

# CURRICULUM VITAE

# **Geoffrey Amuka Omuse**

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# **EDUCATION**

INSTITUTION	QUALIFICATION	START	COMPLETION	DEGREE
		DATE		AWARDED
Stellenbosch	PhD	2017	2020	PhD in Chemical
University, Cape Town,				Pathology
South Africa				
College of Pathologists	Fellowship	2016		Fellow of the
East, Central and				College of
Southern Africa				Pathologists East,
(COPECSA)				Central and Southern
				Africa
				(FCPathECSA)
Aga Khan University,	Master of Medicine	2008	2011	M Med Clin Path
Medical College of	in Clinical Pathology			
East Africa, Kenya				
University of Nairobi,	Bachelor of Medicine	2000	2005	MBChB
Kenya	and Bachelor of			
	Surgery			
Strathmore University,	Higher Diploma	January,	June, 2000	Higher Diploma in
Nairobi, Kenya		2000		the management of
(Formerly Strathmore				information systems
College)				
Strathmore University,	Diploma	January,	December, 1999	Diploma in the
Nairobi, Kenya		1999		management of
(Formerly Strathmore				information systems
College)				
Starehe Boys Centre	Kenya Certificate of	1995	1998	
	Secondary Education			

# SCHOLARLY INTEREST TRAINING

- 1. Aga Khan University, Network of Quality, Teaching and Learning; Completed a 6 hour online course on *Developing Your Teaching Dossier, Including for Promotion*; Completed in November 2023
- 2. University of Washington, Seattle, USA; Completed a 10-week course on *Economic Evaluation*; Completed in September 2023
- 3. University of Washington, Seattle, USA; Completed a 10-week course on *Project Management in Global Health*; Completed in September 2022
- 4. Aga Khan University, Nairobi, Kenya; Completed a 6-month online course on *Developing Health Leaders of Tomorrow*; Completed in July 2021
- 5. University of Washington, Seattle, USA; Completed the *Leadership and Management in Health* online course; Completed on 13<sup>th</sup> December 2020
- 6. Graduate School of Media and Communication, Aga Khan University, Nairobi; Completed the *Effective Leadership Communication* programme; December 2018
- 7. Graduate School of Media and Communication, Aga Khan University, Nairobi; Completed the *Communicating vision and strategy* programme; December 2018
- 8. Graduate School of Media and Communication, Aga Khan University, Nairobi; Completed *The Leader as a Coach* programme; November 2018
- 9. Graduate School of Media and Communication, Aga Khan University, Nairobi; Completed *The Communicating for Influence* programme; October 2018
- 10. Strathmore Business School and The Academy of Business in Society, Nottingham Trent University; Completed the *Values-Driven Leadership in Action programme*; August 2018;
- 11. Division of Microbiology, Stellenbosch University; 3 month training grant for molecular skills transfer; 1<sup>st</sup> September 30<sup>th</sup> November 2013
- 12. Stanford University; Completed and achieved a distinction in an online course on *Statistics in Medicine*; August 2013
- 13. Department of Health and Human Services, University of Washington; Completed an online course on *Advanced Epidemiology and Biostatistics*; December 2012
- 14. Department of Health and Human Services, University of Washington; Completed an online course on *Epidemiology and Biostatistics*; July 2011
- 15. The Department of Biological and Biomedical Sciences, Aga Khan University Hospital Karachi, Pakistan; Online course on *Molecular Mechanisms of Disease*; November 2008

# **POSITIONS HELD**

- Associate Professor and Consultant Clinical Pathologist; Aga Khan University Hospital Nairobi;
   Since January 2021 (Current position)
- Interim Laboratory Director; Aga Khan University Hospital Nairobi; May to September 2021
- Assistant Professor and Consultant Clinical pathologist; Aga Khan University Hospital Nairobi; July 2016 to December 2020
- Senior Instructor and Consultant Clinical pathologist; Aga Khan University Hospital Nairobi; April

2014 to June 2016

- Instructor and Consultant Clinical pathologist; Aga Khan University Hospital Nairobi; January 2012 to March 2014
- Resident in Clinical pathology; Aga Khan University Hospital Nairobi; 2008 2011
- Medical officer; Ministry of Health, Thika District Hospital; 2007-2008
- Medical officer intern; Ministry of Health, Thika District Hospital; 2006
- Applications specialist; Virtual City, Nairobi; 2000

## **DISTINCTIONS** (For service)

Consistently rated as outstanding for leading the departments quality agenda and ensuring maintenance of accreditation status by College of American Pathologists, South African National Accreditation Service and Joint Commission International.

# **DISTINCTIONS** (For Teaching and Training)

Consistently rated as outstanding in academia for dedicated supervision of Master's dissertations across various departments at Aga Khan University.

#### TEACHING EXPERIENCE

January 2021 (Current position): Associate Professor in the Department of Pathology

Responsible for facilitating lectures in laboratory medicine and clinical chemistry as part of the Master of Medicine in Clinical Pathology programme. I am part of the faculty that facilitates a research methodology course for post-graduate students at Aga Khan University Hospital, Nairobi. I am a facilitator for the dissertation supervision short course that is designed to build capacity for faculty to effectively mentor and guide residents to develop, undertake and complete their dissertations successfully.

# July 2016 – December 2020: Assistant Professor in the Department of Pathology

Responsible for facilitating lectures in laboratory medicine and clinical chemistry as part of the Master of Medicine in Clinical Pathology programme, mentoring students, supervising dissertations, facilitating tutorials, setting and administering examinations, chairing research sessions during the faculty academic rounds and presenting state of the art lectures. Member of the faculty that facilitates a research methodology course for post-graduate students at Aga Khan University Hospital, Nairobi.

# April 2014 - June 2016: Senior instructor in the Department of Pathology

Responsible for coordinating and facilitating lectures in laboratory and clinical chemistry for the Masters of Medicine in Clinical Pathology program, assisting residents in writing of dissertation proposals, mentoring of residents, setting of continuous assessment tests and exams.

## January 2012-March 2014: Instructor in the Department of Pathology

Responsibilities included facilitating lectures and training seminars for residents in the Master of Medicine in Clinical Pathology program and offering continuous medical education talks to technologists.

### TEACHING ACTIVITY

Actively involved in teaching, supervising and mentoring post-graduate students in the Department of Pathology. Specifically, I am responsible for the clinical chemistry component of the Master of Medicine in Clinical Pathology degree. A member of the faculty that facilitates a research methodology course for post-graduate students at Aga Khan University Hospital, Nairobi.

#### INNOVATIONS IN EDUCATION

a. Summary of student evaluations, awards received for teaching

Over the 10 years of being faculty in the Department of Pathology, student evaluations have been excellent.

