

Prof. Faith Hope Among'in Osier

Professor of Immunology | Group Leader, Malaria Vaccine Development

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Biography

My vision is to “Make Malaria History”. I lead two core teams of over 25 scientists across KEMRI–Wellcome, Kenya and Heidelberg University Hospital, Germany. Our 15 projects focus on creating highly effective malaria vaccines. We designed an innovative custom protein microarray KILchip ©, a first of its kind in Africa. We built a SMART network of Partners that enabled us to assemble 10,000 samples from across Africa to probe our chip, the largest study of this nature. We anticipate transformative results! We spend ~\$1M annually supported by Wellcome, UKRI, the Alexander von Humboldt Foundation, EDCTP, DELTAS Africa and Tackling Infections to Benefit Africa (TIBA).

As part of the Executive Management at the KWTRP, I provide oversight for teams comprising ~800 individuals across Africa. We conduct multidisciplinary research in human health from ethics to clinical trials and post-registration monitoring of pharmaceutical interventions. We liaise with local governments and regional economic communities, turning research into policy, towards UHC. Our five-year budgets exceed \$120M supported principally by Wellcome, the BMGF, UKRI and DfID.

I am President of the International Union of Immunological Societies (> 60,000 members globally) – the first African and only second woman in this role. I have won multiple prestigious prizes including the Royal Society Pfizer, the Sofja Kovalevskaja and the UKRI-MRC/DFID African Research Leader Awards. I am a 2018 TED Fellow and a Fellow of the African Academy of Sciences. I serve on Boards and Expert Committees at the WHO, Wellcome, UKRI, MVI-PATH & BactiVac. I have a global footprint as a keynote & motivational speaker. I am an Official #TOGETHERBAND Ambassador for the UN Sustainable Development Goal 3: Good Health & Well-being. I am passionate about emerging African scientists as key agents of change, delivering the health interventions our continent urgently needs.

Current Position

Group Leader, Malaria Vaccine Development

Heidelberg University Hospital, Germany and
KEMRI – Wellcome, Kenya
January 2013 – Date

Visiting Professor of Immunology

Oxford University, UK
January 2014 – Date

President

International Union of Immunological Societies
October 2019 – Date

Executive Skills

Visionary Leadership

Ambitious | Bold | Driven

Strong Analytical Skills

Critical | Logical | Consultative

Exceptional People Management

Listen | Negotiate | Motivate

Expert Communication Skills

Eloquent | Engaging | Inspire

Versatile: across cultures and disciplines

Global Citizen | Multi-tasker | Connector

Extensive Networks in Global Public Health

Grass-roots | Research Institutions | Boards & Expert Committees

Current Activities

Leadership

People Management | Projects | Publications | the “Purse”

International Boards

Advisory | Funding | Expert & High-level Committees

Networks and Collaborations

International | African | Institutional

International Speaking Engagements

Careers in Science | Women in Science | Public Engagement

People Management: My core research team has grown from two to over 25 scientists primarily based in Kenya and Germany. We are deliberately multi-cultural and collaborate globally. In Kenya I provide oversight for additional teams comprising ~800 individuals spread across Africa covering our major research themes and working across scientific departments and research Platforms. Administratively, I routinely liaise with multiple teams under the umbrella of operations. I am a member of the Executive Management Committee. KEMRI - Wellcome is a Centre for Tropical Medicine and Global Health, in the Nuffield Department of Medicine at Oxford University.

Projects: My vision is to “Make Malaria History” in my lifetime and I believe that we CAN and MUST innovate to make highly effective malaria vaccines for the most vulnerable. I lead 15 major research projects spanning:

- 1) Vaccine Candidate Discovery - what should we put in malaria vaccines to make them efficacious?
- 2) Correlates of Protection - what’s our best educated guess that this vaccine would
- 3) Mechanisms Underlying Protection – focusing on HOW our vaccines actually kill malaria parasites, we will transform the lives of generations to come.

