

Curriculum vitae for Prof Faith Hope Among'in Osier

Date of Birth: 1st May 1972
Sex: Female
Marital Status: Married
Children: 3 (Ages 5 years, 1 year, 1 month)
Current position: Clinical Research Fellow and Group Leader
 Kenya Medical Research Institute – Centre for Geographic Medicine
 Research, Coast (KEMRI-CGMRC),
 P.O. Box 230-80108, Kilifi, KENYA.
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Biography

I trained as a clinician at the University of Nairobi, Kenya and obtained my MBChB degree in 1996. I immediately took up my Medical Internship at Coast General Provincial Hospital, in Kenya where I also worked as a Medical Officer in the department of Medicine until March 1998. Thereafter I took up a post as a Medical Officer/Research Officer at KEMRI-Kilifi, working in the Paediatrics Department of Kilifi District Hospital. It was here that I began to develop a career in research, engaging in clinical research studies and actively taking part in institutional academic meetings including weekly journal clubs and seminars. I subsequently specialized in Paediatrics, training both in Kenya and the United Kingdom, becoming a member of the Royal College of Paediatrics and Child Health UK in 2003 and a Consultant Paediatrician in Kenya in 2009. In 2004 I undertook a Masters in Human Immunity at the University of Liverpool, UK where I graduated with distinction, and was awarded a prize for being the best student of the year in the Department of Immunology. I have a PhD from the Open University, UK and currently work as a Clinical Research Fellow and Group Leader at the KEMRI-CGMR-C in Kilifi. I hold an Intermediate Fellowship in Public Health and Tropical Medicine from the Wellcome Trust, UK, and the prestigious MRC/DfID African Research Leader Award. In 2014 I received 3 international awards including the Royal Society Pfizer Award in recognition of my contributions towards understanding naturally acquired immunity against malaria in man. I was also appointed Visiting Professor of Immunology in the Nuffield Department of Medicine at Oxford University, UK and am the Secretary General of the Federation of African Immunological Societies (FAIS). In Kilifi I head the Biosciences Dept, have an active role in capacity building for African Scientists and am building up a dynamic research group.

Employment history

Current post

Dates: 01/01/2013-31/12/2017
 Position: Clinical Research Fellow and Group Leader
 Institution: KEMRI-CGMRC, Kilifi, Kenya

Previous Posts

Dates: 01/01/2010-31/12/2012
 Position: Clinical Research Fellow
 Institution: KEMRI-CGMRC, Kilifi, Kenya
 The Burnet Institute of Medical Research, Melbourne, Australia (2011-2012)

Dates: 01/11/2008 – 28/02/2010
 Position: Clinical Fellow in Immunology
 Institution: KEMRI-CGMRC, Kenya & Centre for Tropical Medicine, Oxford University, UK

Dates: 01/04/2004 – 31/08/2008
 Position: Wellcome Trust Training Fellow
 Institution: KEMRI-CGMRC, Kenya & London School of Hygiene & Tropical Medicine, UK

Dates: 01/08/2001 – 31/03/2004
 Position: Senior House Officer – Paediatrics
 Institution: National Health Service, Mersey Deanery, UK

Dates: 01/04/1998 – 31/07/2001
 Position: Medical Officer (Paediatrics) /Research Assistant
 Institution: Kilifi District Hospital & KEMRI-CGMRC, Kilifi, Kenya

Dates: 01/08/1997 – 31/03/1998
 Position: Medical Officer – Internal Medicine
 Institution: Ministry of Health, Coast Provincial General Hospital, Kenya.

Dates: 01/08/1996 – 31/07/1997
 Position: Medical Intern; Surgery, Medicine, Paediatrics, Obstetrics and Gynaecology
 Institution: Ministry of Health, Coast Provincial General Hospital, Kenya.

Educational Qualifications

Dates	Qualification	Subject	Institution
Oct 14	Professor	Malaria Immunology	University of Oxford, UK
Oct 14	Adjunct Associate Professor	Biomedical Sciences	Pwani University, Kenya
Oct 09	Consultant	Paediatrics	Kenya Medical Pract. & Dent. Board
Nov 08	PhD	Life Sciences	Open University, UK
Sep 04	MSc	Human Immunity	University of Liverpool, UK
Mar 03	MRCPCH	Paediatrics	Royal College of Paed. & Child Health, UK
Nov 96	MBChB	Bachelor of Medicine and Surgery	University of Nairobi, Kenya