## b. Innovation

Facilitator for the Towards Leadership programme offered by the Africa Research Excellence Fund (AREF). This programme trains emerging and promising young scientists from Africa. I am an AREF fellow and beneficiary of the same programme hence it is my privilege to be a facilitator and inspire others to aspire for research excellence.

- c. Teaching related activities (undergraduate and graduate) committee, lecturing, curriculum design etc.
  - ➤ 2018: Participated in the review of the Master of Medicine in Clinical Pathology curriculum
  - ➤ 2016: Member of the team that developed the Aga Khan University East Africa research strategy 2018-2021
  - ➤ 2015-2019: Member of the Aga Khan University scientific committee which reviews all resident dissertation proposals from the Medical College of East Africa School of Medicine
  - ➤ 2015: Participated in curriculum development for the College of Pathologists of East and Central Africa (COPECSA) Clinical Pathology fellowship as a member of the COPECSA education committee
  - ➤ 2014: Completed an internal self-assessment of the Pathology Department's Master's programmes in both Anatomic Pathology and Clinical Pathology as a member of the Pathology department self-assessment committee.
- d. New courses developed and / or offered.

2021: Organized laboratory management sessions with industry players for the residents in pathology.

# SERVICE AND ACTIVITIES WITHIN / OUTSIDE OF THE AGA KHAN UNIVERSITY

a. Innovations in service / processes / procedures;

**2022:** As the Chair of the Departmental Quality Improvement and Patient Safety committee, I oversaw our successful ISO 15189 surveillance audit conducted virtually by the South African National Accreditation System (SANAS) as well as re-accreditation audit conducted by the College of

American Pathologists (CAP).

Through a research grant, I was able to organize a 1-week hands on training for the laboratory technologists and scientists on sequencing using Nanopore © as well as procure a minion sequencer, a computer server and other related molecular equipment to enable the AKUHN laboratory perform sequencing and bioinformatics analysis as part of expanding our test offerings for both service and research.

**2021:** As the Chair of the Departmental Quality Improvement and Patient Safety committee, I oversaw our successful ISO 15189 re-accreditation audit conducted virtually by the South African National Accreditation System (SANAS).

**2020:** Oversaw the transitioning of the chemistry section in the main laboratory into a fully automated section that will increase efficiency, reduce turn-around times for routine tests as well as reduce operational costs by 20%. This is the first laboratory in East and Central Africa to have both front-end and back-end automation.

2019 – 2021: Project consultant for the Fleming Fund Kenya grant on "Strengthening of antimicrobial resistance (AMR) surveillance and response in Kenya". I was responsible for overseeing the implementation of this grant in Thika and Machakos level 5 hospitals under the leadership of Prof Gunturu Revathi who was the AKU site lead. The role of AKU was primarily focused on capacity building in diagnostic microbiology for the laboratory technologists working in the respective laboratories. Of all the consortium partners, AKU was the only partner to complete all assigned activities within the timelines given and within budget.

**2013 - 2019:** Through effective leadership and supervision, I have helped grow the chemistry test volumes in the AKUHN main laboratory from 612,042 in 2013 to 822,826 in 2019 despite the ever-increasing competition from local and international laboratories that have set up around the hospital. Maintaining growth in such a competitive environment requires innovation in terms of growing test menus as well as creating efficiencies.

#### b. New services introduced:

**2022:** Automated anti-nuclear antibody testing by introducing a digital imaging platform and automated sample processor from Euroimmun that has improved the quality of reports and shortened turnaround time of results

**2018:** Faculty lead for quality including enabling the laboratory at the main hospital become the first hospital based laboratory in East and Central Africa to be accredited by the College of American Pathologists (CAP).

**2014:** Set up an Allergy and Autoimmune testing service in the department that has contributed to significant growth in revenue to the hospital while increasing the diversity of in-house tests available for clinicians.

- c. Feedback from constituents
  - 2023: Received a letter of commendation from the Chief Executive Officer at AKUHN for excellent service to a patient who wrote to the hospital expressing their gratitude for the assistance that I offered.
- d. Service on committees within and external to the University (indicate role on committee).

#### **Committees External to AKU**

- ➤ 2023- External examiner for Master of Medicine in Human Pathology, University of Nairobi
- > 2022-To date- Editorial member of the Africa Journal of Laboratory Medicine
- ➤ 2021-To date: Member of the Research for Health committee in the Ministry of Health
- ➤ 2021-2022: Appointed by the Director General of Health, Ministry of Health, Kenya to Chair a joint taskforce to investigate allegations on poor qualityCOVID-19 testing data generated by COVID-19 testing laboratories in Kenya.
- ➤ 2021-To date: Appointed Ex-officio member of the Kenya Association of Clinical Pathologists executive committee
- 2020-To date: Appointed member of the East African Medical Journal scientific review committee
- ➤ 2020-To date: Appointed Associate Editor BMC Endocrine Disorders
- 2019: Re-elected Chair, Kenya Association of Clinical Pathologists (KACP). I have been able to raise the profile of the association which is now recognized as a major stake holder in the laboratory diagnostic space in Kenya. This is evidenced by invitations to make presentations to the senate and parliamentary health committees on various issues including COVID-19 preparedness and amendment of the Health bill. I have also been invited in my capacity as Chair to give input on National Hospital Insurance Fund compensation models for laboratory tests in Kenya. Through my leadership, the association has been actively involved in coming up with guidelines on laboratory investigation of COVID-19 patients as well as handling of deaths due to suspected or confirmed COVID-19. I also organized a cancer screening camp in Muranga county where we screened women for cervical and breast cancer and men for prostate cancer. Through my efforts, KACP has launched a young investigator award 2020 worth €10,000/= in partnership with Institut Měrieux. This is to encourage your doctors and scientists in Kenya to engage in research focused on antimicrobial resistance which is a public health issue worldwide.
- ➤ 2018: Appointed Secretary of the Association of Pathologists East Central and Southern Africa (APECSA). We are in the process of organizing the APECSA 2020 conference which is the

flagship conference that brings stakeholders in the laboratory diagnostic space from East, Central and Southern Africa together to discuss the science around pathology and laboratory medicine.

