

SAMMY MUSEE WAMBUA

P.O. Box 89354 (80100) ♦ Mombasa – Kenya ♦ (254) 722 656 396 ♦ sammywambua@gmail.com

PROFILE

I am passionate about mentoring. Learning from first- and third world institutions has endowed me with good understanding of how knowledge and skills transfer can be improved. My mentoring call is augmented by over fourteen years' experience in biomedical research.

SKILLS SUMMARY

- ♦ Lab-based Research
- ♦ Quality Management
- ♦ Project Management
- ♦ Epidemiology
- ♦ Clinical Trials
- ♦ Writing

EXPERIENCE

2016 – present Pwani University Kilifi, Kenya

TUTORIAL FELLOW

- Departmental exam coordinator
- Teaching & examining
- Supervising undergraduate projects
- Industrial placement sourcing

2015 – 2016 Pwani University Kilifi, Kenya

PART TIME LECTURER

- Teaching & examining
- Career mentoring
- Supervising undergraduate projects
- Industrial placement sourcing

2011 – present Technical University of Mombasa Mombasa, Kenya

PART TIME LECTURER

- Teaching & examining
- Career mentoring
- Supervising undergraduate projects
- Industrial placement sourcing

2009 – 2015 International Centre for Reproductive Health Mombasa, Kenya

MANAGER, CLINICAL RESEARCH LABORATORY

- Project management & coordination
- Protocol & proposal development
- Clinical laboratory oversight
- Chairman, Educational Committee

2006 – 2009 KEMRI/Walter Reed Project Kisumu, Kenya

LABORATORY SUPERVISOR

- Quality Assurance
- Supervision of lab daily activities
- Execution of industrial training
- Designing sample management systems

2002 – 2005 KEMRI/Wellcome Trust Research Programme Kilifi, Kenya

RESEARCH ASSISTANT

- Training and supervising junior lab staff
- Supervision of daily lab activities
- Methods development & optimization
- Manuscript preparation

2001 – 2002 Universities of Nairobi/Washington/Oxford Nairobi, Kenya

RESEARCH ASSISTANT

- Setting up Molecular HLA typing method
- DNA extraction and HLA typing
- Training and supervising junior lab staff
- Designing and maintenance of database
- ELISpot assays
- Data entry

2000 – 2001 American Universities Preparatory Institute Nairobi, Kenya

LECTURER: Teaching Mathematics, Physics, Chemistry and Biology; Career Mentoring

1992 Kaai Primary School Mwingi, Kenya

TEACHER: Teaching, Setting & Marking exams in: Mathematics, English and Kiswahili

KEY TRAINING

2014 London School of Hygiene & Tropical Medicine London, UK

- M.Sc CLINICAL TRIALS: Regulatory Affairs, Good Clinical Practice & Ethics, Project management, Data management, Protocol development

2011 Contract Laboratory Services Johannesburg, South Africa

- Cert. IMPLEMENTING GCLP (GCLP ToT): Quality Assurance, Staff training & assessment

2010 London School of Hygiene & Tropical Medicine London, UK

- POSTGRADUATE DIPLOMA CLINICAL TRIALS: Statistics, Project Management, Clinical Trials



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2010	College of Public Health, University of Iowa	Iowa, USA
▪	Cert EPIDEMIOLOGY EMERGING INFECTIOUS DISEASES: Epidemiology, Biostatistics, Public health laboratory techniques, Zoonotic diseases	
2010	Kenya Aids Vaccine Initiative/University of Nairobi	Nairobi, Kenya
▪	Cert LABORATORY QUALITY MANAGEMENT SYSTEMS	
2009	Mission for Essential Drugs & Supplies	Mombasa, Kenya
▪	Cert PROJECT MANAGEMENT: Communication, Planning, Management & leadership, Evaluating & Monitoring, Report preparation	
2009	Kenya Aids Vaccine Initiative/University of Nairobi	Nairobi, Kenya
▪	Cert GOOD LABORATORY PRACTICES (GLCP)	
2009	US. Agency for International Development (USAID)	Washington, USA
▪	Cert MONITORING AND EVALUATION FUNDAMENTALS	
2007	San Diego State University	San Diego, USA
▪	BIOMEDICAL QUALITY SYSTEMS: Quality planning, assurance and improvement	
2007	Veterinary Research Institute	Brno, Czech Republic
▪	GOOD RESEARCH PRACTICES (GRP): Ethics in scientific research, Communication	
2001	Institute of Molecular Medicine, University of Oxford	Oxford, UK
▪	MOLECULAR & IMMUNOLOGY ROUTINE TESTS: Molecular HLA genotyping	
2000	University of Nairobi	Nairobi, Kenya
▪	B.Sc ZOOLOGY: Communication, Biostatistics, Physiology, Genetics, Biochemistry,	