In Kenya we conduct multidisciplinary research in human health covering communicable and non-communicable diseases, and ranging from ethics to post-registration monitoring of pharmaceutical interventions. We work with the Kenyan Government and African union, turning research into policy and towards Universal Health Coverage.

Publications: In my most highly cited paper published in *Infection & Immunity* in 2008, I showed that the breadth and magnitude of specific anti-merozoite antibodies were strong predictors of protection from malaria – suggesting that it may not be sufficient to include only one malaria antigen in a vaccine formulation but rather carefully select and combine a panel of antigens. We validated this in *Science Translational Medicine* in 2014. At the KWTRP, we average 150 publications/year, including articles in top journals like the *New England Journal of Medicine*, *Nature*, *Science* and the *Lancet*. My all-time favorite was published by Scott *et al* in the *Lancet* in 2011 and showed that malaria predisposes to bacteraemia; basically, controlling malaria would result in major additional benefits by reducing invasive bacterial disease by more than 50%. Let’s make that vaccine!

The “Purse”: My core team spends about 1 million USD annually supported by major funders such as the Wellcome Trust, UKRI, the AvH, EDCTP, DELTAS and TIBA. At the KWTRP our five-year budgets exceed 120M USD supported principally by the Wellcome Trust, the Bill and Melinda Gates Foundation, United Kingdom Research and Innovation and DfID.

Advisory and Funding Board Panels, Societies, Committees: I am privileged to serve on international boards at the Wellcome, UKRI, MVI Path, BactiVac, among others, (see below). In October 2019, I will take over as the first African and only second female President of the International Union of Immunological Societies. As highlighted in a *Nature* article in August 2019, I will preside over a bold plan to increase African representation in the Global Research Community.

Networks and Collaborations: We collaborate globally. I established the SMART network where we designed KILchip ©, a custom microarray that enabled us to conduct the largest cohort study of this kind to-date. As summarized in my 2018 TED Talk with 1.5M views (as of 01 September 2019), we assembled and analyzed ~10,000 samples from 15 locations in seven African countries to answer the question – which combination of antigens are best for a malaria vaccine?

Speaking Invitations, Careers in Science, Women in Science and Public Engagement: I really enjoy public speaking and enabling lay audiences to grasp complex scientific concepts like I did recently at the 2019 Hay Festival. My speaking archive and upcoming engagements can be found on my website. In the same vein, I also enjoy communication through the written word. Check out my articles for *The Conversation*.

Leadership and Influence: In October 2019, I took over as President of the International Union of Immunological Societies having been Vice-President (VP) for three years. We have over 60,000 members worldwide and are the umbrella body for immunological societies globally. As VP, I worked with colleagues to launch the FAIS Legacy Project (1000 African PhDs), driven by my passion to tap into the enormous potential of scientists in resource-constrained settings, to find scientific solutions to health challenges.

I established SMART, a network comprising over 20 international malaria research leaders with whom we share samples, meta-data and skills to accelerate malaria vaccine development. This allowed me to assemble the largest African multi-center cohort study of this nature with >10,000 samples: an incredible resource to guide vaccine development.

Innovation: My team built KILchip ©, a custom *Plasmodium falciparum* protein microarray that's the first of its kind in Africa. The platform has now been extended to *Plasmodium vivax*, and other diseases such as RSV, MERS, RVF. Some of its' key advantages are high-throughput, low cost, minimal sample and adaptability into multiple formats depending on the scientific question. We provide much-needed standardized protein reagents in Africa. We have built new collaborations and partnerships, and contributed to grants in excess of \$ 70M.

SMART (South-South Malaria Research Partnership) was innovative of itself as we used archived samples & metadata from 15 cohort studies across Africa savings worth ~ \$10M that would have been necessary for new prospective studies. I train PhD students from all SMART African partner countries thereby built trust in their home institutions and health ministries.

The combination of KILchip © & SMART will be transformative for malaria vaccine development because it builds the strongest evidence-base to date to guide antigen selection. It brings together power, a standardized approach, high quality correctly folded antigens and covers both the heterogeneity of malaria transmission seen on the African continent, as well as the heterogeneity of clinical malaria with regards to age.

