUNCH BREAK

## CLOSING CEREMONY

	Master of Ceremony: <b>Dr. Sophie Uyoga</b>
<b>1400-1600hrs</b>	Conference outcomes & resolutions Chief Rapporteur: <b>Dr. Steve Wandiga</b>
	Awarding Ceremony: <b>Dr. Vera Manduku</b>
	Sponsors and Exhibitors: <b>Prof. Charles Mbogo</b>
	<b>Official Closing remarks KASH Chair: Dr. Cecilia Mbae Ag. Director General &amp; CEO, KEMRI Chair KEMRI Board of Directors</b>
	Vote of thanks- <b>Dr. Damaris Matoke-Muhia</b>



# POSTERS

SUB THEME	Abstract No	Poster Title
Antimicrobial Resistance	1.	Point prevalence survey to assess antibiotic prescribing pattern among hospitalized patients in a county referral hospital in Kenya; <b>Racheal Wanjiku</b>
Antimicrobial Resistance	2.	Antimicrobial Resistance in ESKAPE Pathogens from Inpatients at Nairobi West Hospital, June-December 2021; <b>Mercy Cheptoo</b>
COVID-19	3.	COVID-19 symptoms prevalence and associated outcomes in COVID-19 patients admitted at two major isolation centers in Kisumu County, Western Kenya; <b>Josephine Awino</b>
COVID-19	4.	Multidisease testing of covid-19 and tb in Kenya; <b>Solomon Bundi</b>
Genomics	5.	Analysis of the metagenomic virome of Aedes aegypti mosquitoes from Coastal Kenya; <b>Solomon Langat</b>
Genomics	6.	Dengue serotype dynamics at the Kenyan Coast, 2019-2022; <b>Josphat Nyataya</b>
Genomics	7.	An integrated analysis of host transcriptome and metagenome to elucidate etiology of acute non-traumatic coma of unknown cause in Kilifi, Kenya; <b>Brenda Karumbo</b>
Health Systems	8.	Population Health Needs, Health Systems Readiness, and Client Satisfaction in the Context of Implementation of Universal Health Coverage in Bomet County, Kenya; <b>Priscah Otambo</b>
Health Systems	9.	Implementation of the caring for providers to improve patients experience (cpipe) intervention in Kenya: challenges, success and lessons; <b>Beryl Akinyi</b>
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