Awards

- 2014 Royal Society Pfizer Award – Royal Society, UK
- 2014 5th Merle A. Sande Health Leadership Award – Accordia Foundation, USA
- 2014 1st EVIMalaR Promising African Scientist Award – European Virtual Institute of Malaria Research
- 2013 MRC/DfID African Research Leader – Medical Research Council, UK and the Department for International Development, UK
- 2011 Best oral presentation by a post-doc, “Malaria in Melbourne” - Walter and Eliza Hall Institute, Melbourne, Australia
- 2004 Prize for Best Student of the Year (2004), Department of Immunology, University of Liverpool, UK

Summary of research interests

My research is focused on understanding how humans acquire immunity to malaria, and I aim to translate this knowledge into effective malaria vaccines.

Malaria is responsible for nearly one million deaths annually and reducing the burden caused by this disease is one of the millennium development goals. There is currently no licensed malaria vaccine. However, studies in areas where malaria is frequently experienced have shown that it is possible to acquire immunity against this disease. Other studies have shown that antibodies are an important component of this acquired immunity. My work aims to identify the parasite targets of these protective antibodies and the mechanisms by which they work. I have studied longitudinally monitored cohorts of children and adults in Kenya (Kilifi) and Tanzania, with very encouraging results. I am now extending this work to other malaria-endemic sites in Africa, including Burkina Faso, Mali, Senegal, Ghana, Uganda, and multiple sites in Kenya and Tanzania. I aim to build a comprehensive understanding of the immunogenic proteome of the merozoite and study antibody-dependent immune responses and mechanisms to potential vaccine candidates using these cohort studies. I will also conduct detailed studies in semi-immune adults recruited locally in Kenya to malaria challenge studies.

I lead a research team that currently comprises 2 post-doctoral research assistants, 2 PhD students, 1 Masters level statistician, 3 Graduate Assistant Research Officers and 3 Interns.

Current and Previous Research Grants

- 2015-2020 Co-recipient
Accelerating the development of next generation malaria vaccines through development of innovative trial designs in malaria-endemic areas
£4.5 million
Strategic Award from the Wellcome Trust, UK
- This award includes the Wellcome Trust Sanger Institute, the Jenner Institute, and KEMRI-Wellcome Trust in collaboration with Sanaria. I am involved in screening thousands of immune adults to define different levels of immunity for challenge studies, and will conduct detailed immunological studies for volunteers selected to participate in the trials.
- 2015-2020 Co-recipient
West African Centre for Cell Biology of Infectious Diseases (University of Ghana) - Wellcome Trust DELTAS Programme
£4.5 million
Wellcome Trust DELTAS award for capacity building
- This programme is led from West Africa and I will be involved in training/hosting one Post-doc and one PhD student.
- 2013-2017: Principal recipient
“Defining the merozoite targets of protective immunity against Plasmodium falciparum malaria through multi-centre cohort studies”
£746,000/=
DfID/Medical Research Council, UK
- 2010-2015: Principal recipient
“Comprehensive analysis of the antibody targets of Plasmodium falciparum merozoites and identification of antigens important in the development of naturally acquired immunity to malaria”
£783,233/=
The Wellcome Trust, UK
- 2014: The Royal Society, UK
Defining the role of antigen-specific antibodies in protective immunity against malaria
£11,000/-
Prize money from the Royal Society, UK
- 2013: Principal Recipient, Global Health Travel Award
Conference “Advancing vaccines in the genomics era”
USD 4450
Bill and Melinda Gates Foundation
- 2013: Principal recipient
“Technology transfer for microarray analysis”
£9750
Cambridge-Africa Alborada Research Fund, Cambridge, UK
- 2010-2015: Co-recipient
“Integrated studies of the targets, regulation and consequences of human immunity to malaria”
£1,427,900
The Wellcome Trust, UK

This grant supported the framework for the longitudinal cohort studies that we carried out in Kilifi over the last five years and my main contribution was on merozoite components of acquired immunity.

2011-2013: Co-recipient
 “The use of sera from malaria-immune adults to identify merozoite targets of protective immunity to malaria”
 £115,669
 The Wellcome Trust, UK

This grant supported a Masters student under my supervision. It provided one year taught course fees and stipend and research funds for an additional 18 months. The student is currently undertaking PhD studies in collaboration with Dr. Julian Rayner at the Wellcome Trust Sanger Institute

2008-2010: Co-recipient
 “Naturally acquired antibodies to *P. falciparum* merozoite antigens and protection against severe malaria in Kenyan children”
 £97,022
 The Wellcome Trust, UK

This grant supported a Masters student under my supervision. It provided one year taught course fees and stipend and research funds for an additional 18 months. The student has completed PhD studies and is an early career postdoc.

