

CURRICULUM VITAE

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Contacts

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Education

- 1996 - 1998 Postdoctoral Fellow:- Molecular Immunology Group, Institute of Molecular Medicine (IMM), Oxford University, United Kingdom.
- 1991 - 1996 PhD, Department of Medical Microbiology and Infectious Diseases, University of Manitoba, Canada.
- 1990 - 1991 Diploma in Epidemiology, Tufts University, Medford, MA. USA
- 1980 - 1986 MBChB, School of Medicine, College of Health Sciences, University of Nairobi, Nairobi, Kenya.
- 1974 – 1979 Alliance High School, Kikuyu, Kenya
- 1968 -1973 Magadi Primary School in Kajiado

University of Nairobi, Department of Medical Microbiology

Career Progression

- 2008 to date **Chairman**, Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Kenya.
- 2007 to date **Associate Professor**, Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Kenya.
- 2002 - 2007 **Senior Lecturer**, Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Kenya.
- 1998 – 2002 **Lecturer**, Department of Medical Microbiology, School of Medicine, University of Nairobi
- 1989 – 1998 **Assistant Lecturer/Research Doctor**, Department of Medical Microbiology, School of Medicine, University of Nairobi, Kenya

Professional Courses

- 2012 Two weeks training on advanced vaccinology by Foundation Maeruir in France
- 2012 Member of Regional AIDS Training Network's (RATN) Task force on RATN sustainability and repositioning
- 2009 Monitoring and Evaluation of Population and Health Programs
The two week course contributes to the management of population and health programs and projects and to the development of national experts of monitoring and evaluation.
- 2007 Basic CITI course in the protection of Human Research Subjects
Course offered by Independent Review Consulting (IRC)
- 2006 Certificate Course in Advanced Good Laboratory Practice (GLP) in Contract Laboratory Services (CLS) Johannesburg, South Africa
- 2005 Certificate Course in Ethical Aspects of Clinical Research: Department of Clinical Bioethics, NIH and University of Bergen.
- 2005 Certificate in Experimental Epidemiology, Clinical and Field Trials: University of Western Cape, Cape Town, South Africa.
- 2003 Certificate in AIDS Vaccine Trials and Good Clinical Practice (GCP): John Hopkins Bloomberg School of Public Health.
- 2002 Certificate in Bioethics:- International AIDS Research and Training Program: University of Washington Seattle, Washington, USA.
- 2002 Certificate in Good Clinical Laboratory Practice (GCLP):- British Association of Research Quality Assurance, UK.

Research Support

- 2012 to date: Co- Principal Investigator,** Team Grant from GHRI-CHVI Canadian Grant to hold synchronicity forum that will bring together Team Grant beneficiaries from Africa to share experiences and network
- 2012 to date: Principal Investigator.** KAVI-University of Nairobi, Kenya and University of Toronto, Canada team Grant in HIV vaccine discovery. Novel mechanisms and strategies of protection
- 2012 to date:** Consultant for Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) to develop mechanisms and systems to validate laboratory reagents and equipment supported by IFC world Bank
- 2011 to date Board Member** of the European and Developing Countries Clinical trials Partnership (EDCTP).