- ➤ 2017: Appointed as a member of the East African Journal of Pathology editorial board
- ➤ 2017-2019: Chair, Kenya Association of Clinical Pathologists (KACP). During my first term as Chair, I was able to revive the association and make it more vibrant and relevant. Specifically, I helped organize several continuous medical education sessions for members, revived the East African Journal of Pathology, organized a successful scientific conference and cancer screening camp in Machakos County.
- ➤ 2017-To date: Country representative for the International Federation of Clinical Chemists Task Force for Young Scientists
- 2016: Chair of the scientific committee for the Kenya Association of Clinical Pathologists (KACP). Responsible for organizing and coordinating the scientific programme as well as review of abstracts.
- ➤ 2015: Member of the scientific committee for the Kenya Association of Clinical Pathologists (KACP) Conference held in Mombasa on the 24-26 October 2015. Participated in review abstracts and coming up with the conference scientific programme.
- 2015: Member of the College of Pathologists East and Central Africa (COPECSA) education committee. Participated in curriculum development for the COPECSA Fellowship in Clinical Pathology.
- ➤ 2013: Participated in the development of national guidelines for the prevention and control of Brucellosis and Anthrax in conjunction with the Zoonotic Disease unit.
- ➤ 2007-2008: Chairman of the Kenya Medical Association (KMA), Thika Division. I was able to revive what had been a dormant association by bringing on board young doctors to actively engage in activities such as attending continuous medical education talks. I was also able to get members to contribute money and food for a children's home in Ruiru.
- 2005-2006: Member of the Social Welfare and Responsibility committee of KMA. I joined this committee as a final year medical student and continued to represent interns during internship. The committee was tasked with the responsibility of addressing issues of concern to doctors. I was able to lobby for the re-instatement of non-practice allowance for medical officer interns.

# **University-Wide Committees**

- ➤ 2022 To date: Member, Faculty Promotions and Appointments committee
- ➤ 2022 To date: Member, Endowed Chairs and Professors committee
- ➤ 2021 To date: Vice-Chair, Faculty of Health Sciences scientific research committee

- ➤ 2016: Member of the team that developed the Aga Khan University East Africa research strategy 2018-2021
- ➤ 2015-2019: Appointed a member of the Aga Khan University scientific committee which reviews all resident dissertation proposals from the Medical College of East Africa School of Medicine.

#### DEPARTMENT COMMITTEES

- ➤ 2018-To date: Chair of the Departmental Quality Improvement and Patient Safety committee. The key functions of the committee include:
  - Developing comprehensive annual departmental quality and patient safety plans and oversee their implementation and evaluation.
  - Measure, evaluate and improve all key departmental processes and activities (identifying appropriate key performance indicators).
  - Regularly review quality and patient safety measurement data from all units in the department against set targets and benchmarks.
  - o Collect, collate and evaluate departmental quality improvement and patient safety data
  - o Identify variations in outcomes for departmental Key Performance Indicators through review of the Department, and where applicable section, Quality Variance Report
  - Evaluate implementation and impact of previously recommended action plans in improving quality and patient safety.
  - Evaluate internal and external audit reports and oversee closure of identified gaps with requisite documentation.
  - Review root cause analysis action plan implementation status and recommend appropriate actions.
  - Ensure that the department maintains all accreditations and certifications
- ➤ 2016-To date: Member of the Departmental Research Committee that reviews and approves all resident proposals prior to submission to the human research and ethics committee.
- ➤ 2015-2016: Member of the Organizing committee for the Annual Aga Khan University Infectious Disease symposium. My specific role was to organize and coordinate logistics such as provision of meals, security and certificates.
- ➤ 2008-To date: Member of the Pathology Department Advisory Committee, Department Residents Training Committee, Academic and Research Committee.

### **PUBLICATIONS**

(Based on Bachelors, Masters or PhD Research)

- a. Peer reviewed research papers;
  - 1. A. Abdillah, N. Okinda, G. Omuse and R. Malkit. Reference intervals for prothrombin time and activated partial thromboplastin time derived from black African blood donors at a university teaching hospital in Nairobi, Kenya. East African Medical Journal Vol. 100 No. 9 September 2023
  - 2. *Silke O*, Yim IS, Shaikh K, Lalani S, Ghani F, Wanyonyi S, et al. Is HbA1 associated with birth weight? A multivariable analysis of Pakistani pregnant women. J ObstetGynaecol Res. 2023

- 3. *Gicheru B*, Shah J, Wachira B, **Omuse G**, Maina D. The diagnostic accuracy of an initial point-of-care lactate at the emergency department as a predictor of in-hospital mortality among adult patients with sepsis and septic shock. Frontiers in Medicine. 2023;10.
- 4. *Njenga J*, Nyasinga J, Munshi Z, Muraya A, **Omuse G**, Ngugi C, et al. Genomic characterization of two community-acquired methicillin-resistant *Staphylococcus aureus* with novel sequence types in Kenya. Frontiers in Medicine. 2022;9.
- 5. *Wamalwa MW*, Muna KK, **Omuse G**, Kamwati SK, Gunturu R. Bacteriological Profile of Healthcare Workers and Patients' Hands at Aga Khan University Hospital, Nairobi Outreach Centres. Annals of Pathology and Laboratory Medicine. 2021;8(3):A82-A8.
- 6. *Magori EO*, Kang'ethe SK, Muna KK, **Omuse G**, Revathi G. Bacteria Contamination and Distribution in Patient Care Environment at Mbagathi Hospital Surgical and New-born Units. Annals of Pathology and Laboratory Medicine. 2021;8(3):A69-A74.
- 7. *Etyang AK*, **Omuse G**, Mukaindo AM, Temmerman M. Maternal inflammatory markers for chorioamnionitis in preterm prelabour rupture of membranes: a systematic review and meta-analysis of diagnostic test accuracy studies. *Syst Rev.* 2020;9(1):141.
- 8. *Kagotho E*, **Omuse G**, Okinda N, Ojwang P. Vitamin D status in healthy black African adults at a tertiary hospital in Nairobi, Kenya: a cross sectional study. *BMC Endocr Disord*. 2018;18:1–7.
- 9. *Shivachi Patricia Ingato*, Andrew Nyerere Kimang'a, **Geoffrey Omuse**, Samuel Kariuki, Revathi Gunturu VD: Characteristics of Archived Coagulase Negative Staphylococci Isolates at a University Hospital, Nairobi, Kenya. Open J Med Microbiol 2014:236–241.