2004-2008: Principal recipient
 “Immune responses to polymorphic antigens and protection against severe malaria in Kenyan children”
 £190,000
 The Wellcome Trust, UK

Publications

Journals (h-index 16)

1. Llewellyn D, Miura K, Fay MP, Williams AR, Murungi LM, Shi J, Hodgson SH, Douglas AD, **Osier FH**, Fairhurst RM, Diakite M, Pleass RJ, Long CA, Draper SJ. Standardization of the antibody-dependent respiratory burst assay with human neutrophils and *Plasmodium falciparum* malaria. *Sci Rep*. 2015 Sep 16;5:14081.
2. Tanner M, Greenwood B, Whitty CJ, Ansah EK, Price RN, Dondorp AM, von Seidlein L, Baird JK, Beeson JG, Fowkes FJ, Hemingway J, Marsh K, **Osier F**. Malaria eradication and elimination: views on how to translate a vision into reality. *BMC Med*. 2015 Jul 25;13:167. .
3. Rono J, Färnert A, Murungi L, Ojal J, Kamuyu G, Guleid F, Nyangweso G, Wambua J, Kitsao B, Olotu A, Marsh K, **Osier FH**. Multiple clinical episodes of *Plasmodium falciparum* malaria in a low transmission intensity setting: exposure versus immunity. *BMC Med*. 2015 May 13;13(1):114.
4. Hodgson SH, Juma E, Salim A, Magiri C, Njenga D, Molyneux S, Njuguna P,

- Awuondo K, Lowe B, Billingsley PF, Cole AO, Ogwang C, **Osier F**, Chilengi R, Hoffman SL, Draper SJ, Ogutu B, Marsh K. Lessons learnt from the first controlled human malaria infection study conducted in Nairobi, Kenya. *Malar J*. 2015 Apr 28;14(1):182.
5. Boyle MJ, Reiling L, Feng G, Langer C, **Osier FH**, Aspeling-Jones H, Cheng YS, Stubbs J, Tetteh KK, Conway DJ, McCarthy JS, Muller I, Marsh K, Anders RF, Beeson JG. Human Antibodies Fix Complement to Inhibit *Plasmodium falciparum* Invasion of Erythrocytes and Are Associated with Protection against Malaria. *Immunity*. 2015 Mar 17;42(3):580-90.
 6. Hodgson SH, Juma E, Salim A, Magiri C, Kimani D, Njenga D, Muia A, Cole AO, Ogwang C, Awuondo K, Lowe B, Munene M, Billingsley PF, James ER, Gunasekera A, Sim BK, Njuguna P, Rampling TW, Richman A, Abebe Y, Kamuyu G, Muthui M, Elias SC, Molyneux S, Gerry S, Macharia A, Williams TN, Bull PC, Hill AV, **Osier FH**, Draper SJ, Bejon P, Hoffman SL, Ogutu B, Marsh K. Evaluating controlled human malaria infection in Kenyan adults with varying degrees of prior exposure to *Plasmodium falciparum* using sporozoites administered by intramuscular injection. *Front Microbiol*. 2014 Dec 12;5:686.
 7. Terheggen U, Drew DR, Hodder AN, Cross NJ, Mugenyi CK, Barry AE, Anders RF, Dutta S, **Osier F**, Elliott SR, Senn N, Stanisic DI, Marsh K, Siba PM, Mueller I, Richards JS, Beeson JG. Limited antigenic diversity of *Plasmodium falciparum* apical membrane antigen 1 supports the development of effective multi-allele vaccines. *BMC Med*. 2014 Oct 16;12(1):183.
 8. Biswas S, Choudhary P, Elias SC, Miura K, Milne KH, de Cassan SC, Collins KA, Halstead FD, Bliss CM, Ewer KJ, **Osier FH**, Hodgson SH, Duncan CJ, O'Hara GA, Long CA, Hill AV, Draper SJ. Assessment of Humoral Immune Responses to Blood-Stage Malaria Antigens following ChAd63-MVA Immunization, Controlled Human Malaria Infection and Natural Exposure. *PLoS One*. 2014 Sep 25;9(9):e107903. doi: 10.1371/journal.pone.0107903.
 9. **Osier FH**, Mackinnon MJ, Crosnier C, Fegan G, Kamuyu G, Wanaguru M, Ogada E, McDade B, Rayner JC, Wright GJ, Marsh K. New antigens for a multicomponent blood-stage malaria vaccine. *Sci Transl Med*. 2014 Jul 30;6(247):247ra102.
 10. **Osier FHA**, Feng G, Boyle MJ, Langer C, Zhou J, Richards JS, McCallum FJ, Reiling L, Jaworowski A, Anders R, Marsh K, Beeson JG. Opsonic phagocytosis of *Plasmodium falciparum* merozoites: mechanism in human immunity and a correlate of protection against malaria. *BMC Med*. 2014 Jul 1;12:108.
 11. Kamuyu G, Bottomley C, Mageto J, Lowe B, Wilkins PP, Noh JC, Nutman TB, Ngugi AK, Odhiambo R, Wagner RG, Kakooza-Mwesige A, Owusu-Agyei S, Ae-Ngibise K, Masanja H, **Osier FH**, Odermatt P, Newton CR; Study of Epidemiology of Epilepsy in Demographic Sites (SEEDS) group. Exposure to multiple parasites is associated with the prevalence of active convulsive epilepsy in sub-saharan Africa. *PLoS Negl Trop Dis*. 2014 May 29;8(5):e2908.
 12. Crosnier C, Wanaguru M, McDade B, **Osier FH**, Marsh K, Rayner JC, Wright GJ. A library of functional recombinant cell-surface and secreted *P. falciparum* merozoite proteins. *Mol Cell Proteomics*. 2013 Dec;12(12):3976-86.
 13. Rono J, **Osier FH**, Olsson D, Montgomery S, Mhoja L, Rooth I, Marsh K, Färnert A. Breadth of Anti-Merozoite Antibody Responses is Associated with the Genetic Diversity of Asymptomatic *Plasmodium falciparum* Infections and Protection against Clinical Malaria. *Clin Infect Dis*. 2013 Nov;57(10):1409-16