- 2012 **Principal Investigator**, A phase I double-blind, randomized, placebo-controlled, dose-escalation trial to evaluate the safety and immunogenicity of a Sendai HIV vaccine SeV-G(NP) given intra-nasally and Ad35-GRIN administered intramuscularly in prime-boost regimens in HIV-uninfected, healthy adults volunteers
- 2011 **Principal Investigator**, A cross-sectional study to characterize assays and immune responses in support of HIV vaccine trials.
- 2011 to date: **Principal Investigator**, A double-blind, randomized trial of monthly treatment with topical metronidazole and miconazole co-formulated vaginal suppositories versus placebo for preventing vaginal infection in HIV-seronegative women.
- 2011 to date **Principal Investigator**, A prospective observational study to detect cellular immune function in gastro-intestinal mucosal tissues and peripheral blood.
- 2010 to date **Principal Investigator**, GHRI-CHVI Canadian Grant “The Kenya AIDS Vaccine Initiative (KAVI): A Centre of Excellence for HIV Vaccine/Prevention Trials in East Africa”.
- 2010 to date **Principal Investigator**, Viral Etiology of Gastrointestinal Tract Infections in children in Nairobi, Kenya
- 2010 - date Principal Investigator, Etiology of Respiratory Tract Infections in Children in Nairobi, Kenya.
- 2008 - date Principal Investigator, Use of Immune Assays to improve the diagnosis of active/latent TB in HIV/TB endemic setting
- 2007 - date **Program Director**
Kenya AIDS Vaccine Initiative (KAVI).
- 2007- 2009 **Principal Investigator**, A Phase II, Randomised, Placebo-Controlled, Double-Blind Trial to Evaluate the Safety and Immunogenicity of a Multiclade HIV-1 DNA Plasmid Vaccine Followed by Recombinant, Multiclade HIV-1 Adenoviral Vector Vaccine in Healthy Adult Volunteers at Risk of HIV-IAVI Protocol V002.
- 2005-2007 **Principal Investigator**, Feasibility Study to Determine HIV Incidence in Preparation for Phase III HIV/AIDS Vaccine Trial in Kangemi Division, of Nairobi, Kenya.
- 2005 to date **Principal Investigator**, A Study to evaluate Immunologic and Viral Markers of recently HIV infected volunteers in Kangemi Division of Nairobi, Kenya.
- 2004 - 2006 **Principal Investigator**, A Cross Sectional Study to establish Clinical Laboratory Reference ranges in adults, Kangemi Division of Nairobi, Kenya.

- 2003 –2004 *Principal Investigator*, a Cross Sectional Study to establish HIV Prevalence in a Cohort at high risk of HIV infection, Kangemi Division of Nairobi, Kenya.
- 2003 – 2004 *Co-Principal Investigator* in Phase II Trial of HIV/ AIDS Vaccine, Kenya AIDS Vaccine Initiative (KAVI), Department of Medical Microbiology, University of Nairobi, Kenya.
- 2002 – 2003 *Co-Principal Investigator* in Phase I Trial of HIV/AIDS Vaccine, Kenya AIDS Vaccine Initiative (KAVI), Department of Medical Microbiology, University of Nairobi, Kenya.

Professional (work) Experience

- 2011 to date **Technical Advisor**, Kenya Medical Laboratory Technicians & Technologists Board
- 2006 to date *Reviewer*, East African Medical Journal.
- 2002 to 2007 *Project Manager*, Kenya AIDS Vaccine Initiative (KAVI), Department of Medical Microbiology, University of Nairobi
- 2000 to date *Advisor*, Biomedical and Clinical Science Working Group of African AIDS Vaccine Program (AAVP) WHO, UNAIDS.
- 2001 to date *Advisor/Consultant*, National Polio Eradication Expert Committee (NPEC), Ministry of Health, Kenya.
- 2003 to date *Advisor*, African Childhood Vaccine Program
- 2004 to date *Advisor*, Merck Vaccine Network – Africa
- 1998 – 2002 *Consultant Virologist/Immunologist*, Medical Research Council(MRC) UK, on HIV/AIDS Vaccines in Kenya
- 1987 – 1988 *Medical Officer II*, Kapsabet District Hospital, Kapsabet, Kenya
- 1986 – 1987 *Medical Officer I*, Machakos Provincial Hospital, Machakos, Kenya

Membership in Professional Organizations

- i) Kenya Medical and Dentists Board
 - ii) Kenya Medical Association (KMA)
 - iii) African AIDS Vaccine Program (AAVP)
 - iv) National Polio Expert Committee
 - v) European and Developing Countries Clinical Trials Partnership (EDCTP)
Developing Countries Clinical Committee
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Supervisor of Postgraduate Students

Masters Students (Completed)