Investment into future scientific leaders: I have directly supervised 20 PhD students from Kenya, Uganda, Tanzania, Senegal, Burkina Faso, Ghana, Mali, Germany and Sweden. At the KWTRP our PhD program has graduated 120 PhDs to date. I am a role model and career inspiration for several hundred.

Accomplished International Speaker / Global Goals Ambassador: I speak at major events like TED, the Hay Festival and the Godrej Leadership Conference. In October and November 2019, I gave a Spotlight Talk at Grand Challenges Africa in Addis Ababa and spoke at the Falling Walls Conference in Berlin, respectively. I am an Official #TOGETHERBAND Ambassador for UN Sustainable Development Goal 3

Honors and Awards

- 2019 #TOGETHERBAND Ambassador for UN Global Goal 3, Project Everyone
- 2018 TED Fellow – Technology, Entertainment and Design (TED), USA
- 2017 Fellow, African Academy of Sciences, AAS
- 2016 Sofja Kovalevskaja Award Winner – Alexander von Humboldt Foundation
- 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 Malaria Institute
- 2013 MRC/DfID African Research Leader – Medical Research Council, UK and DfID
- 2011 Best oral presentation by a post-doc, “Malaria in Melbourne” - WEHI, Australia
- 2004 Best Student of the Year (2004), Dept of Immunology, University of Liverpool, UK

Education

Consultant Paediatrician
Kenya Medical & Dentists Practitioners Board
November 2009

Doctor of Philosophy, Life Sciences
Open University, UK
November 2008

Master of Science – Human Immunity, Distinction
University of Liverpool, UK
September 2004

Member of the Royal College of Paediatrics and Child Health
RCPCH, UK
March 2003

Bachelor of Medicine & Bachelor of Surgery
University of Nairobi, Kenya
November 1996

Clinical Research Fellow, The Burnet Institute of Medical Research, Melbourne, Australia and KEMRI – Wellcome, Kenya
January 2010 – December 2012

A colleague and I established the merozoite opsonic phagocytosis assays and showed in a paper published in BMC Medicine that this was an important correlate of protection against clinical episodes of malaria in humans. I also took on my first PhD student.

Clinical Fellow in Immunology, Centre for Tropical Medicine, Oxford University, UK and KEMRI - Wellcome, Kenya
November 2008 – February 2010

I examined the role of allele-specific immune responses against merozoite surface protein 2 and apical membrane antigen 1 in protection against clinical malaria in humans. These studies suggested that antibodies to both allele-specific and conserved epitopes contributed to clinical protection.

PhD Training Fellow, London School of Hygiene & Tropical Medicine, UK and KEMRI – Wellcome, Kenya
April 2004 – August 2008

My most exciting output remains my most highly cited paper to date, where I showed that the breadth and magnitude of antibody responses to multiple *Plasmodium falciparum* antigens was strongly correlated with a reduced risk of malaria. I have since expanded this principle to cover a larger proportion of the parasite proteome analyzed in a multi-centre cohort study across Africa

Senior House Officer – Paediatrics, National Health Service, Mersey Deanery, UK
The Alder Hey Children's Hospital, Liverpool.
The Wirral NHS Trust, The Wirral
August 2001 – March 2004

I successfully completed by UK Paediatric Membership exams whilst working as a junior doctor.

Medical Officer (Paediatrics) /Research Assistant, KEMRI – Wellcome, Kenya and Kilifi District Hospital, Kenya
April 2004 – July 2001

My first real experience with research, from bedside observations to drug clinical trials and laboratory studies. This is where I got hooked into research, motivated by a wonderful team of British scientists.

