

Curriculum vitae

Personal information

Full name: Dr. Hastings Ozwara Suba
Date and place of birth: 16th March 1967, Migori
Nationality: Kenyan
Sex: Male
Marital status: Married to Florence Gwoneki Musalia
Number of Children: Two (Stacy Kamonya and Hague Odiyo)
Current place of residence: Nairobi, Kenya
Official languages: English, Swahili
Current employer: Institute of Primate Research,
National Museums of Kenya,
Current working address: P.O. Box 24481, Karen -00502, Nairobi.
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+254 721 483326 (cell phone). E-mail:
ozwara@primateresearch.org; kamonya2002@yahoo.co.uk

Education background

Year	Institution	Training
May 1998 – April 2003	Leiden University/Biomedical Primate Research Centre, in Rijswijk (BPRC), The Netherlands	PhD. (Molecular Parasitology)
Sep 1991 – 1994	University of Nairobi, in Nairobi, Kenya	MSc., in Parasitology
Sep 1988 – June 1991	University of Nairobi, in Nairobi, Kenya	BSc., Zoology major

Title of PhD Thesis: Development and application of a *Plasmodium knowlesi* genetic modification system

Title of MSc Thesis: Evaluation of immune associated cells in lesions of vervet monkeys infected with *Leishmania major*.

Title of BSc Dissertation: Population control of *Periplaneta americana* By baiting with food materials in *Melia volkensii* extracts.

Major research interests

- Developing a *P. knowlesi*/baboon model for drug and vaccine development against malaria. This includes using the system to understand malaria parasite biology.
- Development of attenuated parasite vaccines using molecular approaches

Employment and Experience

Current position: Head, Department of Tropical and Infectious Diseases, Institute of Primate Research (IPR).

Previous positions:

Year	Institution	Function
Feb 2005 to Present	IPR	Senior Research Scientist
May 2003 to Jan 2005	IPR/ Biomedical Primate Research Centre (BPRC)	Postdoctoral scientist
August 1996 – 2004	IPR, in Nairobi, Kenya	Research scientist
May 1998 – April 2003	BPRC in Rijswijk, Holland	Ph.D. student
July 1997- April 1998	BPRC in Rijswijk, Holland	Guest scientist
May - August 1996	BPRC, in Rijswijk, Holland	Guest scientist
1994 – April 1996	IPR in Nairobi, Kenya	Postgraduate research assistant
Dec 1990 – May 1991	University of Nairobi, Kenya	Research assistant

Administrative and Professional Responsibilities

- Head, Department of Tropical and Infectious Diseases, IPR (Since 2007).
- Chairman Scientific sub committee of the Local Organizing Committee, Africa Network for Drugs and Diagnostics Initiative (ANDI), 3rd International Conference, Nairobi Kenya
- Chairman IPR scientific committee for IPR 1960-2010 Golden jubilee celebrations
- Member, Radiation Protection Board, Radioactive Waste Management committee, Ministry of Health Headquarters (2006 – 2009).
- Member, National Museums of Kenya ISO 9000 implementation committee.
- Member, National Museums of Kenya Human Resource Development committee.
- Chairman Memorandum of Understandings Committee, Institute of Primate Research
- East African Representative, International Biomedical Research Centre (IBRIA).
- External examiner to the Department of Biochemistry, Universities of Nairobi (5 thesis), Jommo Kenyatta (1), Kenyatta (1) and Egerton (1 thesis).
- Supervisor of 2 PhD students, 10 MSc students and 10 undergraduate students from University of Nairobi, Egerton and Kenyatta Universities in Kenya.
- Moderator of Postgraduate examinations University of Nairobi
- Current Secretary of the Institutional Review Committee of IPR (2005 – 2011).
- Chairman IPR scientific conference organizing committee 2007.

Research grants (as Principal Investigator): completed and ongoing

- November 2009 to October 2010. WHO/TDR/MIM grant (\$ 70000) to characterise placental malaria in baboons.
- November 2007 to March 2009. WHO/TDR/MIM grant (\$ 84000) to characterise placental malaria in baboons.
- November 2005 to March 2007. WHO/TDR/MIM grant (\$ 35000) to characterise placental malaria in baboons.
- May 2003 to May 2005, WOTRO/NWO postdoctoral grant (€ 63000) to characterize transgenic expression of host cytokines in *P. knowlesi*.
- April 2003 to February 2004, Re-entry grant (€ 4000).
- May 1998 to April 2003, WOTRO PhD grant (€56000) for PhD studies at Leiden University.