- 2000 - 2003 **Julius Otieno Oyugi (Mr.)**
 External Supervisor
 School of Biomolecular Sciences, John Moores University, Liverpool, UK
Topic of Study:- Estimation of HIV-I Incidence using Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS)
- 2001 - 2004 **Bashir Mohammed Farah (Mr.)**
 External Supervisor
 School of Biomolecular Sciences, John Moores University, Liverpool, UK.
Topic of Study:- Validation of gamma interferon ELISPOT assay for HIV Vaccine Trials.
- 2001 - 2004 **J. W. Karuru (Dr.)**
 Department of Medicine, College of Health Sciences, University of Nairobi, Nairobi, Kenya.
Topic of Study:- To determine the prevalence of HCV Infection and HCV/HIV Co-infection among Voluntary blood donors at the National Blood Transfusion Centre and Clients attending VCT at KNH.
- 2001 - 2004 **Kibet Peter Shikuku (Dr.)**
 Department of Human Pathology, College of Health Sciences, University of Nairobi, Nairobi, Kenya.
Topic of Study:- Patterns of Pancreatic Incidences in HIV Patients on Stavudine, Lamivudine and Nevivapine.
- 2001 - 2004 **Gachau Giiwa Albert (Dr.)**
 Department of Human Pathology, College of Health Sciences, University of Nairobi, Kenya.
Topic of Study:- A flow Cytometric Analysis of intranuclear terminal deoxyribonucleotidy transferase (TdT) in acute Lymphoblastic Leukemia Cells.
- 2002 - 2006 **Gitura Muriuki Benard (Dr.)**
 Department of Medicine, College of Health Sciences, University of Nairobi, Kenya.
Topic of Study:- Utility of total Lymphocyte count as a Surrogate Marker for CD4+T Cell Count in the initiation of HAART at KNH.
- 2002 - 2006 **Moturi George (Dr.)**
 Department of Medicine, College of Health Sciences, University of Nairobi, Kenya.
Topic of Study:- Intestinal Parasitic infectious in HIV-I infected Adult patients with Chronic Diarrhoea at Kenyatta National Hospital (KNH).

- 2004 - 2007 **Salim Hassanali(Dr.)**
Department of Medicine, College of Health Science, University of Nairobi,
Nairobi, Kenya.
Topic of Study:- To evaluate the prevalence of resistance to nevirapine
among HIV infected patient attending the comprehensive Care Clinic at
Kenyatta National Hospital.
- 2005 - 2008 **Susan Odera (Ms.)**
Department of Medical Microbiology, College of Health Science, University
of Nairobi, Nairobi, Kenya.
Topic of Study:- A Serological Survey of the prevalence of Legionella
Pneumophilla at the Medical Ward of Kenyatta National Hospital.
- 2005 - 2009 **Onyango James Isaiah Obila (Mr.)**
Department of Medical Microbiology, College of Health Science, University
of Nairobi, Kenya.
Topic of Study: - Dendritic cell frequency and stimulated cytokine
production among Majengo commercial sex workers.
- 2009 - 2011 **Jackton Indangasi (Mr.)**
London School of Hygiene and Tropical Medicine.
Topic of Study: - A Prospective study to determine the Hematological
abnormalities associated with taking Zidovudine (AZT) containing
antiretroviral therapy amongst adult HIV/AIDS patients- Kenya.
- 2009 - 2011 **Michael M. Kibanya (Mr.)** University of Nairobi
Topic of Study: - Combination Biomarkers for diagnosis of latent
Tuberculosis infection
- 2009 - 2011 **Peter Mwathi Mwangi (Dr.)** University of Nairobi
Topic of Study:- The utility of blood buffy coat smears in diagnosis of
mycobacterium tuberculosis.
- 2008 - 2011 **Edouard Ntagwabira (Mr.)** University of Nairobi
Topic of Study:- Detection of Human Herpes Simplex Virus in clear
cerebrospinal fluid by multiplex PCR at the National Reference Laboratory,
Kigali, Rwanda.