Medical Officer – Internal Medicine (and Internship), The Coast General Hospital, Mombasa
Aug 1996 – March 1998

I was on duty in the Surgical dept when tribal clashes broke out in Kenya and worked with others round the clock to save lives

Co-recipient, *Plasmodium vivax* volunteer infection studies in Thailand

£6.5 M

Wellcome, 2018 – 2023

Co-recipient, Tackling infections to benefic Africa (TIBA)

£7 M

NHS National Institutes for Health Research, UK, 2017 – 2021

Principal recipient, Towards a highly effective multi-component vaccine against *Plasmodium falciparum* malaria

€1.625 M

Sofja Kovalevskaja Award, Alexander von Humboldt Foundation, 2016 – 2021

Principal recipient, Harnessing parasite diversity and naturally acquired protective immunity against *Plasmodium falciparum* malaria for the development of highly effective vaccines

€500,000

European & Developing Countries Clinical Trials Partnership (EDCTP), 2016-2021

Co-recipient, Core support renewal for the Wellcome Major Overseas Programme

£40 M

Wellcome, 2016 – 2021

Co-recipient, Accelerating the development of next generation malaria vaccines through development of innovative trial designs in malaria-endemic areas

£4.5 M

Wellcome, 2015 – 2020

Co-recipient, West African Centre for Cell Biology of Infectious Diseases (University of Ghana)

£4.5 M

DELTA Africa Capacity Building, 2015 – 2020

Principal recipient, Defining the merozoite targets of protective immunity against *Plasmodium falciparum* malaria through multi-centre cohort studies

£746,000

African Research Leader, DfID/Medical Research Council, UK, 2013-2017

Co-recipient, Core support renewal for the Wellcome Major Overseas Programme

£32 M

Wellcome, 2011 – 2016

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

Wellcome, 2010 – 2015

Co-recipient, Integrated studies of the targets, regulation and consequences of human immunity to malaria

£1.5 M

Immunology Programme Grant, Wellcome, 2010-2015

Advisory Boards, Expert and Management Committees

2019 – 2022	Committee Member, African Academy of Sciences Intellectual Property Rights
2019	WHO Consultation on Malaria Vaccines and Biologicals Research and Development, Geneva
2019 – 2022	Deputy Chair, Global Health Nutrition Panel, UKRI, UK
2018 – 2022 UK	Panel Member, MRC/DFID African Research Leader Interview Panel, UKRI, UK
2018 – 2022	Board Member, MARCAD, Malaria Research Capacity Development in West & Central Africa
2018 – 2021	Board Member, BactiVac, University of Birmingham, UK
2017 – to date	Consultant, Sumaya Biotech, GmbH, Germany
2017 – 2022	SMART Leader, EDCTP-Funded Network
2016 – 2019	Vice President/President-elect, International Union of Immunological Societies
2016 – 2019	Council Member, MVI/PATH Vaccine Science Portfolio Advisory Council
2016 – 2019	Committee Member, Wellcome Trust International Interview Committee, UK
2016 – 2019	Committee Member, Infection and Immunity Board, UKRI, UK
2017 – 2020	Fellow, African Academy of Sciences
2015 – 2017	Chair, Biosciences Department, KEMRI – Wellcome
2015 – 2016	Chair, Scientific Co-ordinating Committee, KEMRI – Wellcome
2014 – 2015	Secretary, Scientific Co-ordinating Committee, KEMRI – Wellcome
2014 – 2017	Secretary General, Federation of African Immunological Societies (FAIS)
2013-2015:	Vice-chair, Pathogen Vector and Human Biology Department (PVHB), KEMRI

Active Networks/Memberships

Kenyan, German and American Societies of Immunology

EDCTP Fellows Network

Alexander von Humboldt Fellows Network

German African Research Projects Network

German Centre for Infection Research

UKRI MRC/DFID African Research Leader

Fellow, African Academy of Sciences

DELTAS, Africa

Tackling Infections to Benefit Africa

Federation of African Immunological Societies

Honorary Appointments

Visiting Professor of Immunology
Nuffield Department of Medicine, University of Oxford, UK
2014 – 2022

Adjunct Associate Professor
Department of Biomedical Sciences, Pwani University, Kilifi, Kenya
2014 – 2018