Research grants as Co-PI

- March 2010 to March 2011: Grand Challenges with Dr. Thomas Egwang as PI. (\$100,000).
- June 2010 to May 2012. National Council for Science and Technology of Kenya Women researchers grant to Dr. Michael Gicheru for parasitological characterization of Tungiasis. (\$ 27,000)
- March 2010 to February 2012. National Council for Science and Technology of Kenya Women researchers grant to Professor Anastacia Guantai for in vivo pharmacological characterisation of candidate antimalarials. (\$ 20,000)
- March 2010 to March 2012. National Council for Science and Technology of Kenya Women researchers grant to my PhD student for characterisation of congenital malaria in malaria infected baboons. (\$ 20,000)
- January 2008 to December 2008. WHO/TDR, Research Capacity strengthening grant (\$35000)
- October 2007 to December Feb 2010. John Hopkins University study to characterise malaria vaccines in baboons. (\$72,000)
- September 2007 to 2008. European Union through the AntiMal programme to determine safety and efficacy of new malaria drugs in baboons. (\$100,000 to be shared between IPR and Wellcome Trust Kilifi).
- January 2008 to December 2010. World Bank through Uganda government to develop malaria vaccines between Molecular biology laboratories in Uganda (PI) and IPR (co-PI) in Kenya. (\$800,000).
- September 2008-2012: Co-infections between schistosomiasis and Malaria. Dr. Thomas Kariuki (PI) and myself (co-PI). NIH of \$300,000 for 4 years.

Workshops attended

1. National Council for Science and Technology and United Nations Scientific and Cultural Organization (UNESCO) training workshop on National Bioethics Committee. 22-26 Nov 2010. Nairobi, Kenya.
2. National Council for Science and Technology and United Nations Scientific and Cultural Organization (UNESCO) training workshop on National Bioethics Committee. 16-18 November 2009. Sarova Lion Hill. Nakuru Kenya.
3. United Nations Scientific and Cultural Organization (UNESCO) workshop on domestication of International declaration on bioethics and human rights. MultiMedia University of Kenya. 2009
4. ISO internal auditors training course. Jumuia Conference Centre Limuru. 2008.
5. ISO standards and Performance Appraisal Systems Training Workshop for Heads of Departments. 5th – 7th June, 2007. Garden Hotel, Machakos.
6. Wellcome Trust Advanced Courses: Working with Pathogen Genomes, 11-14 December 2006. KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya.
7. UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) Train the trainer workshop on Effective project planning In Biomedical Research, 23-26 May 2006, Dimesse Sisters, Nairobi, Kenya.
8. UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) workshop on Effective project planning In Biomedical Research, 21-25 March 2006, Trypanosomiasis Research Centre, Nairobi, Kenya.

9. African Malaria Network Trust (AMANET) workshop on molecular biology of malaria vaccine development, 9-11 November 2005, Prestige Palaice Hotel, Younde, Cameroon.
10. HHMI/EMBO/TDR practical course on Functional Genomics of malaria parasites; International Centre for Genetics Engineering and Biotechnology, New Delhi, October 9-18, 2005.
11. Access to Global Online Research in Agriculture (AGORA)/ Health InterNetwork Access to Research (HINARI) training workshop under leadership of Food and Agricultural Organisation (FAO), World Health Organisation, in partnership with Cornell University's Albert R. Mann Library and Rockefeller Foundation. April 26-28, International Livestock research Institute, Nairobi, Kenya.
12. African Malaria Network Trust (AMANET) Workshop on "Malaria Vaccinology in Developing Countries" 14-18 March 2005, Bagamoyo, Tanzania
13. WHO/MIM/TDR Proposal Finalization Workshop, Entebbe, Uganda: 25-29 October 2004.
14. WHO/TDR/South-South Initiative Workshop, Accra, Ghana from 19-21 August 2004.