14. Tetteh KK, **Osier FH**, Salanti A, Kamuyu G, Drought L, Faily M, Martin C, Marsh K, Conway DJ. Analysis of antibodies to newly described *Plasmodium falciparum* merozoite antigens supports MSPDBL2 as a predicted target of naturally acquired immunity. *Infect Immun*. 2013 Oct;81(10):3835-42.
15. Murungi LM, Kamuyu G, Lowe B, Bejon P, Theisen M, Kinyanjui SM, Marsh K, **Osier FH**. A threshold concentration of anti-merozoite antibodies is required for protection from clinical episodes of malaria. *Vaccine*. 2013, 31(37):3936-42.
16. Warimwe GM, Murungi LM, Kamuyu G, Nyangweso GM, Wambua J, Naranbhai V, Fletcher HA, Hill AV, Bejon P, **Osier FH**, Marsh K. The ratio of monocytes to lymphocytes in peripheral blood correlates with increased susceptibility to clinical malaria in Kenyan children. *PLoS One*. 2013;8(2):e57320. doi:10.1371/journal.pone.0057320.
17. Lundblom K, Murungi L, Nyaga V, Olsson D, Rono J, **Osier F**, Ogada E, Montgomery S, Scott JA, Marsh K, Färnert A. *Plasmodium falciparum* infection patterns since birth and risk of severe malaria: a nested case-control study in children on the coast of Kenya. *PLoS One*. 2013;8(2):e56032. doi:10.1371/journal.pone.0056032.
18. Rono J, Färnert A, Olsson D, **Osier F**, Rooth I, Persson KE. *Plasmodium falciparum* line-dependent association of in vitro growth-inhibitory activity and risk of malaria. *Infect Immun*. 2012, 80(5):1900-8.
19. Douglas AD, Williams AR, Illingworth JJ, Kamuyu G, Biswas S, Goodman AL, Wyllie DH, Crosnier C, Miura K, Wright GJ, Long CA, **Osier FH**, Marsh K, Turner AV, Hill AV, Draper SJ. The blood-stage malaria antigen PfRH5 is susceptible to vaccine-inducible cross-strain neutralizing antibody. *Nat Commun*. 2011, 2:601. doi: 10.1038/ncomms1615.
20. Borrmann S, Sasi P, Mwai L, Bashraheil M, Abdallah A, Muriithi S, Frühauf H, Schaub B, Pfeil J, Peshu J, Hanpithakpong W, Rippert A, Juma E, Tsofa B, Mosobo M, Lowe B, **Osier F**, Fegan G, Lindegårdh N, Nzila A, Peshu N, Mackinnon M, Marsh K. Declining responsiveness of *Plasmodium falciparum* infections to artemisinin-based combination treatments on the Kenyan coast. *PLoS One*. 2011;6(11):e26005.doi:10.1371/journal.pone.0026005.
21. **Osier FHA**, Weedall GD, Verra F, Murungi L, Tetteh KKA, Bull P, Faber BW, Remarque E, Thomas A, Marsh K, Conway DJ. Allelic diversity and naturally acquired allele-specific antibody responses to *Plasmodium falciparum* apical membrane antigen 1 in Kenya. *Infect Immun*. 2010 Nov;78(11):4625-33.
22. Bejon P, Williams TN, Liljander A, Noor AM, Wambua J, Ogada E, Olotu A, **Osier FH**, Hay SI, Färnert A, Marsh K. Stable and unstable malaria hotspots in longitudinal cohort studies in Kenya. *PLoS Med*. 2010 Jul 6;7(7):e1000304.
23. **Osier FHA**, Murungi LM, Fegan G, Tuju J, Tetteh KK, Bull PC, Conway DJ, Marsh K. ^[L]_[SEP] Allele-specific antibodies to *Plasmodium falciparum* merozoite surface protein-2 and protection against clinical malaria. *Parasite Immunol*. 2010, 32, 193-201
24. Kinyanjui SM, Bejon P, **Osier FHA**, Bull PC, Marsh K^[L]_[SEP] What you see is not what you get: implications of the brevity of antibody responses to malaria antigens and transmission heterogeneity in longitudinal studies of malaria immunity. *Malar. J*. 2009 Oct 28;8:242
25. Berkley JA, Bejon P, Mwangi T, Gwer S, Maitland K, Williams TN, Mohammed S, **Osier F**, Kinyanjui S, Fegan G, Lowe BS, English M, Peshu N, Marsh K, Newton CR. HIV infection, malnutrition, and invasive bacterial infection among children with severe malaria. *Clin Infect Dis*. 2009 Aug 1;49(3):336-43.