RESEARCH SUPERVISION

1. June, Alice Akoth. HIV and hepatitis co-infection among blood donors in coastal Kenya. B.Sc., Mount Kenya University, 2011.
2. Baya, Racheal Sidi. Comparison of culture and wet mount methods in diagnosing *Trichomonas vaginalis* infection among female sex workers in Mombasa. B.Sc., Mount Kenya University, 2011.
3. Gikandi, Antony Ngari. Project *In-vitro* bioactivity of *Stevia rebaudiana* leaf extract on selected human microbiota. B.Sc., Technical University of Mombasa, 2012.
4. Omuoyo, Donwilliams Otieno. Susceptibility of enterics to commercial disinfectants used by the Mombasa Polytechnic University. B.Sc., Technical University of Mombasa, 2012.
5. Mwangi, Lucy Wangari. Consensus primer RT-PCR for HPV DNA testing: method validation in Mombasa. M.Sc., University of Nairobi, 2012.
6. Pandya, Nirja Kishore. Prevalence and incidence of malaria in Hai and Ifakara districts of Tanzania. Dip., Technical University of Mombasa, 2012.
7. Onchieku, Noah Machuki. Effect of anti-retroviral therapy on *Plasmodium falciparum* in HIV patients co-infected with malaria at the Jaramogi Oginga Odinga Teaching and Referral Hospital. B.Sc., Technical University of Mombasa, 2013.
8. Gitau, Emily Wairimu. Comparison of Gen-Probe Aptima to an in-house assay for detection of *Neisseria gonorrhoeae*. B.Sc., Technical University of Mombasa, 2013.
9. Onduko, Emmanuel Moffat. Point prevalence of soil transmitted helminths and *schistosoma haematobium* infection among women in Mombasa. B.Sc., Methodist University, 2014.
10. Kadingo, Ramadhan. Survey of Trichomoniasis among women of reproductive age of Kilifi. B.Sc., Pwani University, 2016.
11. Kashaha, Lilian Tatu. Microbiological risk assessment of ready-to-eat street-vended common fish in Kilifi. B.Sc., Pwani University, 2016.



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PUBLICATIONS

1. Gautam R, Borgdorff H, Jespers V, Francis SC, Verhelst R, Mwaura M, Delany-Moretlwe S, Ndayisaba G, Kyongo JK, Hardy L, Menten J, Crucitti T, Tsivtsivadze E, Schuren F, van de Wijgert JH; Vaginal Biomarkers Study Group. Correlates of the molecular vaginal microbiota composition of African women. *BMC Infect Dis.* 2015;15:86
2. Cournil A, Van de Perre P, Cames C, de Vincenzi I, Read JS, Luchters S, Meda N, Naidu K, Newell ML, Bork K; Kesho Bora Study Group. Early infant feeding patterns and HIV-free survival: findings from the Kesho-Bora trial (Burkina Faso, Kenya, South Africa). *Pediatr Infect Dis J.* 2015;34(2):168-74
3. Jespers V, Crucitti T, Menten J, Verhelst R, Mwaura M, Mandaliya K, Ndayisaba GF, Delany-Moretlwe S, Verstraelen H, Hardy L, Buvé A, van de Wijgert J; Vaginal Biomarkers Study Group. Prevalence and correlates of bacterial vaginosis in different sub-populations of women in sub-Saharan Africa: a cross-sectional study. *PLoS One.* 2014;9(10):e109670
4. Sartorius BK, Chersich MF, Mwaura M, Meda N, Temmerman M, Newell ML, Farley TM, Luchters S; Kesho Bora Study Group. Maternal anaemia and duration of zidovudine in antiretroviral regimens for preventing mother-to-child transmission: a randomized trial in three African countries. *BMC Infect Dis.* 2013; 13:522
5. Cournil A, De Vincenzi I, Gaillard P, Cames C, Fao P, Luchters S, Rollins N, Newell ML, Bork K, Read JS; Kesho Bora Study Group. Relationship between mortality and feeding modality among children born to HIV-infected mothers in a research setting: the Kesho Bora study. *AIDS.* 2013; 27(10):1621-30
6. Kesho Bora Study Group. Maternal HIV-1 disease progression 18-24 months postdelivery according to antiretroviral prophylaxis regimen (triple-antiretroviral prophylaxis during pregnancy and breastfeeding vs zidovudine/single-dose nevirapine prophylaxis): The Kesho Bora randomized controlled trial. *Clin Infect Dis.* 2012; 55(3):449-60
7. Irungu E, Chersich MF, Sanon C, Chege R, Gaillard P, Temmerman M, Read JS, Luchters S; Kesho Bora Study Group. Changes in sexual behaviour among HIV-infected women in west and east Africa in the first 24 months after delivery. *AIDS.* 2012; 26(8):997-1007
8. Kesho Bora Study Group, de Vincenzi I. Triple antiretroviral compared with zidovudine and single-dose nevirapine prophylaxis during pregnancy and breastfeeding for prevention of mother-to-child transmission of HIV-1 (Kesho Bora study): a randomised controlled trial. *Lancet Infect Dis.* 2011; 11(3):171-80
9. Kesho Bora Study Group. Safety and effectiveness of antiretroviral drugs during pregnancy, delivery and breastfeeding for prevention of mother-to-child transmission of HIV-1: the Kesho Bora Multicentre Collaborative Study rationale, design, and implementation challenges. *Contemp Clin Trials.* 2011; 32(1):74-85
10. Kesho Bora Study Group. Eighteen-month follow-up of HIV-1-infected mothers and their children enrolled in the Kesho Bora study observational cohorts. *J Acquir Immune Defic Syndr.* 2010; 54(5):533-41
11. F Rouet, F Lie'geois, A Mouinga, D Kania, J Viljoen, **S Wambua**, N Ngo-Giang-Huong, M Herve', P Martine & E Nerrienet. Current challenges to viral load testing in the context of emerging genetic diversity of HIV-1. *Expert Opin. Med. Diagn.* 2011; 5(3):1-20
12. **Sammy Wambua**, Jedidah Mwacharo, Sophie Uyoga, Alex Macharia, Thomas Williams. Co-inheritance of α^+ thalassaemia and sickle trait results in specific effects on haematological parameters. *BJH* 2006; 133(2): 206 – 209