Workshops facilitated

1. 3rd International Course for Integrative and Organ Systems Pharmacology (IOSP) Africa Initiative. School of Pharmacy, University of Nairobi, Nairobi. 10th – 13th May 2010.
2. Proposal development and fundraising skills for researchers and heritage managers. Kenya Institute of Education, Nairobi. 6th to 9th April 2010.
3. WHO/TDR skill building course for Effective Project Planning and Evaluation in Biomedical Research, Train the Trainer Course at National Museums of Kenya, Nairobi, 20-23 March 2009.
4. WHO/TDR skill building course for Effective Project Planning and Evaluation in Biomedical Research. Kenya Agricultural Research Institute - Trypanosomiasis Research Centre (KARI-TRC), 22th – 25st April 2008.
5. WHO/TDR skill building course for Effective Project Planning and Evaluation in Biomedical Research, Train the Trainer Course at National Institute for Medical Research, Lagos-Nigeria, 20-23 November, 2007.
6. WHO/TDR skill building course for Effective Project Planning and Evaluation in Biomedical Research. Institute of Primate Research, 24th – 27th July 2007.
7. **Member of the organizing team and facilitator:** International Training Workshop on Ethical Considerations & Biomedical Use of Non Human Primates For Research in Tropical Diseases. Sponsored by WHO-TDR/South-South Initiative/ United Nations University-UNU-BIOLAC and National Museums of Kenya. Held at IPR, June 18-27, 2007.
8. WHO/TDR skill building course for Effective Project Planning and Evaluation in Biomedical Research. Kenya Agricultural Research Institute - Trypanosomiasis Research Centre (KARI-TRC), 28th – 31st May 2007.
9. Forgyat-International Brain Research Organisation (IBRO) Course in Neurosciences "Neuroimmunology and Infectious Diseases of the Brain". ICIPE, Duvuville, Nairobi, Kenya, 22-25 May, 2007.
10. UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) workshop on Effective project planning In Biomedical Research, 23-27 October 2006, Institute of Primate Research, Nairobi, Kenya.

11. UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) workshop on Effective project planning In Biomedical Research, 5-9 September 2006, Trypanosomiasis Research Centre, Kenya Agricultural Research Institute (KARI), Nairobi, Kenya.

Abstracts at international scientific meetings

1. Hastings Ozwara, Faith Onditi, Mustafa Barasa, Onkoba Nyamongo, Ayisi John Gilbert, Idle Omar Farah, Chris King and Julie Moore. Baboon model for malaria in pregnancy. 59th American Society for Tropical Medicine and Hygiene (ASTMH) annual Conference, 2-7 November 2010, Atlanta, USA
2. Maina Ichagichu, Hastings Ozwara, Thomas Kariuki, Maina Ngotho and Alexis Nzila. Preclinical evaluation of methotrexate in baboons. 3rd African Network for Drugs and Diseases Initiative (ANDI) high level forum and conference, 10-13 November 2010, United Nations Office, Nairobi Kenya
3. Faith Onditi, Mustafa Barasa, Onkoba Nyamongo, Ayisi John Gilbert, Idle Omar Farah, Julie Moore and Hastings Ozwara. Characteristics of placental malaria in baboons. International Biomedical Research Conference “Translating non-human primate studies into clinical benefits for humans”. 6⁻⁸ July 2010. Nairobi, Kenya
4. Maina Ichagichu, Hastings Ozwara, Thomas Kariuki, Maina Ngotho and Alexis Nzila. Preclinical evaluation of methotrexate in baboons. 5th MIM Pan African Conference, 2-6 November 2009. Nairobi Kenya.
5. Nyakundi R, Maamun J, Akinyi M, Onkoba N, Mulei I, Malhotra I, King C, Ozwara H and Kariuki T. Effect of Chronic Schistosomiasis on Severe Malaria in a Primate Model. 5th MIM Pan African Conference, 2-6 November 2009. Nairobi Kenya.
6. Hastings Ozwara, Faith Onditi, Mustafa Barasa, Onkoba Nyamongo, Ayisi John Gilbert, Idle Omar Farah and Julie Moore. Placental malaria in baboons as a model for understanding parasite sequestration and underlying pathology. 5th MIM Pan African Conference, 2-6 November 2009. Nairobi Kenya.
7. Placental malaria in the baboon model: high sequestration of parasites in the placenta is accompanied by low peripheral infection. Presented at European Science Foundation conference (Infectious Diseases from Basic to Translational Research). 4-9 April 2009. The Cape Winelands, South Africa.
8. Challenges facing researchers in Africa. Meeting of the MIM/TDR Taskforce on Malaria Research Capability Strengthening in Africa. Addis Ababa, Ethiopia, 9-14 March 2008.
9. Placental Malaria in the Baboon Model: High sequestration of parasites in the placenta is accompanied by low peripheral infection. The Royal Society of Tropical Medicine and Hygiene (RSTMH) conference, at the Queen Elizabeth II Conference Centre, London, UK, 13-15 September 2007.