26. Bejon P, Mohammed S, Mwangi I, Atkinson SH, **Osier F**, Peshu N, Newton CR, Maitland K, Berkley JA. Fraction of all hospital admissions and deaths attributable to malnutrition among children in rural Kenya. *Am J Clin Nutr.* 2008 Dec;88(6):1626-31.
27. Beeson JG, **Osier FH**, Engwerda CR. Recent insights into humoral and cellular immune responses against malaria. *Trends Parasitol.* 2008 Dec;24(12):578-84.
28. **Osier FHA**, Fegan G, Polley SD, Murungi L, Verra F, Tetteh KKA, Lowe B, Mwangi T, Bull PC, Thomas AW, Cavanagh DR, McBride JS, Lanar DE, Mackinnon M, Conway DJ, Marsh K. "Breadth and magnitude of antibody responses to multiple *Plasmodium falciparum* merozoite antigens are associated with protection from clinical malaria." *Infect Immun.* 2008 May;76(5):2240-8.
29. Verra F, Simpore J, Warimwe GM, Tetteh KK, Howard T, **Osier FH**, Bancone G, Avellino P, Blot I, Fegan G, Bull PC, Williams TN, Conway DJ, Marsh K, Modiano D. Haemoglobin C and S Role in Acquired Immunity against *Plasmodium falciparum* Malaria. *PLoS ONE.* 2007 Oct 3;2(10):e978.
30. **Osier FH**, Polley SD, Mwangi T, Lowe B, Conway DJ, Marsh K. Naturally acquired antibodies to polymorphic and conserved epitopes of *Plasmodium falciparum* merozoite surface protein 3. *Parasite Immunol.* 2007 Aug;29(8):387-94.
31. **Osier FH**, Berkley JA, Newton CR. Life-threatening hyponatraemia and neurotoxicity during chemotherapy for Burkitt's lymphoma. *Trop Doct.* 2006 Jul;36(3):177-8.
32. **Osier FH**, Berkley JA, Ross A, Sanderson F, Mohammed S, Newton CR. Abnormal blood glucose concentrations on admission to a rural Kenyan district hospital: prevalence and outcome. *Arch Dis Child.* 2003 Jul;88(7):621-5.
33. English M, Berkley J, Mwangi I, Mohammed S, Ahmed M, **Osier F**, Muturi N, Ogutu B, Marsh K, Newton CR. Hypothetical performance of syndrome-based management of acute paediatric admissions of children aged more than 60 days in a Kenyan district hospital. *Bull World Health Organ.* 2003;81(3):166-73.
34. Berkley JA, Ross A, Mwangi I, **Osier FH**, Mohammed M, Shebbe M, Lowe BS, Marsh K, Newton CR. Prognostic indicators of early and late death in children admitted to district hospital in Kenya: cohort study. *BMJ.* 2003 Feb 15;326(7385):361.
35. **Osier FH**, Newton CR. Fibrocalculous pancreatic diabetes in a child: case report. *East Afr Med J.* 1999 Dec;76(12):703-5.