# **PUBLICATIONS**

(As Principal or Co-Investigator)

- a. Peer reviewed research papers;
  - 1. Koech A, **Omuse** G, Mugo AG, Mwaniki IG, Mutunga JM, Mukhanya MW, et al. SARS-CoV-2 seroprevalence in pregnant women in Kilifi, Kenya from March 2020 to March 2022. Frontiers in Public Health. 2023;11.
  - 2. **Omuse G**, Kawalya D, Mugaine P, Chege A, Maina D. Neonatal reference intervals for thyroid stimulating hormone and free thyroxine assayed on a Siemens Atellica(R) IM analyzer: a cross sectional study. *BMC Endocr Disord*. 2023;23(1):112.
  - 3. Maina D, **Omuse G**, Ong'ete G, Mugaine P, Sayed S, Moloo Z, et al. Seroprevalence, correlates and kinetics of SARS-CoV-2 nucleocapsid IgG antibody in healthcare workers and nonclinical staff at a tertiary hospital: A prevaccine census study. *PLoS One*. 2022;17(10):e0267619.
  - 4. Omuse G, Chege A, Kawalya DE, Kagotho E, Maina D. Ferritin and its association with anaemia

- in a healthy adult population in Kenya. *PLoS One*. 2022;17(10):e0275098.
- 5. Njenga J, Nyasinga J, Munshi Z, Muraya A, **Omuse G**, Ngugi C, et al. Genomic characterization of two community-acquired methicillin-resistant Staphylococcus aureus with novel sequence types in Kenya. *Frontiers in Medicine*. 2022;9.
- 6. Dube YP, Nyapwere N, Magee LA, Vidler M, Moore SE, Barratt B, et al. Interactions between the Physical and Social Environments with Adverse Pregnancy Events Related to Placental Disorders—A Scoping Review. *Int J Environ Res Public Health* 2020;17(15):5421.
- 7. **Omuse G**, Ichihara K, Maina D, Hoffman M, Kagotho E, Kanyua A, et al. Determination of reference intervals for common chemistry and immunoassay tests for Kenyan adults based on an internationally harmonized protocol and up-to-date statistical methods. *PLoS One*. 2020;15(7):e0235234.
- 8. Samia, P., Premji, S., Tavangar, F., Yim, I. S., Wanyonyi, S., Merali, M., Musana, W., **Omuse,** G., Forcheh, N., Dosani, A., Letourneau, N., and the Maternal Infant Global Health Team Collaborators in Research. 2020. Adverse Childhood Experiences and Changing Levels of Psychosocial Distress Scores Across Pregnancy in Kenyan Women, *International Journal of Environmental Research and Public Health* 2020, Vol. 17, Page 3401 17, 3401-3401.
- 9. Craik R, Russell D, Tribe RM, Poston L, **Omuse G**, Okiro P, et al. PRECISE pregnancy cohort: challenges and strategies in setting up a biorepository in sub-Saharan Africa. *Reprod Health*. 2020;17(Suppl 1):1–9.
- 10. **Omuse G**, Ichihara K, Maina D, Hoffman M, Kagotho E, Kanyua A, et al. Determination of reference intervals for common chemistry and immunoassay tests for Kenyan adults based on an internationally harmonized protocol and up-to-date statistical methods. PLoS One. 2020;15(7):e0235234.
- 11. Magee LA, Strang A, Li L, Tu D, Tumtaweetikul W, Craik R, et al. The PRECISE (PREgnancy Care Integrating translational Science, Everywhere) database: open-access data collection in maternal and newborn health. Reprod Health. 2020;17(Suppl 1):1–13. (I am part of the PRECISE network)
- 12. Dadelszen P Von, Kane MF, Poston L, Craik R, Russell D, Tribe RM, et al. The PRECISE (PREgnancy Care Integrating translational Science, Everywhere) Network's first protocol: deep phenotyping in three sub-Saharan African countries. *Reprod Health*. 2020;17(Suppl 1):1–15. (I am part of the PRECISE network)
- 13. Kane MF, Dadelszen P Von, Makanga PT, Sevene E, Roca A, Dukes P, et al. Harnessing the PRECISE network as a platform to strengthen global capacity for maternal and child health research in sub- Saharan Africa. *Reprod Health*. 2020;17(Suppl 1):1–9. (I am part of the PRECISE network)

- 14. Daniele MAS, Martinez-Alvarez M, Koech A, Vidler M, et al. The contribution of qualitative research within The PRECISE study in Sub-Saharan Africa. *BMC Reprod Health*. 2019;In press(Suppl 1):1–9. (I am part of the PRECISE network)
- 15. Gitaka J, Kamita M, Mureithi D, Ndegwa D, Masika M, **Omuse G**, et al. Combating antibiotic resistance using guidelines and enhanced stewardship in Kenya: a protocol for an implementation science approach. *BMJ Open*. 2020;10:e030823.
- 16. Nisbet AI, **Omuse G**, Revathi G, Adam RD. Seroprevalence data at a private teaching hospital in Kenya: An examination of Toxoplasma gondii, cytomegalovirus, rubella, hepatitis A, and Entamoeba histolytica. *PLoS One*. 2018;13:e0204867.
- 17. **Omuse G**, Maina D, Mwangi J, Wambua C, Radia K, Kanyua A, et al. Complete blood count reference intervals from a healthy adult urban population in Kenya. *Plos one* 2018;1–19.
- 18. **Omuse G**, Maina D, Mwangi J, Wambua C, Kanyua A, Kagotho E, et al. Comparison of equations for estimating glomerular filtration rate in screening for chronic kidney disease in asymptomatic black Africans: a cross sectional study. *BMC Nephrology*; 2017;18:369.
- 19. **Omuse G**, Maina D, Hoffman M, Mwangi J, Wambua C, Kagotho E, Amayo A, Ojwang P, Premji Z, Ichihara K, Erasmus R: Metabolic syndrome and its predictors in an urban population in Kenya: A cross sectional study. *BMC Endocr Disord* 2017, 17
- 20. **Omuse** G, Van Zyl KN, Hoek K, Abdulgader S, Kariuki S, Whitelaw A, Revathi G: Molecular characterization of Staphylococcus aureus isolates from various healthcare institutions in Nairobi, Kenya: a cross sectional study. *Ann Clin Microbiol Antimicrob* 2016, **15**:51
- 21. **Omuse G**, Kassim A, Kiigu F, Hussain SR, Limbe M: Reference intervals for thyroid stimulating hormone and free thyroxine derived from neonates undergoing routine screening for congenital hypothyroidism at a university teaching hospital in Nairobi, Kenya: a cross sectional study. *BMC Endocr Disord* 2016, **16**:23
- 22. Ali Kassim, **Geoffrey Omuse**, Zul Premji and Gunturu Revathi: Comparison of Clinical Laboratory Standards Institute and European Committee on Antimicrobial Susceptibility Testing guidelines for the interpretation of antibiotic susceptibility at a University teaching hospital in Nairobi, Kenya: a cross-sectional study. Ann Clin Microbiol Antimicrob (2016) 15:21
- 23. Maina D, **Omuse G**, Revathi G, Adam RD: Spectrum of Microbial Diseases and Resistance Patterns at a Private Teaching Hospital in Kenya: Implications for Clinical Practice. PLoS One 2016, 11:e0147659
- 24. Samuel Kariuki, Chinyere Okoro, John Kiiru, Samuel Njoroge, **Geoffrey Omuse**, Gemma Langridge, Robert A. Kingsley, Gordon Dougan, Gunturu Revathi: Ceftriaxone-Resistant