10. Placental Malaria in the Baboon Model: High sequestration of parasites in the placenta is accompanied by low peripheral infection. The Malaria vaccines for the world conference, London, UK, 17-19 September 2007.
11. Placental malaria in baboons infected with *Plasmodium knowlesi*. Meeting of the MIM/TDR Taskforce on Malaria Research Capability Strengthening in Africa & An Informal Consultation on Malaria Research Capacity Needs. Brazzaville, Congo, 26-30 March 2007.
12. Transfection of *Plasmodium knowlesi* in baboons. Fourth Pan African MIM conference 13th –18th November 2005, Younde, Cameroon.
13. Transfection of *Plasmodium knowlesi* in baboons: 25th African Health Sciences conference. October 4-8, 2004, Hotel Intercontinental, Nairobi, Kenya.
14. Primate Research at Institute of Primate Research. PVEN meeting: European Commission research programme contract CT96-0125. 22-24 March 2000. Strasbourg. France.
15. **Hastings Ozwara**, Henk N, Leo Buijs, Magreet Jonker, Jon Heeney, Charanjit Bambra, Alan Thomas and Jan Langermans. Flow cytometric analysis on reactivity of human T-lymphocyte specific and cytokine-receptor specific antibodies with peripheral blood mononuclear cells of chimpanzee (*Pan troglodytes*), rhesus macaque (*Macaca Mulata*), and Squirrel monkey (*Saimiri sciureus*). 1996. South Africa.
16. Evaluation of immune associated cells in vervet monkeys infected with *Leishmania major*. Federation of African Immunological Societies 2nd African Immunology Conference. 23-7 October 1994. Hotel Intercontinental, Nairobi, Kenya.

International Conferences attended

1. 1st Scientific and Health Conference, Kenya Medical Research Institute (KEMRI). 9-11 February 2011. Nairobi. Kenya
2. 59th American Society for Tropical Medicine and Hygiene (ASTMH) annual Conference, 2-7 November 2010, Atlanta, USA
3. 3rd African Network for Drugs and Diseases Initiative (ANDI) high level forum and conference, 10-13 November 2010, United Nations Office, Nairobi Kenya
4. International Biomedical Research Conference “Translating non-human primate studies into clinical benefits for humans”. 6-8 July 2010. Nairobi, Kenya
5. 5th MIM Pan African Conference, 2-6 November 2009. Nairobi Kenya.
6. Europe-Africa Frontier research conference. 4-9 April 2009. The Cape Winelands. Capetown, South Africa.

7. Meeting of the MIM/TDR Taskforce on Malaria Research Capability Strengthening in Africa. Addis Ababa, Ethiopia, 9-14 March 2008
8. 4th Pan African Multilateral Initiative for Malaria (MIM) conference. 13-18 November 2005, Younde, Cameroon.
9. 53rd Annual Meeting of the American Society of Tropical Medicine and Hygiene. November 7-11, 2004, Fontainebleau Hilton Miami Beach, Florida USA.
10. 25th African Health Sciences conference. October 4-8, 2004, Hotel Intercontinental, Nairobi, Kenya.
11. International meeting on cytokines as natural adjuvants: perspectives for vaccine development. 22-24 April 2002, National Institute of Health of Italy, Viale Regina Elena, 299 – Roma. Rome - Italy.
12. Dutch Society for Immunology annual congress. 20-21 December 2001. Golden Tulip Conference Centre, Leeuwenhorst, Noordwijkerhout, The Netherlands.
13. NWO WG/Vaccines/Eijkman Graduate School Joint Vaccines Meeting. 23rd Nov. 2001. Faculty of Veterinary Medicine, University of Utrecht. Utrecht. The Netherlands.
14. Symposium for the opening of the Centre for Infectious Diseases of the Leiden University Medical Centre in 2000.
15. PVEN meeting: European Commission research programme contract CT96-0125. 22-24 March 2000. Strasbourg. France.
16. Netherlands Society for Parasitology Spring meeting. Genomes: from Parasites to Hosts. 10-11 March 2000. Soesterberg. The Netherlands.
17. Amsterdam Leiden Institute for Immunology symposium 1999. Leiden University Medical centre.
18. Netherlands Society for Parasitology Autumn Symposium. 5th Nov. 1999. DLO-Institute for Animal and Health (ID-DLO) Research. Lelystad. The Netherlands.
19. VII European commission Malaria Contract Holders' Meeting. 27-29 September 1999; German Cancer Research Centre (DKFZ), Heidelberg, Germany.
20. Netherlands Society for Parasitology, Autumn Symposium. 13th Nov. 1998. Department of Medical Microbiology and Infectious Diseases, Erasmus Medical Centre Rotterdam. Rotterdam. The Netherlands.
21. Netherlands Society for Parasitology spring meeting. Host-parasite interactions: unusual molecules. 13-14 May 1998. Soesterberg. The Netherlands.