Book chapters

1. JG Beeson, FJI Fowkes, L Reiling, FH Osier, DR Drew, GV Brown "Correlates of protection for *Plasmodium falciparum* malaria vaccine development: current knowledge and future research" In *Malaria Vaccine Development*, edited by Prof Giampetro Corradin and Dr Howard Engers

Formal research supervision and mentoring

Since 2006, I have had the opportunity to supervise and mentor individuals at various stages of their training. I have been able to help a few of these to successfully compete for international funding as indicated. Apart from those listed below, I have also supervised with several undergraduate students from our local universities, during short periods (<3 months) of research training. I also host visiting post-doctoral fellows for short periods (2-3 months) from collaborating groups overseas. I have also run a successful “out of hours Journal Club” for young scientists in our institution and taken part in meetings designed to encourage and inspire specific groups of people, eg women scientists and PhD students.

Individual	Level	Role
James Tuju ¹	Post-doc	Supervisor and mentor
Nadine Rujeni	Post-doc	Supervisor and mentor
Linda Murungi	Post-doc	Supervisor and mentor
Linda Murungi ^{1,2,3}	PhD	Co-supervisor, with Dr Draper, Jenner Institute, UK
Josea Rono ³	PhD	Co-supervisor, with Dr Farnert, Karolinska Institute, Sweden
Gathoni Kamuyu	PhD	Co-supervisor, with Dr. Rayner, The Sanger Institute, UK
David Kangoye	PhD	Student advisor, supervising laboratory work
Klara Lundblom ³	PhD	Student advisor, supervised laboratory work
Patience Kiyuka ¹	PhD	Co-Supervisor, with Prof Seppo Meri & Dr. John Waitumbi
Gathoni Kamuyu ^{1,2}	MSc	Supported successful grant application to the Wellcome Trust
Linda Murungi	MSc	Supported successful grant application to the Wellcome Trust
Nimmo Gicheru	MSc	Supervised laboratory based research activities 18 months
Amos Thairu ¹	MSc	Statistician, ongoing supervision and mentoring
Dennis Odera ²	MSc	Supported successful grant application to the Wellcome Trust
Irene Nailain ²	MSc	Currently undertaking a Masters at Leicester University, UK
Fatuma Guleid ¹	ARO	Anticipating funding for Masters in Cape Town in 2016
Mwangi Gakome	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Valentina Ndolo	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Francis Mwambire	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Mercy Katana	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Zipporah Akinyi	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Grace Magoha	Intern	Supervised 6-month attachment at KEMRI-CGMRC
Patricia Maritim ¹	PGD	Supervised for 8 months at KEMRI-CGMRC/Pwani Univ.
Loureen Oduor ¹	PGD	Co-supervised for 8 months at KEMRI-CGMRC/Pwani Univ.
Justine Yasinga ¹	PGD	Supervised for 8 months at KEMRI-CGMRC/Pwani Univ.
James Ngari	Undergrad.	Maseno University, 2-month attachment
Salim Juma	Undergrad.	Maseno University, 2-month attachment

¹Current members of my group.

²I mentored and supported to take on Masters training by helping them obtain internationally competitive funding. One is currently a PhD student and the other completed successfully in 2014.

³PhD studies successfully completed and have now taken up post-doctoral positions.

PGD: Post graduate diploma course shared between KEMRI-CGMRC and Pwani University in Kilifi.