Masters Students (Completed- Awaiting Graduation and Ongoing)

- 2009-2012 **Munira S. A. Antar (Ms.)** University of Nairobi
Topic of Study: - Documentation of the exposure of Kenyan Residents to
Zoonotic diseases and selected other fever causing agents
- 2009-2012 **Zipporah Machuki (Ms)** University of Nairobi, Institute of Tropical
and Infectious Diseases

Topic of Study:- In vitro profiling of Mycobacterium tuberculosis region of difference 1 antigen induced cytokines production among patients with active and latent tuberculosis

- 2008-2012 **Meshack Juma (Mr)** **University of Nairobi**
Topic of Study:- Deactivation of Human Immunodeficiency virus in breast milk using copper oxide
- 2010 to date **Muendo Joseph Mutinda(Mr)** University of Nairobi, Institute of Tropical and Infectious Diseases
Topic of Study: - Serum cryptococcal antigen levels in HIV infected patients asymptomatic of meningitis in two hospitals in Nairobi, Kenya

PhD Student (Completed)

- 2002 - 2007 **Margaret Muturi (Ms.)** Department of Biochemistry, Kenyatta University
Topic of Study: - Determination of low HIV-I Specific immune responses using a Cultured enzyme linked immunospot assay (ELISPOT) in exposed Seronegative individuals.
- 2008 - 2011 **Micah Oyaro (Mr)** Department of Biological Sciences, Kenyatta University
Topic of Study: - Molecular Characterization of HIV Subtypes in Western Kenya.
- 2008 - 2011 **Sabina Wakasiaka (Mrs)** School of Pure and Applied Sciences of Kenyatta University
Topic of Study:- Gender disparities in HIV risk among seronegative female sex workers cohort, Mukuru, Nairobi, Kenya

PhD Student (Ongoing)

- 2010 to date **Nadia Musimbi Chanzu (Ms)** University of Nairobi, Institute of Tropical and Infectious Diseases
Topic of Study:- Secretor Status, *FUT2* Polymorphisms and the risk of infection by HIV Infection among female sex workers in Kenya.
- 2011 to date **Abel Onyango (Mr.)** Department of Medical Microbiology, College of Health Sciences, Kenyatta University, Kenya.
Topic of Study:- Assessing the impact of sexual activity on systemic immune activation among HIV-Exposed Seronegative female sex workers at Pumwani Clinic, Nairobi
- 2011 to date **James Isaiah Onyango Obila (Mr.)**

Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Kenya.

Topic of Study: - Impact of Depo-Provera on Female Genital Tract Immunology

2011 to date **Emily Nyariki (Ms)** School of Public Health, College of Health Sciences, University of Nairobi, Kenya
Topic of Study:- Volunteers Perceptions and Experiences of Clinical Research Participation in Kenya: Case Study of KAVI

2011 to date **Julie Ambia (Ms)** School of Public Health, College of Health Sciences, University of Nairobi, Kenya
Topic of Study: - Adherence in HIV Prevention Trials

2011 to date **Susan Odera (Ms)** Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Nairobi, Kenya
Topic of Study: - Host and bacterial genetics: The effect of human leukocyte antigens and M. tuberculosis strain variance on susceptibility to infection and disease progression to pulmonary tuberculosis among TB/HIV co-infected subjects in Kenya

2011 to date **Dr. David Githanga** Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Nairobi, Kenya
Topic of Study: - Prevalence of aflatoxin exposure in children in Makueni District

2010 to date Shem Peter Mutua Mutwiri Department of Medical Microbiology, College of Health Sciences, University of Nairobi, Nairobi, Kenya.
Topic: Effects of Maternal and Childhood protozoa and helminth infections on vaccine induced immune response to polio virus

CHAPTERS IN BOOKS

1. Manual on HIV/AIDS and Anti-Retroviral Therapy, 1997.
2. The Genesis of HIV/AIDS Vaccine Research in Africa- Manuscript in preparation

PUBLICATIONS:

1. Nagelkerke NJD, Plummer FA, Holton D, **ANZALA A.O.**, Manji F, Ngugi NE, Moses S.(1990). *Transition Dynamics of HIV Disease in a Cohort of African Prostitutes: A Markov model approach.* AIDS 1990; 4(8): 743-747
2. Moses S, Plummer FA, Ngugi EN, Nagelkerke NJD, **ANZALA A.O.**, Ndinya-Achola JO (1991). *Controlling HIV in Africa: Effectiveness and cost of an intervention in a high frequency STD transmitter core group.* AIDS 1991; 5(4): 407-11.
3. Kreiss JK, Ngugi E, Holmes K, Ndinya-Achola J, Waiyaki P, Roberts PL, Ruminjo I, Sajabi R, Kimata J, Flemming TR, **ANZALA AO**, Holton D, Plummer F. (1992) *Efficacy of nonoxnol-9 contraceptive sponge use in preventing heterosexual acquisition of HIV in Nairobi prostitutes.* J Amer Med Assoc 1992; 268(4): 477-82.