- Salmonella enterica Serotype Typhimurium Sequence Type 313 from Kenyan Patients Is Associated with the blaCTX-M-15 Gene on a Novel IncHI2 Plasmid. Antimicrob. Agents Chemother. June 2015 vol. 59 no. 6 3133-3139
- 25. **Omuse G**, Kabera B, Revathi G: Low prevalence of methicillin resistant Staphylococcus aureus as determined by an automated identification system in two private hospitals in Nairobi, Kenya: a cross sectional study. BMC Infect Dis 2014, 14:669.
- 26. Mulwa-Babu E, **Omuse G**, Thorpe L OP: False Positive Hepatitis B surface Antigenemia in two Patients. Afr J Health Sci 2014, 27:134–137.
- 27. **Omuse** G, Shivachi P, Kariuki S, Revathi G: Prevalence of panton valentine leukocidin in carriage and infective strains of Staphylococcus aureus at a referral hospital in Kenya. Open J Med Microbiol 2013:5–11.
- 28. **Omuse G**, Makau P: Interference of cerebrospinal fluid white blood cell counts performed on the Sysmex XT-4000i by yeast and bacteria. Int J Lab Hematol 2013 vol 35 Iss 6 pg e5–e7.
- 29. **Omuse G**, Kariuki S, Revathi G: Unexpected absence of meticillin-resistant Staphylococcus aureus nasal carriage by healthcare workers in a tertiary hospital in Kenya. *J Hosp Infect* 2012, 80:71–3.
- 30. Kohli-Kochhar R, Mulwa E, **Omuse G**, Ojwang P: Macro CK in patients with elevated troponin I levels. Cardiovasc J Afr 2012, 23:e7–e10.
- 31. Kohli-Kochhar R, **Omuse G**, Revathi G: A ten-year review of neonatal bloodstream infections in a tertiary private hospital in Kenya. J Infect Dev Ctries 2011, 5:799–803.
- 32. Kohli R, **Omuse G**, Revathi G: Antibacterial susceptibility patterns of blood stream isolates in patients investigated at the Aga Khan University Hospital Nairobi. East Afr Med J 2010, 87:74–80.
- 33. **Omuse** G, Kohli R, Revathi G: Diagnostic utility of a single Widal test in the diagnosis of typhoid fever at Aga Khan University Hospital (AKUH), Nairobi, Kenya. Trop Doct 2010, 40:43–44.
- b. Peer reviewed review articles;
  - 1. Onyango, S., Mi, J. D., Koech, A., Okiro, P., Temmerman, M., von Dadelszen, P., . . . **Omuse, G**. (2023). Microbiota dynamics, metabolic and immune interactions in the cervicovaginal environment and their role in spontaneous preterm birth. Frontiers in Immunology, 14. doi:10.3389/fimmu.2023.1306473
  - 2. Nyasinga, J., **Omuse, G.**, John, N., Nyerere, A., Abdulgader, S., Newton, M., Whitelaw, A. and Revathi, G. (2020) Epidemiology of *Staphylococcus aureus* Infections in Kenya: Current

State, Gaps and Opportunities. *Open Journal of Medical Microbiology*, **10**, 204-221.

3. Etyang AK, **Omuse G**, Mukaindo AM, Temmerman M. Maternal inflammatory markers for chorioamnionitis in preterm prelabour rupture of membranes: a systematic review and meta-analysis of diagnostic test accuracy studies. Syst Rev. 2020;9(1):141.

#### c. Letters to Editor:

- 1. **Omuse G**, Maranga J, Abdillah A, Maina D. Prognosticating COVID-19: A need for Africa-specific laboratory predictors. South African Medical Journal. 2020;110(6):435.
- d. Book(s) authored or co-authored;

None

e. Book Chapter(s) authored co-authored;

None

f. List of peer reviewed abstracts and presentations; invited presentations and other significant presentations;

#### **Conference Abstracts**

- 1. **Omuse G**, Mugaine P, Maina D. Serum ferritin and its association with haemoglobin levels and body mass index in an urban adult population in Kenya. Clin Chim Acta. 2019 Jun 1;493:S438–9.
- 2. Gicheru B, **Omuse G**, Abou-Diwan C, Maina D. Performance evaluation of Nova StatStrip blood glucose monitoring system at a teaching hospital in Kenya. Clin Chim Acta. 2019 Jun 1;493:S645–6.
- 3. Maina D, **Omuse G.** Gestational diabetes mellitus: Laboratory diagnostic criteria affect prevalence. Clinical Chemistry and Laboratory Medicine. 2017.
- 4. Abdullahi N, Maina D, Omuse G. Significance of thyroid antibodies in a healthy adult population in Kenya. Clinical Chemistry and Laboratory Medicine. 2017.
- 5. Magutu V, **Omuse G**, Revathi G. Urinalysis dipstick parameters as predictors of culture outcomes: a screening tool for low resource settings. Histopathology. 2012;61.

## **Conference / workshop oral presentations**

- 2023: Invited speaker for the 49<sup>th</sup> Annual Conference of the Association of Clinical Biochemists of India annual scientific conference held on 13-16<sup>th</sup> September in Thiruvananthapuram, Kerala, India. Presented a talk titled **Reference Intervals** "Still waters run deep".
- 2. 2023: Invited speaker for the Laboratory Professional Week 2023 virtual workshop held on 28th April

- 2023 that was organized by the Empower School of Health. Presented a talk titled "Pathology and laboratory medicine career opportunities and progression".
- 3. 2022: Invited speaker for the Africa Health 3<sup>rd</sup> Laboratory Medicine conference held on September 8<sup>th</sup>-10<sup>th</sup> at the Gallagher Convention centre, Johannesburg, South Africa. Presented a talk titled "Reference intervals: key for quality management of patients with COVID".
- 4. 2022: Invited speaker for the International Society of Laboratory Haematology held onOctobber 28<sup>th</sup> at the Volvo congress centre, Bologna, Italy. Presented a talk titled "**Reference ranges in haematology New challenges**".
- 5. 2022: Invited speaker for the Allergy Society of Kenya conference held between 7<sup>th</sup>-8<sup>th</sup> July at Panafric Hotel, Nairobi. Presented a talk titled "In-vitro testing for IgE mediated allergy: Learning through experience".
- 6. 2022: Invited speaker for the Chem-Labs scientific conference held at the NACECE resource centre, Nairobi on 16<sup>th</sup> June. Presented a talk titled "The role of inflammatory markers in early detection and management of infections".
- 7. 2022: Invited speaker for a Mindray Hematology workshop held at the Panafric Hotel, Nairobi on 7<sup>th</sup> May. Presented a talk titled "Complete blood count reference intervals: Does one size fit all?".
- 8. 2022: Invited speaker for the inaugural AfyaDx network virtual webinar held on 27<sup>th</sup> April "Impacting quality through point of care testing and connectivity: The Aga Khan University Hospital experience"
- 9. 2021: Invited speaker for the Africa Health virtual conference held between 25<sup>th</sup>-29<sup>th</sup> October. Presented a talk titled "**Defining normality: A laboratory perspective**".
- 10. 2020: Invited speaker for a virtual webinar sponsored by Snibe Diagnostics held on November 17th. Presented a talk titled "Inflammatory Markers in COVID-19 Patients".
- 11. 2020: Invited speaker for the Omnia Health Live Africa virtual conference held from October 12<sup>th</sup>-16<sup>th</sup>. Presented a talk titled "Haematological derangements in COVID-19".
- 12. 2019: Invited speaker World Antibiotics Awareness Week held at Radisson Blu Hotel, Upperhill, Nairobi on 20<sup>th</sup> November. Presented a talk titled "Diagnostics as a vital tool to enhance antibiotic stewardship".
- 13. 2019: Invited speaker at Sepsis Day symposium held at Serena Kampala, Uganda on 26<sup>th</sup> October. Presented a talk titled "Tools for sepsis diagnosis and prognosis".
- 14. 2019: Invited speaker at the Medic East Africa conference, Clinical Officer session held at Kenyatta International Conference Centre, Kenya on 24<sup>th</sup> October. Presented a talk titled "Sepsis biomarkers".