Teaching experience

- 2015: KEMRI-CGMR-C, Kilifi, Kenya
Introduction to Research Course (part of Post-Graduate Diploma Course)
- 2014: Seminars in 4 African Collaborating Countries & in Kenya
Malaria Research and Training Centre, University of Bamako, Mali
Kintampo Health Research Centre, Ghana
Centre National de Recherche et Formation sur le Paludisme, Burkina Faso
Institut Pasteur Dakar, Senegal
Aga Khan University, Nairobi, Kenya
- 2014: Nuffield Department of Medicine Seminar Series
University of Oxford, UK
- 2014: KEMRI Annual Scientific & Health (KASH) seminar series
KEMRI Headquarters, Nairobi, Kenya
- 2014: Enhancing Career Confidence
EVIMalaR Breakfast Seminar, EMBL Heidelberg
- 2013: KEMRI-CGMR-C, Kilifi, Kenya
Introduction to Research Course
- 2013: Kenyan Universities Links Seminar Series, KEMRI-CGMRC
Lectures given at three Kenyan Universities
- Kenyatta University, Nairobi
 - Jomo Kenyatta University of Agriculture and Technology, Nairobi
 - Chiromo Campus, University of Nairobi, Nairobi
- 2013: KEMRI-Wellcome Trust PhD Annual Students Retreat
Mombasa, Kenya
- 2013: KEMRI-CGMRC, Kilifi, Kenya
Out of hours journal club for research interns
- 2012: Career development for women scientists
Federation of African Immunological
Durban, South Africa
- 2009: KEMRI-CGMRC, Kilifi, Kenya
Introduction to Research Course
- 2009 KEMRI-CGMRC, Kilifi, Kenya
-2007: Out of hours journal club for research interns

Leadership and Management roles

- 2013-2017: Group Leader
Manage a research group that currently has on average about 10 members (including shorter-term students and/or visiting scientists)
- 2013-2017: MRC/DfID African Research Leader
Leading a multi-centre study involving 12 research sites in 7 African countries
- 2015-2017 Chair
Department of Biosciences (formerly PVHB, below)
KEMRI-CGMR-C
- 2015 IUIS Education Committee
- 2014-2015: Secretary
Scientific Co-ordinating Committee
KEMRI-CCGMR-C
- 2014-2017 Secretary General
Federation of African Immunological Societies (FAIS)
- 2014: Organising committee
9th Federation of African Immunological Societies (FAIS) Conference
Nairobi, Kenya. 30th Nov to 4th December
- 2013-2015: Vice-chair
Pathogen Vector and Human Biology Department (PVHB)
KEMRI-CGMR-C
- 2013-2016: Member
Executive Board
Federation of African Immunological Societies
- 2013-to date Associate Editor
BMC Infectious Diseases
- 2011-2014: Member
Programme Strategy Group, KEMRI-CGMR-C

Honorary Appointments

- 2014-2017 Visiting Professor of Malaria Immunology
Nuffield Department of Medicine
University of Oxford, Oxford, UK
- 2014-2018 Adjunct Associate Professor
Department of Biomedical Sciences
Pwani University, Kilifi, Kenya
- 2014-2017: Honorary Visiting Research Fellow in Tropical Medicine
Nuffield Department of Tropical Medicine, Oxford University
- 2014-2017: Honorary Burnet Institute Fellow
MacFarlane Burnet Institute for Medical Research and Public Health

Melbourne, Australia

Taught post-graduate courses

Jan 2015 Management Course, Oxford Learning Institute, Oxford University
 Dec 2010 Genomic epidemiology in Africa, Wellcome Trust Advanced Course
 Sep 2008 Principal Investigators' Management Course, KEMRI-CGMR-C
 Aug 2008 Scientific Writing Workshop, KEMRI-CGMR-C
 Dec 2006 Working with Pathogen Genomes, Wellcome Trust Advanced Courses
 Sep 2005 Advanced Course in Epidemiological Analysis, LSHTM, UK
 Jun 2003 Intensive Course in Epidemiology and Medical Statistics, LSHTM, UK

Invited speaker presentations

Molecular Approaches to Malaria, Lorne, Australia. 21-25th Feb 2016 (upcoming)
 Multi-centre cohort studies to identify the targets of protective immunity against *Plasmodium falciparum* malaria.

The Africa Universities Summit, Johannesburg, S.A. 30-31 July 2015
 An Invitation from the Vice-Chancellors Office and Times Higher Education
 University of Johannesburg
 "Moving Africa's Universities forward and building a shared global legacy"

Follow up Conference
 German African Cooperation projects in Infectology, Würzburg, Germany. 10-13th June 2015
 German Research Foundation
 Invited to be a member of panel of experts

Gender Summit 5
 Cape Town, South Africa, April 2015
 Important early career milestones and support

Guest Speaker Aga Khan University Research Day
 Aga Khan University, Nairobi. 5th December 2014
 Naturally acquired immunity to malaria: Identifying targets, understanding mechanisms

Kenya National Malaria Forum, Nairobi, 2014
 Naturally acquired immunity to malaria: Identifying targets, understanding mechanisms

