CURRICULUM VITAE

DORCAS WACHIRA CURRENT POSITION: RESEARCH OFFICER KENYA MEDICAL RESEARCH INSTITUTE

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	2016-To date: Kenyatta University: Doctor of Philosophy (PhD) Immunology
	June 2009: Kenyatta University
	Degree: Master of Science in Immunology
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Education	1999: Moi University
	Degree: BSc Zoology Second Class Honors, upper division
Research Interests/ Expertise	Immunology of infectious and non-infectious diseases, Stem Cell Biology Cancer Immunology, Flowcytometry applications
Short Courses	 Generation and Propagation of BM-derived MSCs from mice 22-24th Oct 2018 Kemri Statistics and STATA training 22nd to 26th May 2017, Kemri Training Center Proposal Writing for Grant Sourcing Training University of Texas Medical Branch (UTMB), KEMRI 14-18 February, 2016 Stem Cell Research: Institute for Cellular & Molecular Medicine, stem Cell Research Unit, University of Pretoria 18th May-12th June 2015 2nd Course of Infectious Diseases: Updates in Clinical and Laboratory Diagnosis"
	November 17 th to Dec 17th 2013, Suez Canal University Ismailia-Egypt
	 "Immunology in the Tropics" short course 1st -16th Sept 2011 MRC/Uganda Virus Research Institute-Entebbe, Uganda International Course on Clinical Immunology of Infectious diseases and Total Quality
	Management (ICCI-TQM) Oct/Nov 2008 Faculty of Medicine, Suez Canal University,
	Supervisory Skills Development Workshop 22-24 th Aug 2012, KEMRI
	 Effective scientific communication and publishing Year attained: Dec 2006, UoN Introduction to Epi info Computer Program CDC/KEMRI –Aug 22nd-25th 2005

Trainings

- Strategic Leadership Development Course 7th May to 15th June 2018 Kenya School of Government, Lower Kabete (fully sponsored by Kemri)
- Good Clinical Laboratory Practice, 18th -21st June, KEMRI Training centre
- Supervisory Skills Development Workshop 22-24th Aug 2012, KEMRI
- REMOXTB Good Clinical Practice (GCP) UoN, 21st Aug 2009 KEMRI
- Good phlebotomy practice/Clinical CD4 Good Laboratory Practice 8th -10th Aug 2007 KEMRI/BD
- FACSACalibur GLP, 2007 KEMRI/BD
- Biorisk Training Course 9-12th May 2013
- Hospital management committee Government guidelines, March 2011, MoH