Honorary Visiting Research Fellow in Tropical Medicine
Nuffield Department of Tropical Medicine, Oxford University, UK
2014 – 2017

Honorary Burnet Institute Fellow
MacFarlane Burnet Institute for Medical Research and Public Health, Melbourne, Australia
2014 – 2017

Main Supervisor Dissertations

Gathoni Kamuyu (2017) Identifying the merozoite targets of protective immunity against *Plasmodium falciparum* malaria

Current Occupation: Postdoctoral Research Fellow, Imperial College London

Linda Murungi (2014) Severe malaria: Identifying immune targets and mechanisms associated with protection in Kenyan children

Current Occupation: Scientific Programme Manager, IAVI

Josea Rono (2013) Naturally Acquired Immunity to Plasmodium falciparum Malaria: Antibody Responses and Immunological Memory

Current occupation: World Bank Advisor on UHC to Kenya

Ongoing Doctoral Supervision

Candidate	Locations	Anticipated finish date
Patience Kiyuka	Kenya/Finland	2019
Karamoko Niare	Mali/Ghana/Kenya	2020
Irene Nailain	Kenya/Germany	2020
Fauzia Musasia	Kenya/Germany	2020
Akua Botwe	Ghana/Kenya/Sweden	2020
Dennis Odera	Kenya/Germany/UK	2021
Kennedy Mwai	Kenya/Germany/South Africa	2021
Rodney Ogwang	Uganda/Kenya/UK	2022
Doreen Mutemi	Tanzania/Kenya/Sweden	2022
Micha Rosenkranz	Kenya/Germany	2023

Major Keynote Speaker Invitations & Consultations

WHO Consultation on Malaria Vaccines and Biologicals Research and Development, Geneva, July 2019

Gordon Malaria Research Conference Power Hour, Les Diablerets, Switzerland, July 2019
Moderator: Challenges women face in science, issues of diversity and inclusion

Hay Festival, Wales, UK, 30th May 2019
Malaria eradication in Africa: Fact or fiction

Godrej Leadership Conference, Mumbai, May 8 – 9th 2019
Eradicating malaria once and for all

Addressing Africa's HealthCare Challenges, Paris, Jan 23 – 25th 2019
Africa Strategic Consultative Meeting
Transforming Healthcare through Higher Education

Keynote Speaker

Sub-Saharan Network for TB/HIV Research Excellence Conference, Kigali, 26-27th Sep 2018
Secrets to Success in Science

3rd International Congress on Immunity, Victoria Falls, Zimbabwe 3-6th Nov 2018
Science and Careers for women

University of Glasgow, Wellcome Centre for Molecular Parasitology, Glasgow. 8th March 2018,
World Women's Day

18th ICID/XVIII Congreso SADI, Buenos Aires 1-4th March 2018
Correlates of protection from Controlled Human Malaria Infections (CHMI) in Kenyan adults

11th Forum on the Internationalization of Sciences & Humanities, Berlin. 10-11th Dec 2017
Science, Scientists and "Spin"

10th Federation of African Immunological Societies Conference, Hammamet, 3 – 7th Dec 2017
Correlates of protection from Controlled Human Malaria Infections (CHMI) in semi-immune Kenyan adults

Keynote Lecture, Sofja Kovalevskaja 2016 Award Ceremony, Berlin. 15th Nov 2016
Naturally acquired immunity to malaria: Identifying targets, understanding mechanisms

Molecular Approaches to Malaria, Lorne, Australia. 21-25th Feb 2016
Multi-centre cohort studies to identify the targets of protective immunity against 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, June 2015,
German Research Foundation
Expert Panel Member

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

1. [Article on The Conversation](#)
2. [Articles in Nature](#)
3. [ONECampaign: International Day of Women in Science 2019](#)
4. [Faith Osier TED Talk 2018](#)
5. [Interview with Immunopaedia](#)
6. [Royal Society Campaign: Parent, Career, Scientist 7th March 2016](#)
7. [Blog with ONE](#)
8. [SciDevNet: Rolling out malaria vaccine research across Africa](#)
9. [Health Kenya blog](#)
10. [Medical Research Council, UK: Insight](#)
11. [Wellcome Trust: Researcher Spotlight](#)