4. **ANZALA AO**, Nagelkerke NJD, Bwayo JJ, Holton D, Moses S, Ngugi EN, Ndinya-Achola JO, Plummer FA. (1995). *Rapid Progression to Disease in African Sex Workers HIV Type I Infection*. J. Infect Dis 1995; 171(3): 686-9.
5. Bwayo JJ, Nagelkerke NJD, Moses S, Embree J, Ngugi EN, Mwatha A, Kimani J, **ANZALA AO**, Choudhri S, Ndinya-Achola JO, Plummer FA. (1995) *Comparison of the declines in CD4 counts in HIV-1-seropositive female sex workers and women from the general population in Nairobi, Kenya*. J. AIDS Human Retrovirol 1995; 10:457-61.
6. Kimani J, Bwayo JJ, **ANZALA AO**, Maclean I, Mwatha A, Choudhri SH, Plummer FA, Ronald AR. *Low Dose Erythromycin Regimen for the Treatment of Chancroid*. East African Med. J. 1995; 72(10):645-8.
7. Kakai R, Bwayo JJ, Wamola IA, Ndinya-Achola JO, **ANZALA AO**, Plummer FA et al. *Breastfeeding and immunity to intestinal infections*. East Africa Med. J. 1995 Mar; 72(3): 150-4
8. Fowke KR, Nagelkerke NJD, Kimani J, Simosen JN, **ANZALA AO**, Bwayo JJ, MacDonald KS, Ngugi EN, Plummer FA. *Resistance to HIV-1 Infection Among Persistently Seronegative Prostitutes in Nairobi, Kenya*. Lancet 1996; 348: 1347-51.
9. **ANZALA AO**, Ball B, Rostron T, Smith M, O'Brien S, Plummer F, Rowland-Jones SL. *The allele of the CCR2 chemokine receptor is strongly associated with delayed disease progression in a cohort of African sex workers*. (June 1998, The Lancet).
10. Mark A Luscher, Greory Choy, Ephanta Njagi, Bwayo JJ, **ANZALA AO**, Ndinya-Achola J, Kelly MacDonald et al. *Naturally Occuring IgG Anti-HLA Alloantibody Does not Correlate with HIV Type 1 Resistance in Nairobi Prostitutes*. AIDS Research and Human Retroviruses Vol. 14, Number 2, 1998.
11. Kenneth E. Robbins, Leondios G Kostrikis, Teresa M. Brown, **ANZALA AO**, Sunny Shin, Francis A Plummer, Marcia L Kalish. *Genetic analysis of human immunodeficiency virus type 1 strains in Kenya: A comparison using phylogenetic analysis and combinational melting assay (COMA)*. AIDS Res. Human Retroviruses, 1999; 1;15(4):329-35.
12. Robbins KE, Kostrikis LG, Brown TM, **ANZALA O**, Shin S, Plummer FA, Kalish ML. *Genetic analysis of human immunodeficiency virus type 1 strains in Kenya: a comparison using phylogenetic analysis and a combinatorial melting assay*. AIDS Res Hum Retroviruses. 1999 Mar;15(4):329-35.
13. Melanie C.M., Joanne Embree, Sue G. Ramdahin, **ANZALA AO**, Simon Njenga, et al. *Effect of Human Immunodeficiency Virus (HIV) Type 1 Viral Genotype on Mother-to-Child Transmission of HIV-1*. J Infect Dis. 2000 181:746-9.
14. Murray MC, Embree JE, Ramdahin SG, **ANZALA AO**, Njenga S, Plummer FA. *Effect of human immunodeficiency virus (HIV) type 1 viral genotype on mother-to-child transmission of HIV-1*. J Infect Dis.2000 Feb;181(2):746-9.
15. **ANZALA AO**, Simonsen JN, Kimani J, Ball TB, Nagelkerke NJ, Rutherford J, Ngugi EN, Bwayo JJ, Plummer FA. *Acute sexually transmitted infections increase human immunodeficiency virus type*