22. Dutch Society for Immunology symposium. Het beest in de mens: microorganismen en afweer. 2-3 April 1998; De Blije Werelt conference centre, Lunteren, The Netherlands.
23. Dutch Society for Immunology annual congress. 17-18 December 1998. Leeuwenhorst Conference Centre, Noordwijkerhout, The Netherlands.
24. Federation of African Immunological Societies 2nd African Immunology Conference. 23-7 October 1994. Hotel Intercontinental, Nairobi, Kenya.

List of publications

- ❖ Teresia Nyawira, Michael Gicheru, Zipporah Ng'ang'a and Hastings Ozwara. 2011. Acute *Plasmodium knowlesi* H infection in olive baboons (*Papio anubis*) is accompanied by high-level of Gamma interferon. INTERNATIONAL JOURNAL OF BIOLOGY. **In press.**
- ❖ Daniel Maina, Gunturu Revathi, Samuel Kariuki, and Hastings Ozwara. 2011. Genotypes and cephalosporin susceptibility in Extended Spectrum Beta-Lactamase producing Enterobacteriaceae in Community. THE JOURNAL OF INFECTION IN DEVELOPING COUNTRIES. **In Press.**
- ❖ Maamun JM, Suleman MA, Akinyi M, **Ozwara H**, Kariuki T, Carlsson HE. 2011. Prevalence of Babesia microti in free-ranging baboons and African green monkeys. J PARASITOL. **97(1):63-7.**
- ❖ Patrick S. Were, Michael M. Gicheru, Erick Mwangi and **Hastings S. Ozwara** (2010). Prophylactic and therapeutic activities of extracts from *Wurbugia ugandensis* Sprague (Canalliace) and *Zanthoxylum usambarensis* (Eng.) Kokwaro (Rutaceae) against *Plasmodium knowlesi* and *Plasmodium berghei*. JOURNAL OF ETHNOPHARMACOLOGY. **130:158-62**
- ❖ Mustafa Barasa, Michael M. Gicheru, Esther A. Kagasi, **Hastings S. Ozwara** (2010). Characterisation of Placental Malaria in olive baboons (*Papio anubis*) infected with *Plasmodium knowlesi* H strain. INTERNATIONAL JOURNAL OF INTEGRATIVE BIOLOGY **9(2): 54-58**
- ❖ Serah K. Muthoni, Hastings S. Ozwara, William T. Mutahi and Dorcas S. Yole (2009). Parasitological and Immunopathological responses Balb/C mice with concomitant Schistosoma mansoni and Plasmodium berghei infections. THE INTERNET JOURNAL OF TROPICAL MEDICINE **5(2).**
- ❖ James M. Munyao, MM Gicheru, ZW Ngang'a, E. Kagasi and **Hastings Ozwara** (2008). Transfection of *Plasmodium knowlesi* in baboon (*Papio anubis*) provides a new system for analysis of parasites expressed transgenes and host-parasite interface. INTERNATIONAL JOURNAL OF INTEGRATIVE BIOLOGY **2(2): 100-108**