Publications (h-index 31) & Book Chapters

1. Njuguna P, Maitland K, Nyaguara A, Mwanga D, Mogeni P, Mturi N, Mohammed S, Mwambingu G, Ngetsa C, Awuondo K, Lowe B, Adetifa I, Scott JAG, Williams TN, Atkinson S, **Osier F**, Snow RW, Marsh K, Tsofa B, Peshu N, Hamaluba M, Berkley JA, Newton CRJ, Fondo J, Omar A, Bejon P. Observational study: 27 years of severe malaria surveillance in Kilifi, Kenya. *BMC Med.* 2019 Jul 8;17(1):124.
2. Murungi LM, Kimathi RK, Tuju J, Kamuyu G, **Osier FHA**. Serological Profiling for Malaria Surveillance Using a Standard ELISA Protocol. *Methods Mol Biol.* 2019; 2013:83-90.
3. Yman V, White MT, Asghar M, Sundling C, Sondén K, Draper SJ, **Osier FHA**, Färnert A. Antibody responses to merozoite antigens after natural *Plasmodium falciparum* infection: kinetics and longevity in absence of re-exposure. *BMC Med.* 2019 Jan 30;17(1):22.
4. Kamuyu G, Tuju J, Kimathi R, Mwai K, Mburu J, Kibinge N, Chong Kwan M, Hawkings S, Yaa R, Chepsat E, Njunge JM, Chege T, Guleid F, Rosenkranz M, Kariuki CK, Frank R, Kinyanjui SM, Murungi LM, Bejon P, Färnert A, Tetteh KKA, Beeson JG, Conway DJ, Marsh K, Rayner JC, **Osier FHA**. KILchip v1.0: A Novel *Plasmodium falciparum* Merozoite Protein Microarray to Facilitate Malaria Vaccine Candidate Prioritization. *Front Immunol.* 2018 Dec 11;9:2866.
5. Feng G, Boyle MJ, Cross N, Chan JA, Reiling L, **Osier F**, Staniscic DI, Muellerl, Anders RF, McCarthy JS, Richards JS, Beeson JG. Human Immunization With a Polymorphic Malaria Vaccine Candidate Induced Antibodies to Conserved Epitopes That Promote Functional Antibodies to Multiple Parasite Strains. *J Infect Dis.* 2018 Jun 5;218(1):35-43.
6. Payne RO, Silk SE, Elias SC, Miura K, Diouf A, Galaway F, de Graaf H, Brendish NJ, Poulton ID, Griffiths OJ, Edwards NJ, Jin J, Labbé GM, Alanine DG, Siani L, Di Marco S, Roberts R, Green N, Berrie E, Ishizuka AS, Nielsen CM, Bardelli M, Partey FD, Ofori MF, Barfod L, Wambua J, Murungi LM, **Osier FH**, Biswas S, McCarthy JS, Minassian AM, Ashfield R, Viebig NK, Nugent FL, Douglas AD, Vekemans J, Wright GJ, Faust SN, Hill AV, Long CA, Lawrie AM, Draper SJ. Human vaccination against RH5 induces neutralizing antimalarial antibodies that inhibit RH5 invasion complex interactions. *JCI Insight.* 2017 Nov 2;2(21).
7. Mugenyi CK, Elliott SR, Yap XZ, Feng G, Boeuf P, Fegan G, **Osier FH**, Fowkes FJI, Avril M, Williams TN, Marsh K, Beeson JG. Declining Malaria Transmission Differentially Impacts the Maintenance of Humoral Immunity to *Plasmodium falciparum* in Children. *J Infect Dis.* 2017 Oct 17;216(7):887-898.
8. Abdi AI, Hodgson SH, Muthui MK, Kivisi CA, Kamuyu G, Kimani D, Hoffman SL, Juma E, Ogutu B, Draper SJ, **Osier F**, Bejon P, Marsh K, Bull PC. *Plasmodium falciparum* malaria parasite var gene expression is modified by host antibodies: longitudinal evidence from controlled infections of Kenyan adults with varying natural exposure. *BMC Infect Dis.* 2017 Aug 23;17(1):585.
9. Bryan D, Silva N, Rigsby P, Dougall T, Corran P, Bowyer PW, Ho MM; Collaborative study group. The establishment of a WHO Reference Reagent for anti-malaria (*Plasmodium falciparum*) human serum. *Malar J.* 2017 Aug 5;16(1):314.
10. Offeddu V, Olotu A, **Osier F**, Marsh K, Matuschewski K, Thathy V. High Sporozoite Antibody Titers in Conjunction with Microscopically Detectable Blood Infection Display Signatures of Protection from Clinical Malaria. *Front Immunol.* 2017 May 8;8:488.
11. Tuju J, Kamuyu G, Murungi LM, **Osier FHA**. Vaccine candidate discovery for the next generation of malaria vaccines. *Immunology.* 2017 Oct;152(2):195-206