- 15. 2019: Key note speaker at the 1st Keton conference held at the Pride Inn Conference Centre, Nairobi on 25<sup>th</sup> July 2019. Presented a talk titled "Quality laboratory diagnosis for better patient outcomes".
- 16. 2018: Invited speaker at the Africa Federation of Clinical Chemistry laboratory quality workshop held at the Nnamdi Azikiwe University, Awka, Anambra State, Nigeria on 20<sup>th</sup> October 2018. Presented a talk titled **"Establishing reference intervals".**
- 17. 2018: Invited speaker at the Africa Federation of Clinical Chemistry point of care workshop held at the Nnamdi Azikiwe University, Awka, Anambra State, Nigeria on 16<sup>th</sup> October 2018. Presented a talk titled "**Troponin testing at the point of care**".
- 18. 2018: Invited speaker at the 7<sup>th</sup> Scientific Conference of the Association of Clinical Chemists of Nigeria held at the Nnamdi Azikiwe University, Awka, Anambra State, Nigeria from the 17<sup>th</sup>-19<sup>th</sup> October 2018. Presented a talk titled "How to establish and maintain internal quality control processes and systems: The Aga Khan University Experience".
- 19. 2018: Invited speaker at the Laboratory Quality Workshop organised by Stellenbosch University, Africa Federation of Clinical Chemistry, University of Nairobi and Clinical Chemists Association of Kenya on 30<sup>th</sup> June 2018. Presented a talk titled "Establishment of reference intervals".
- 20. 2018: Invited speaker at the HUQAS conference held on 20<sup>th</sup> September at the NACECE resource centre. Presented a talk titled "Complete Blood Count Reference Intervals from a Healthy Adult Urban population in Kenya".
- 21. 2017: Invited speaker at the biennial Kenya Association of Clinical Pathologists conference held in Watamu, Kenya on the 15<sup>th</sup>-17<sup>th</sup> November 2017. Presented a talk titled "Metabolic syndrome and its predictors in an urban population in Kenya"
- 22. 2017: Invited speaker at the 3<sup>rd</sup> Point of Care Testing conference held in Nairobi, Kenya on the 13<sup>th</sup>-14<sup>th</sup> November 2017. Presented a talk titled "**Troponin testing at the point of care**".
- 23. 2017: Invited speaker at the STAPHRICA/AFRISTAPHNET MEETING kick off meeting, Accra, Ghana, 15th-16<sup>th</sup> August 2017. Presented a talk titled "Prevalence and molecular epidemiology of MRSA in Nairobi, Kenya"
- 24. 2017: Invited speaker at a knowledge exchange international workshop held in Cape Town, South Africa on the 27-28<sup>th</sup> January 2017. Presented a talk titled "EQA testing for HbA1c and glucose in Kenya"
- 25. 2016: Invited speaker at the Infectious disease symposium organized by the MP Shah Hospital Nairobi held on the 17<sup>th</sup> August 2016. Presented a talk titled "Molecular epidemiology of MRSA in Kenva".
- 26. 2016: Invited speaker at the Aga Khan University Hospital Nairobi junior researchers day held on the 9th July 2016. Presented a talk titled "From one junior researcher to another".
- 27. 2016: Made a presentation during the Aga Khan University Thursday Clinical Meeting on 18<sup>th</sup> March titled "HIV testing: Black, White or Grey".

- 28. 2015: Facilitated a workshop and made an oral presentation titled "How to establish and maintain internal quality control processes and systems: A case study of the Aga Khan University Hospital" at the LabSkills Africa regional workshop held in Kampala, Uganda on the 22nd-24th September 2015
- 29. 2015: Invited speaker at the Infectious disease symposium organized by the MP Shah Hospital Nairobi held on the 8<sup>th</sup> of August 2015. Presented a talk titled "**Sepsis biomarkers**"
- 30. 2015: Invited speaker at the Infectious disease symposium organized by the Infectious Disease Society of Kenya held on the 18-19 June 2015 at the Laico regency hotel, Nairobi. Presented a talk titled "MRSA prevalence in Kenya: Myth or reality"
- 31. 2015. Presented a talk titled "Diagnosis of acute febrile illness: the role of the molecular and serology laboratories" at the inaugural infectious disease symposium at the Aga Khan University Hospital Nairobi held on the 14<sup>th</sup> February 2015
- 32. 2012: Oral presentation at the 4<sup>th</sup> Infection Control Africa Network conference, Cape Town, South Africa 2012. Talk titled "Prevalence of panton valentine leukocidin in carriage and infective strains of *Staphylococcus aureus* at a referral hospital in Kenya"
- 33. 2012: Invited speaker at the Kenya Antibiotic Consensus Symposium, Nairobi, Kenya 2012. Talk titled "Role of rapid diagnostics in reducing emergence of antimicrobial resistance"
- 34. 2009: Invited speaker at the Global Antibiotic Resistance Partnership Inaugural Meeting, Nairobi, Kenya 2009. Talk titled "Methicilin Resistant Staphylococcus aureus (MRSA): The Aga Khan Experience "
- 35. 2009: Facilitated a one day workshop on 'Quality Issues in Antimicrobial Susceptibility testing' held at The Aga Khan University Hospital, Nairobi on November 21, 2009
- g. Others (to include significant reports, policy documents, etc.).
- 1. Contributor to the Ministry of Health 'Interim guidelines on handling of human remains infected with COVID-19 in Kenya' June 2020