- ❖ Agam P. Singh, **Hastings Ozwara**, Clemens H. Kocken, Sunil K. Puri, Alan Thomas and Chetan Chitnis. 2005. Targeted deletion of *Plasmodium knowlesi* Duffy binding protein confirms its role in junction formation during invasion. MOLECULAR MICROBIOLOGY **55**(6), 1925–1934
- ❖ **H. Ozwara Suba**, J.M. Munyao, E.A. Kagasi, J. M. Mwenda, E. Wango, C.H.M. Kocken, A.W. Thomas (2004). Transfection of *Plasmodium knowlesi* in the olive baboon (*Papio anubis*): a new model for characterization of host-parasite interaction. AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE **71**(4):24
- ❖ **Hastings Ozwara**, Jan AM Langermans, Clemens HM Kocken, Annemarie van der Wel , Peter H van der Meide, Richard AW Vervenne, Jason M Mwenda and Alan W. Thomas. Transfected *Plasmodium knowlesi* produces bioactive host IFN- γ : A new perspective for modulating immune responses to malaria parasites. INFECTION AND IMMUNITY. 2003;**71**(8):4375-81.
- ❖ **Hastings Ozwara**, Annemarie van der Wel, Clemens H.M. Kocken, and Alan W. Thomas. Heterologous promoter activity in stable and transient *Plasmodium knowlesi* transgenes. MOLECULAR AND BIOCHEMICAL PARASITOLOGY. 2003;**130**:61-64
- ❖ **Hastings Ozwara**, Jan A. M. Langermans, Jenneby Maamun, Idle O. Farah, Dorcas S. Yole, Jason M. Mwenda, Horst Weiler, and Alan W. Thomas. Experimental *Plasmodium knowlesi* infection in the olive baboon (*Papio anubis*): severe disease is accompanied with cerebral involvement. AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE. 2003;**69**(2):188-94.
- ❖ Clemens H. M. Kocken, **Hastings Ozwara**, Annemarie van der Wel, Annette L. Beetsma, Jason M. Mwenda and Alan W. Thomas. *Plasmodium knowlesi* provides a rapid *in vitro* and *in vivo* transfection system allowing double crossover gene knockout studies. INFECTION AND IMMUNITY. 2002;**70**(2): 655-60
- ❖ **Hastings S. Ozwara**, Clemens H. M. Kocken, David J. Conway, Jason M. Mwenda and Alan W. Thomas. Comparative analysis of *Plasmodium reichenowi* and *P. falciparum* erythrocyte binding proteins reveals selection to maintain polymorphism in the erythrocyte binding region of EBA-175. MOLECULAR AND BIOCHEMICAL PARASITOLOGY 2001;**116**:81-84.
- ❖ **H. Ozwara** and A.Thomas. Heterologous gene expression in *Plasmodium knowlesi*: a highly manipulable system for characterising structure and function of vaccine candidate molecules. Publication of VII European commission meeting of Malaria Contract Holders. September 1999; Heidelberg, Germany.
- ❖ **Hastings Ozwara**, Henk N, Leo Buijs, Magreet Jonker, Jon Heeney, Charanjit Bambra, Alan Thomas and Jan Langermans. Flow cytometric analysis on reactivity of human T-lymphocyte specific and cytokine-receptor specific antibodies with peripheral blood mononuclear cells of chimpanzee (*Pan troglodytes*), rhesus macaque (*Macaca Mullata*), and Squirrel monkey (*Saimiri sciureus*). JOURNAL OF MEDICAL PRIMATOLOGY 1997; **26**:164-171.

- ❖ **Hastings Ozwara**, Joseph Olobo and Lucy Irungu. Evaluation of immune associated cells in lesions of *Leishmania major* infected vervet monkeys (*Cercopithecus aethiops*). AFRICAN JOURNAL OF HEALTH SCIENCES 1995; 2:349-353)

Fellowships, prizes and awards

<i>Year</i>	<i>Award</i>
2005	Multi lateral Initiative for Malaria/African Malaria Network travel award.
2004	American Society of Tropical Medicine Travel award
2004	Dutch Scientific Organisation honorary Publication award
1998	WOTRO PhD scholarship
1991	University of Nairobi MSc scholarship

International Professional Networks Membership

1. Capacity Strengthening for Malaria Research in Africa (CASMARA)
2. International Biomedical Research In Africa (IBRIA)
3. East and Central Africa Reference Training Centre for Effective Project Planning in Health Research Network.
4. Malaria Reference Reagents Resource Centre (MR4)
5. World Health Organization/Health InterNetwork Access to Research Initiative (HINARI).

Professional Societies Membership

1. Dutch Society for Immunology
2. Dutch Society for Parasitology
3. Kenya Society for Immunology
4. American Society for Microbiology

Community service

1. Trustee, Gataka Childrens trust. Registered in United Kingdom for assisting poor children in Kenya
2. Patron: UMURERI self Help group. A CBO whose aim is to improve living conditions of rural communities.
3. Programme Director, Friends Children Development Initiative (FCDI): an NGO affiliated with Quarkers church, whose aim is to take care of widows and orphans of AIDS.

Referees,

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