12. Nkumama IN, O'Meara WP, **Osier FH**. Changes in Malaria Epidemiology in Africa and New Challenges for Elimination. *Trends Parasitol.* 2017 Feb;33(2):128-140.
13. Murungi LM, Sondén K, Odera D, Oduor LB, Guleid F, Nkumama IN, Otiende M, Kangoye DT, Fegan G, Färnert A, Marsh K, **Osier FH**. Cord blood IgG and the risk of severe *Plasmodium falciparum* malaria in the first year of life. *Int J Parasitol.* 2017 Feb;47(2-3):153-162.
14. Boyle MJ, Reiling L, **Osier FH**, Fowkes FJ. Recent insights into humoral immunity targeting *Plasmodium falciparum* and *Plasmodium vivax* malaria. *Int J Parasitol.* 2016 Jul 20. pii: S0020-7519(16)30137-0.
15. Mogeni P, Williams TN, Fegan G, Nyundo C, Bauni E, Mwai K, Omedo I, Njuguna P, Newton CR, **Osier F**, Berkley JA, Hammit LL, Lowe B, Mwambingu G, Awuondo K, Mturi N, Peshu N, Snow RW, Noor A, Marsh K, Bejon P. Age, Spatial, and Temporal Variations in Hospital Admissions with Malaria in Kilifi County, Kenya: A 25-Year Longitudinal Observational Study. *PLoS Med.* 2016 Jun 28;13(6):e1002047.
16. Yman V, White MT, Rono J, Arcà B, **Osier FH**, Troye-Blomberg M, Boström S, Ronca R, Rooth I, Färnert A. Antibody acquisition models: A new tool for serological surveillance of malaria transmission intensity. *Sci Rep.* 2016 Feb 5;6:19472. doi:10.1038/srep19472.
17. Murungi LM, Sondén K, Llewellyn D, Rono J, Guleid F, Williams AR, Ogada E, Thairu A, Färnert A, Marsh K, Draper SJ, **Osier FH**. Severe *Plasmodium falciparum* malaria: targets and mechanisms associated with protection in Kenyan children. *Infect Immun.* 2016 Jan 19. pii: IAI.01120-15. [Epub ahead of print]
18. Kangoye DT, Mensah VA, Murungi LM, Nkumama I, Nebie I, Marsh K, Cisse B, Bejon P, **Osier FH**, Sirima SB; MVVC Infant Immunology Study Group. Dynamics and role of antibodies to *Plasmodium falciparum* merozoite antigens in children living in two settings with differing malaria transmission intensity. *Vaccine.* 2016 Jan 2;34(1):160-6. doi: 10.1016/j.vaccine.2015.10.058. Epub 2015 Nov 11.
19. 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.
20. 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. .
21. 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.
22. 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.
23. 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.

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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

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