BioMalPar/EVIMalaR conference, Heidelberg, Germany, May 2014
 Understanding immunity to malaria: future directions and aspirations

Kenya Society for Immunology, Nairobi, Kenya. Sep 2013
 Comparative analysis of antibody profiles associated with acquired immunity to malaria

Federation of African Immunological Societies, Durban, South Africa, 2012
 Comparative analysis of antibody profiles associated with acquired immunity to malaria

British Society for Parasitology, April 2010, Cardiff, Wales
Plasmodium falciparum AMA1: Allelic diversity and naturally acquired allele-specific antibodies in Kenya

International and Regional Conference presentations

MRC/DfID African Research Leader Mini-symposium, London, December 2013
Malaria Immunity: Targets and Mechanisms

Keystone Symposia Conference: Advancing Vaccines in the Genomic Era
Rio de Janeiro, Brazil, October-November 2013
Antibody-mediated phagocytosis of merozoites and human immunity against malaria

Oxford Tropical Network meeting, Kilifi, Kenya. October 2013
Naturally acquired immunity against malaria: Targets and Mechanisms

Collaborative meeting between the Wellcome Trust Sanger Institute, Cambridge, UK, the Jenner Institute, Oxford, UK and KEMRI-CGMRC, Kilifi, Kenya.
Meetings held at the Sanger and Jenner Institutes in Oxford, June 2013
Naturally acquired immunity against malaria: Targets and Mechanisms

Molecular Approaches to Malaria, Lorne, Australia, 2012
A threshold concentration of anti-merozoite antibodies is required for protection against malaria

American Society for Tropical Medicine and Hygiene, USA, 2012
A threshold concentration of anti-merozoite antibodies is required for protection against malaria

Prize for the "Best oral presentation by a Post-doc"
"Understanding Naturally Acquired Immunity to Plasmodium Falciparum Malaria: A Critical Role for Anti-merozoite Antibody Concentrations in Predicting Protection From Clinical Episodes"
Malaria in Melbourne, Walter & Elisa Hall Institute, Melbourne, 2011

The XIIth International Congress of parasitology, August 2010, Melbourne, Australia
Allelic diversity and naturally acquired allele-specific antibody responses to Plasmodium falciparum apical membrane antigen 1 in Kenya.

Cell Biology of Malaria: Understand Infection, Targetting Interventions
Johns Hopkins Malaria Research Institute, May 2009, Baltimore, USA
Plasmodium falciparum merozoite surface protein-2 and protection against clinical malaria.

Molecular Approaches to Malaria, February 2008, Lorne, Australia
Breadth and magnitude of antibody responses to multiple Plasmodium falciparum merozoite antigens are associated with protection from clinical malaria

African International Conference on Immunity, April 2007, Victoria Falls, Zimbabwe.
High Levels of Protection from Clinical Malaria Predicted by High Titre Antibodies to Multiple Plasmodium falciparum Merozoite Antigens in Kenyan Children

Oxford Tropical Network meeting, Oxford, March 2006
Prediction and testing of sites under immune-mediated balancing selection in apical membrane antigen 1 (ama-1)

Woods Hole Immunoparasitology Meeting, April 2006, Marine Biological Laboratory, Woods Hole, Massachusetts, USA
Prediction and testing of sites under immune-mediated balancing selection in apical membrane antigen 1 (ama-1) (POSTER)

Multilateral Initiative on Malaria, November 2005, Cameroon
Naturally acquired antibodies to polymorphic and conserved epitopes of Plasmodium falciparum

Merozoite Surface Protein 3 in an endemic Kenyan population

British Society of Parasitology, Joint malaria and Spring meeting, Nottingham, 2005
Naturally acquired antibodies to polymorphic and conserved epitopes of Plasmodium falciparum
Merozoite Surface Protein 3 in an endemic Kenyan

Interviews and Blogs

SciDevNet: Rolling out malaria vaccine research across Africa

<http://www.scidev.net/index.cfm?originalUrl=global/malaria/multimedia/malaria-vaccine-research-africa.html>

Health Kenya blog

<http://healthkenya.co.ke/2014-royal-society-pfizer-award-winner/#comments>

Medical Research Council, UK: Insight

<http://www.insight.mrc.ac.uk/2014/08/06/faith-and-hope-leading-malaria-research-in-africa/>

Wellcome Trust: Researcher Spotlight

<http://blog.wellcome.ac.uk/2014/08/26/researcher-spotlight-dr-faith-osier/>