### **GRANTS**

- 1. Awarded a Last Mile Travel grant valued at USD 5000 by Aga Khan University to visit Dr Geoffrey Siwo in University of Michigan to work on a research collaboration and grant application.
- Co-principal investigator "Prevalence and genomic characterization of antimicrobial resistance
  of Mycobacterium bovis and other animal adapted members of MTBC in Kenya" funded in
  2023 through an Aga Khan University Research Council grant worth KShs 2,991,396/= (URC Project
  ID: 231020); Gunturu Revathi, Geoffrey Omuse, Stanley Onyango; 2023-2025

- 3. Sub-awardee phase 1 extension of "Strengthening of antimicrobial resistance (AMR) surveillance and response in Kenya" funded in 2022 through the Fleming Fund Kenya grant. UKP 1,500,000/= with UKP 250,822/= sub-awarded to AKU; Awarded to a consortium consisting of International Livestock Research Institute, Washington State University, University of Nairobi, Centre of Microbiology Research-KEMRI and Aga Khan University; 2022-2023
- 4. Collaborator and site lead "Surveillance and epidemiologic evaluation of COVID-19 in Kenya (SEECK)" funded in 2020 through the Bill and Melinda Gates Foundation. USD 466,975/= with USD 57500/= sub-awarded to AKU; 2020-2021
- 2. Co-investigator "PRECISE-DYAD, linking maternal and infant health trajectories in sub-Saharan Africa" funded jointly by The Wellcome Trust and the Department of Health and Social Care (DHSC), through the National Institute for Health Research (NIHR). UKP 3,989,074/= with UKP 1,327,815 sub-awarded to AKU; 2021-2024
- 3. Co-investigator "Understanding phenotype and mechanisms of spontaneous preterm birth in sub-Saharan Africa" funded in 2019 through MRC-UK Maternal and Neonatal Health. UKP 1,263,040/= with UKP 162,639/= sub-awarded to AKU; Tribe Rachel, Etyang Angela, Sesay Abdul, Omuse Geoffrey, Okiro Patricia, Falchi M, Silver Matt, Mason A, Lucilla Poston, Peter von Dadelszen; 2021-2024
- 4. Sub-awardee "Strengthening of antimicrobial resistance (AMR) surveillance and response in Kenya" funded in 2019 through the Fleming Fund Kenya grant. UKP 5,665,599/= with KSHS 19,830,403/= sub-awarded to AKU; Awarded to a consortium consisting of PATH, Washington State University, University of Nairobi, Centre of Microbiology Research-KEMRI, Aga Khan University, International Livestock Research Institute; 2019-2021
- 5. Co-investigator "Dried blood spot analysis to assess adherence to cardiovascular medicines" funded in 2019 by De Montfort University UK. UKP 25,000/= with no sub-award to AKU; Sangeeta Tanna, Louise Dunford, Graham Lawson, <u>Geoffrey Omuse</u>, David Watta; 2019
- 6. Co-investigator for the Kenya study site "Pregnancy Care Integrating Translational Science Everywhere (PRECISE) study" funded by Global Challenges Research Fund (GCRF) UKP 7,000,000/= with UKP 1,430,000 sub-awarded to AKU; von Dadelszen, P., Magee, L., Chappell, L., Poston, L., Sandall, J., Moore, S., Shennan, A., Girardi, G. & Tribe, R.; 2017-2021
- 7. Co-investigator "Integration of a Package of Point of Care Tests into Rural Primary Care Facilities to Improve Access to Basic Antenatal Screening; A cluster randomised stepped wedge trial" funded by Global Challenges Africa. USD 93907/= awarded to AKU; Angela Koech Etyang, Violet Naanyu, Geoffrey Omuse, Margarita Mwai, Mukaindo Mwaniki, Umi Bunu, Rahmadhani Ahmed, Eva Langat, Anthony Ngugi, Isaac Wachira, Job Ogutu, Rose Maina, Rachel Odhiambo, James Orwa, Marleen Temmerman; 2017-2019
- 8. Co-investigator "Genomic Approaches for Understanding Breast Cancer Progression in Kenyan Patients" funded in 2017 by the Kenyan National Research Fund. KSHS 11,800,000/= with KSHS 4,000,000/= sub-award to AKU; Francis Makokha, Geoffrey Omuse, Samuel Gakinya, Carol Hunja, Victor Jeza, Dorcas Wachira, Diana Menya, Angus Nassir; 2018-2020
- 9. Co-investigator "Combating Antibiotic Resistance Using Guidelines And Enhanced Stewardship

- **In Kenya: An Implementation Science Approach**" funded in 2017 by the Kenyan National Research Fund KShs 10,000,000/= with no sub-award to AKU; Jessie Gitaka, <u>Geoffrey Omuse</u>, Moses Ngari, Davies Ndegwa, Lucy Wangari, Moses Masika, Timothy Abuya, Francis Muregi, Matilu Mwau; 2018 2020
- 10. Co-applicant "Biorepository equipment purchase" funded in 2017 through an Aga Khan University Research Council grant worth USD 19,000/= (URC Project ID: 173009PATH-EA); Shahin Sayyed, Rodney Adam, Zahir Moloo, Anders Barasa, Marleen Temmerman, Geoffrey Omuse; 2017 2020
- 11. Principal investigator "Lead exposure in children living in informal settlements of Nairobi" funded in 2017 through an Aga Khan University Research Council grant worth KShs 2,200,000/= (URC Project ID: 172006EA); Geoffrey Omuse, Syama Sinuff, William Macharia, Pauline Samia, Daniel Maina, Maureen Ondayo; 2019 2020
- 12. Co-principal investigator "Establishing adult reference intervals for selected analytes from South Africa, Nigeria and Kenya" partly funded in 2015 through an Aga Khan University Research Council grant worth KShs 718,050/= (URC Project ID: 142008EA); Geoffrey Omuse, Daniel Maina, Peter Ojwang, Angela Amayo; 2015 2018
- 13. Co-investigator "Molecular epidemiology of antibiotic-resistant gram-negative rods in bloodstream infections at a teaching hospital in Kenya" funded in 2015 through an Aga Khan University Research Council grant worth KShs 1,000,000/= (URC Project ID: 142001EA); Daniel Maina, Geoffrey Omuse, Gunturu Revathi, Rodney Adam; 2015-2018
- 14. Co-investigator "Chronic stress and preterm birth: psychosocial, biological, and behavioural perspectives" funded in 2015 through a University of Calgary grant worth Canadian \$ 25,000/= fully sub-awarded to AKU; Shahirose Premji, Mohamoud Merali, Sikolia Wanyonyi, Pauline Samia, Geoffrey Omuse; 2015-2016