Global Forum on Bioethics in Research conference Stellenbosch, South Africa from 13th - 14th November 2018 Cell Biology and Regenerative Medicine Research workshop 27th June to 1st July Conferences 2016 in Stellenbosch, South Africa. /Workshops Attended 7th KEMRI Annual Scientific and Health Conference (KASH) 8th to 10th Feb 2017 Panari Hotel, Nairobi The 6th KEMRI Annual Scientific and Health (KASH) Conference "Research for health in a devolved system" 9th to 11th Feb 2016, **BOMA Hotel-Nairobi** KNH/UoN Cancer Symposium "Taking Cancer Care to the Next Level" - 8th April 2015 Kenyatta National Hospital Research and Program Department African Society for Laboratory Medicine (ASLM) Conference, 29th Nov to 4th Dec 2014, Cape Town International Convention Centre, South Africa. Training and Mentoring African Scientists in Stem Cell and Regenerative Medicine Research 16th to 18th June 2014, African Academy of Sciences, Nairobi, Kenya Cell Therapy and Regenerative Medicine Sensitization Workshop 11-13th Nov 2013, African Academy of Sciences, Nairobi Kenya "Follow- up Joint Workshop for the International Course for Clinical Immunology (ICCI) of Infectious Diseases" 17th – 22nd October, 2014, Suez Canal University, Egypt. National Action Plan Workshop, National CBRN Team of Kenya, 8-9 May 2014 United **Nations Nairobi** 10th Annual Conference on "Laboratory Challenges for Molecular Medicine" held at Clinical Pathology Department, FOM-Suez Canal University Egypt 16th -17th Dec 2013 'Prevalence of Hepatitis B and C viral co-infections among HIV-1 infected individuals in Nairobi, Kenya'. KeMU Research Conference "Prevalence of CCR2 gene polymorphisms among HIV infected individuals from different regions in Kenya" 25th - 27th April 2012 1st KEMRI Annual Scientific and Health (KASH) Conference, 9-11th Feb 2011 KEMRI Annual Scientific and Health Seminar: CBRD-KEMRI/BD partnership in Research and Training; 25th May 2012 National Biological postgraduate Scientific Conference-Kenyatta University8th -10th Research Writings **Dorcas Wachira**, Raphael Lihana, Vincent Okoth, Alex Maivo, and Samoel Ashimosi Khamadi Chemokine Coreceptor-2 Gene Polymorphisms among HIV-1 Infected Individuals in Kenya Disease Markers Volume 2015 (2015), Article ID 952067 Beatrice Mukami Muriuki¹, Michael Muita Gicheru¹, **Dorcas Wachira**², Anthony Kebira Nyamache^{23*} and Samoel Ashimosi Khamadi³—Prevalence of Hepatitis B and C viral co-infections among HIV-1 infected individuals in Nairobi, Kenya (2013) BMC Research Notes 2013, 6:363 Albert K; Willy K. Tonui; Michael M; Peter N; Johnstone I; Stella K; Laban N; Dorcas W; Robert K; Milkah M and Lydia N. Evaluation of the Adjuvanticity with Soluble Leishmania Major Antigens in BALB/c Mice (2009). Journal of Nanjing Medical University, 23(6): 1-14. Evaluation of the adjuvanticity of artemisinin with soluble Leishmania major antigens in BALB/c mice. Kimutai, Albert; Tonui, Willy K.; Gicheru, Michael M.; Ngure, Peter Kamau; Ingonga, Johnstone; Kepha, Stella; Njeru, Laban Ireri; Wachira, Dorcas; Muhia, Robert Karanja; Mwanaj, Milkah; Nyamwamu, Lydia B. Journal of Nanjina

Medical University vol. 23 issue 6 November, 2009. p. 359-372

WORK

JAN 2005-TO DATE: KENYA MEDICAL RESEARCH INSTITUTE (KEMRI)

CENTRE FOR BIOTECHNOLOGY RESEARCH AND DEVELOPMENT (CBRD) Immunology Section

- 2012 to date: Research Officer:
- 2005 to 2011: Assistant Research Officer
- Laboratory Supervisor- KEMRI/BD Flow cytometry Laboratory
- Member CBRD Center Scientific Committee

Duties and Responsibilities

- Ag Section Head, Immunology Section
- Proposal development
- Implementation of funded research projects
- Review of manuscripts and proposals
- Development of Immunology section Procurement Plan
- Development and implementation of the Annual Work Plan for the section
- Holding quarterly section meetings for the section
- Compilation of Quarterly PCs for Immunology section
- Member, CBRD scientific committee
- Internal and External Quality Control/Quality Assurance in CD4 testing in monitoring and management of HIV/AIDS
- Coordinator and Facilitator: KEMRI-BD, trainings on Immunophenotyping and Good Laboratory Practices
- Perform any other duties as assigned by the Deputy Director, CBRD