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13. **Sammy Wambua**, Tabitha Mwangi, Sophie Uyoga, Alex Macharia, Jedidah Mwacharo, Robert Snow, Kevin Marsh, Thomas Williams The effect of α^+ thalassemia on the incidence of malaria and other diseases in children living on the coast of Kenya. *PLoS Med* 2006; 3(5):e158
14. Thomas N. Williams, **Sammy Wambua**, Sophie Uyoga, Alex Macharia, Jedidah K. Mwacharo, Charles R J C Newton, Kathryn Maitland.. Both heterozygous and homozygous α^+ thalassemia protect against severe and fatal *Plasmodium falciparum* malaria on the coast of Kenya. *Blood*. 2005; 106:368-71
15. Thomas N. Williams, Tabitha W. Mwangi, **Sammy Wambua**, Neal D. Alexander, Moses Kortok, Robert W Snow, Kevin Marsh. Sickle cell trait and the risk of *P. falciparum* malaria and other diseases. *J Infect Dis* 2005; 192(1):178-186
16. Thomas N. Williams, Tabitha W. Mwangi, David J. Roberts, Neal D. Alexander, David J. Weatherall, **Sammy Wambua**, Moses Kortok, Robert W Snow, Kevin Marsh. An immune basis for malaria-protection by the sickle cell trait. *PLoS Med* 2005; 2(5):e128
17. Alice M. Nyakeriga, Marita Troye-Blomberg, Jedidah K. Mwacharo, **Sammy Wambua**, Thomas N. Williams. Nutritional iron status in children with α^+ thalassaemia and sickle cell trait in a malaria endemic area on the coast of Kenya. *Haematologica*. 2005; 90(4):552-4
18. A. M. Nyakeriga, T. N. Williams, K. Marsh, **S. Wambua**, H. Perlmann, P. Perlmann, A. Grandien, & M. Troye-Blomberg. Cytokine mRNA Expression and Iron Status in Children Living in a Malaria Endemic Area. *Scand J Immunol*. 2005; 61:370-5
19. Thomas N. Williams, Tabitha W. Mwangi, **Sammy Wambua**, Timothy E. A. Peto, David J. Weatherall, Sunetra Gupta, Mario Recker, Sophie Uyoga, Alex Macharia, Jedidah K. Mwacharo, Robert W. Snow, Kevin Marsh. Negative epistasis of malaria protective genes. *Nature genetics*. 2005; 37: 1253-1257
20. **Wambua, SM.** α -amylase activities in wild *Poecilia reticulata* and farmed *Oreochromis niloticus* and *Clarias gariepinus* from Kenya. Dissertation 2000; Zoology Dept., University of Nairobi.

CHOSEN PRESENTATIONS

1. **EDCTP capacity building achievements at the International Centre for Reproductive Health (ICRH) clinical research laboratory in Mombasa, Kenya.** Sixth EDCTP Forum, 9-12th October 2011. Addis Ababa, Ethiopia.
2. **Introduction to the CPGH-ICRH Clinical Laboratory.** Annual Review Meeting of the University of Nairobi STD/AIDS Collaborative Group, 25-29th Jan 2010, Mayfair Court Holiday Inn, Nairobi, Kenya.
3. **α^+ thalassemia protects against malaria-induced anaemia in children living on the coast of Kenya.** Fourth MIM Pan-African Malaria Conference, Nov 13- 18th, 2005. Yaoundé, Cameroon.
4. **Investigating malaria protective genes through cohort studies.** 12th Oxford Tropical Network Meeting, Oct 10-14th 2004, Sun n Sand Beach Resort, Kilifi, Kenya.
5. **Haemoglobinopathies in Kilifi-prevalence and haematological consequences.** Kilifi-Nairobi Annual Meeting, Mar 9-12th 2004, Mnarani Club, Kilifi, Kenya.



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REFEREES

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