NATIONAL AND INTERNATIONAL ISSUED PATENTS (If Applicable)

None

PUBLISHED NATIONAL AND INTERNATIONAL PATENT APPLICATIONS (If Applicable)
None

# GRADUATE STUDENTS SUPERVISED

# **Masters Projects**

- 1. Dr Elsie Ronga, MMed Clinical Pathology, Aga Khan University: **SARS CoV -2 immunoglobulin A in breastmilk: Prevalence, kinetics and associations in women attending two health facilities in Nairobi:** Methodology supervisor Ongoing
- 2. Dr Douglas Munga, MMed Clinical Pathology, Aga Khan University: **Comparison between acute leukemia** screening tube and lineage specific panels for the diagnosis of acute leukemia at the Aga Khan University

- hospital, Nairobi. Methodology supervisor Ongoing
- 3. Mr John Njenga, MSc Medical Microbiology, Jomo Kenyatta University of Agriculture and Technology: Characterization of community acquired methicillin resistant *Staphylococcus aureus* isolated from patients with skin and soft tissue infections within selected health facilities, in Kenya: Third supervisor Completed in 2023
- 4. Mr Antony Kuria, MSc Medical Microbiology, University of Nairobi: **Detection of methicillin resistant** *Staphylococcus aureus* **from Patients at Kenyatta National Hospital in Kenya using phenotypic and molecular methods:** Third supervisor Completed in 2023
- 5. Dr Assumpta Chege, MMed Clinical Pathology, Aga Khan University: **Diagnostic accuracy of high-sensitivity cardiac troponin I in the diagnosis of acute myocardial infarction at the Aga Khan University Hospital Nairobi, Kenya.:** Primary supervisor Completed in 2022
- 6. Dr Patrick Mugaine, MMed Clinical Pathology, Aga Khan University: **Anti-SARS-cov-2 seroprevalence** among healthcare workers at a tertiary referral hospital in Nairobi, Kenya: comparison of two immunoassays: Methodology supervisor Completed in 2022
- 7. Dr Mabel Akena, MMed Clinical Anaesthesiology, Aga Khan University: **Effect of a pre-anaesthesia consultation on parental anxiety scores in children undergoing sedation for MRI at The Aga Khan University Hospital:** Methodology supervisor Deferred on medical grounds
- 8. Mr Festus Mulakoli, MSc Immunology, Kenyatta University: **The prevalence of antibodies to Hepatitis B core antigen among blood donors in a tertiary institution in Nairobi County, Kenya:** Third supervisor Completed in 2021
- 9. Dr Brenda Gicheru, MMed Clinical Pathology, Aga Khan University: **The diagnostic accuracy and mortality** prediction of a point-of-care lactate in adult patients diagnosed with sepsis and septic shock at the emergency department of a tertiary hospital in Nairobi: Methodology supervisor Completed in 2021
- 10. Dr Mercy Githumbi, MMed Paediatrics and Child Health, Aga Khan University: **The prevalence of albuminuria in children with chronic kidney disease in two tertiary hospitals in Nairobi, Kenya:** Methodology supervisor Completed in 2021
- 11. Dr Jackson Njuguna, MMed Obstetrics and Gynaecology, Aga Khan University: **Planned delivery at 37** weeks gestation versus expectant management for non-severe chronic hypertension, a systematic review: Third supervisor Completed in 2021
- 12. Dr Brenda Gicheru, MMed Clinical Pathology, Aga Khan University: **The diagnostic accuracy and mortality** prediction of a point-of-care lactate in adult patients diagnosed with sepsis and septic shock at the emergency department of a tertiary hospital in Nairobi: Methodology supervisor Completed in 2021
- 13. Dr Rhoda Masaku, MMed Paediatrics, Aga Khan University: **Serum 25-hydroxyvitamin D levels in children with mild and severe atopic asthma:** Methodology supervisor Completed in 2020
- 14. Dr Enock Serem, MMed Clinical Pathology, Aga Khan University: Comparison of *Staphylococcus aureus* nasal carriage by dialysis patients and healthcare workers in dialysis centers in Nairobi and neighbouring counties: Methodology supervisor Completed in 2020

- 15. Mr Ephantus Mbugua, MSc Molecular Biology and Bioinformatics, Jomo Kenyatta University of Agriculture and Technology: Clonal diversity, virulence and antimicrobial resistance in *Staphylococcus aureus* isolated from outpatients with skin and soft tissue infections in selected counties in Kenya: Third supervisor Ongoing
- 16. Ms Lillian Korir, MSc Medical Statistics, University of Nairobi: Baseline highly sensitive troponin T and outcome prediction in adults with acute coronary syndrome treated at the Aga Khan University hospital-Kenya: Methodology supervisor Completed in 2019
- 17. Dr Kimondo Mutambuki, MMed Clinical Pathology, Aga Khan University, Nairobi: **Association of serum vitamin D levels with vitamin D receptor expression in breast cancer patients from two referral hospitals**: Methodology supervisor. Completed in 2018
- 18. Dr Abubakar Abdillah, MMed Clinical Pathology, Aga Khan University, Nairobi: **Reference intervals for prothrombin time and activated partial thromboplastin time derived from black African blood donors at a university teaching hospital in Nairobi, Kenya:** Methodology supervisor. Completed in 2018
- 19. Dr Elizabeth Kagotho, MMed Clinical Pathology, Aga Khan University, Nairobi: Vitamin D levels in black African adults at Aga Khan University hospital, Nairobi: Third supervisor. Completed in 2016
- 20. Dr Stephen Mwinga, MMed Obstetrics and Gynaecology, University of Nairobi: Comparison of clinical utility of human epididymis protein 4 (HE4) and cancer antigen 125 (CA-125) for screening and follow up of patients with suspected ovarian cancer in Kenyatta National Hospital: Methodology supervisor. Completed in 2016
- 21. Dr Angela Koech, MMed Obstetrics and Gynaecology, Aga Khan University: Maternal inflammatory markers to diagnose chorioamnionitis and predict neonatal sepsis in preterm pre-labour rupture of membrane: A systematic review: Methodology supervisor. Completed in 2016
- 22. Dr Valerie Magutu, MMed Clinical Pathology, Aga Khan University: The prevalence of malaria and assessment of the uptake of malaria prevention measures in blood donors in two regional blood transfusion centres in Kenya: Third supervisor. Completed in 2015

### **For PhD Students**

None

## SUPERVISION OF OTHER STUDENTS / TRAINEES

Dr Samuel Gitau, Department of Radiology, Aga Khan University: **Diagnostic accuracy of F18-PSMA-1007 PET CT in evaluation of multiple myeloma compared with FDG PET CT**: Mentored him as part of the research mentorship programme conducted by the Department of Population Health. Aga Khan University.