Ongoing Funded Research Activities

- Establishment of a Stem Cell Research Unit at Kemri Role: Co-Pl and Team leader,
 Stem Cell Research Group Ksh 77.1 Million
- Inactivation of the PRH/HHEX tumour suppressor and its effects on inflammatory signalling in prostate cancer (Co-I in charge of the Immunological aspect of the study) –The Newton Fund under UK-Kenya Health Research funded by NRF- Ksh 20 Million
- Generation, Characterization, Maintenance and Propagation of Mice Bone Marrow Derived Mesenchymal Stem Cells and Their Application in Pre-Clinical Animal Model of Diabetes Role: PI Ksh 7 Million
- The Role of Plasmodium falciparum HSP90 in Antimalarial Drug Treatment Outcome in a 2 Malaria Endemic Region, Kisumu County (IRG) Role: Pl Ksh 1 Million
- Spatial distribution and Epidemiology of cancer in Kenya, GoK funding; Role: Co-Pl
 Ksh 2 Million
- Genomic Approaches for Understanding Breast Cancer Progression in Kenyan Patients-NRF funding Role: Co-I (Ksh 19M)
- Functional consequences and gene expression patterns during singular and concurrent application of IL-21 and Rapamycin on Tumor Antigen specific T cells in vitro and in vivo (NACOSTI GRANT) Role: PI Ksh 2 Million
- Development and evaluation of Helicase Dependent Isothermal DNA Amplification and OligoChromatographic dipstick assay (HDA-OC) for point-of-care diagnosis of Wuchereria bancrofti and disease surveillance Role: Co-I
- Evaluation of isothermal amplification methods and development of an OligoChromatographic dipstick assay for point-of-care diagnosis of Wuchereria bancrofti and disease surveillance Role: Co-I

Completed Research Projects

- Role of HIV Co receptors on the progression and pathogenesis of HIV/AIDS Role: PI
- Prevalence of Hepatitis B and C viral co-infections among HIV-1 infected children and adults in Kenya Role: Co-PI
- Prevalence of HSV-2 in HIV-1 infected persons in the Kenyan Population Role, Co-PI
- Pediatric/Adult CD4/CD8 testing for HIV positive infants/adults in Kenya: Role, Co-PI
- Operational Research Training Needs Assessment for Health Care Workers in the County Governments (Member and secretary, Training Technical Working Group)

Other May 2018 to May 2021: Biotechnology Technical committee – Kenya Bureau of **Appointments** Standards (KEBS) Dec 2017 to Dec 2020: Chair, Christian and Scientific Association of Kenya Kemri Nov 2015 to date; National Aids Control Council (NACC) Technical Review Team Member for KASF 2014/15-2018/19 and County HIV/AIDS Strategic Plans (CASPs) 2016-2019; Chair, Kihome School Board of Management Feb 2014-to 2015; Member, Chemical, Biological, Radiological and Nuclear (CBRN) subcommittee) April 2010-2013 Member, Nyeri Provincial General Hospital Board of Management, and Chairperson of Quality Control Subcommittee August 2011- 2013 Member board of Management Michuki technical Training Mentee: Cell Biology and Regenerative Medicine, The African Academy of Sciences Mentorship & Mentor: University Biomedical Research students on attachment/internship, MSc Teaching students and Graduates Experience **Student Supervision:** Bernard Otieno Oduor (MSc. Molecular Medicine) Jomo Kenyatta University of i. Agriculture and Technology Arresting and expanding T cells at the Tscm cell stage through singular and concurrent application of IL-21 and Rapamycin in vitro; ii. Emily Waiai (MSc. Molecular Medicine) Jomo Kenvatta University of Aariculture and Technology Quantification and comparison of the metabolic gene expression patterns (transcriptomic) of AFP Antigen specific T cells during singular and concurrent application of IL-21 and Rapamycin in vitro Mentor: University Biomedical Research students on attachment/internship, MSc students and Graduates Assistant Lecturer: ITROMID REFEREES Referees Dr. Luna Kamau Deputy Director, Centre for Biotechnology Research and Development, Kenya Medical Research Institute P. O. Box 54840 00200 Nairobi-Kenya Mobile: +254724751333. Email: lkamau@kemri.org Dr. Francis W. Makokha Head: Human Health Research Program Directorate of Research and Innovation Mount Kenya University P.O Box 342-01000 Thika Mobile: +254722318247 Email: fmakokha@mku.ac.ke Dr. Kimani Gachuhi Kenya Medical Research Institute P. O. Box 54840 00200 Nairobi-Kenya Mobile: +254722864834 Email: kgachuhi@kemri.org