- 1 plasma viremia, increase plasma type 2 cytokines, and decrease CD4 cell counts.* J Infect Dis. 2000 Aug;182(2):459-66.Epub2000 Jul 12.
16. Trivedi HN, Plummer FA, **ANZALA AO**, Njagi E, Bwayo JJ, Ngugi EN, Embree JE, Hayglass KT. *Resistance to HIV-1 infection among African sex workers is associated with global hypo responsiveness in interleukin 4 production.* FASEB J. 2001 Aug; 15(10):1795-7.
 17. WHO-UNAIDS consultation 13-15 March 2001. *Scientific considerations for the regulation and clinical evaluation of HIV/AIDS preventive vaccines.* AIDS 2002, 16: W15- W25
 18. *WHO-UNAIDS Guidelines for Standard HIV Isolation and Characterization Procedures* (second Edition, 2002).
 19. Fang G, Weiser B, Kuken C, Philpott SM, Rowland-Jones S, Plummer F, Kimani J, Shi B, Kaul R, Bwayo J, **ANZALA O**, Burger H. *Recombination following superinfection by HIV-1.* AIDS.2004 Jan 23;18(2):153-9.
 20. Fangg, Kuiken C, Weiser B, Rowland-Jones S, Plummer F, Chen CH, Kaul R, **ANZALA AO**, Bwayo JJ, Kimani J, Philpott SM, Kitchen C, Sinsheimer JS, Gaschen B, Lang D, Shi B, Kemal KS, Rostron T, Brunner C, Beddows S, Sattenau Q, Paxinos E, Oyugi J, Burger H. *Long-term survivors in Nairobi: complete HIV-1 RNA sequences and immunogenetic associations.* J Infect Dis. 2004 Aug 15; 190(4):697-701. Epub 2004 Jul 13.
 21. Shi B, Philpott SM, Weiser B, Kuiken , Brunner c, Fang G, Fowke KR, Plummer FA, Rowland-Jones S, Bwayo J, **ANZALA AO**, Kimani J, Kaul R, Burger H. *Construction of an infectious HIV type 1 molecular clone from an African patient with a subtype D/C Recombinant Virus.* AIDS Res Hum Retroviruses. 2004 Sep; 20(9):1015-8.
 22. Koesters SA, Matu L, Kiama P, **ANZALA O**, Embree J, Plummer FA, Kimani J, Fowke KR. *Elevation of immune activation in Kenyan women is associated with alterations in immune function: implications for vaccine development.* J Clin Immunol. 2004 Nov; 24(6):702-9.
 23. Schroeder TL, Burger H, Weiser B, Bengualid V, Kimani J, **ANZALA AO**, Parker MM, Lamson D, Philpott SM. *Characterization of intersubtype recombinant HIV type 1 genomes using a nonradioactive heteroduplex tracking assay.* AIDS Res Hum Retroviruses, 2005 April; 21(4):314-8.
 24. Maecker HT, Rinfret A, D'Souza P, Darden J, Roig E, Landry C, Hayes P, Birungi J, **ANZALA O**, Garcia M, Harari A, Frank I, Baydo R, Baker M, Holbrook J, Ottinger J, Lamoreaux L, Epling CL, Sinclair E, Suni MA, Punt K, Calarota S, El-Bahi S, Alter G, Maila H, Kuta E, Cox J, Gray C, Altfeld M, Nougarede N, Boyer J, Tussey L, Tobery T, Bredt B, Roederer M, Koup R, Maino VC, Weinhold K, Pantaleo G, Gilmour J, Horton H, Sekaly RP. *Standardization of cytokine flow cytometry assays.* BMC Immunol. 2005 Jun 24; 6:13
 25. Karuru JW, Lule GN, Joshi M, **ANZALA O**. *Prevalence of HCV and HIV/HCV co-infection among volunteer blood donors and VCT clients.* East Afr Med J. 2005 Apr;82(4): 166-9
 26. Karuru JW, Lule GN, Joshi M, **ANZALA O**. *Prevalence of HCV and HIV/HCV co-infection among in-patients at the Kenyatta National Hospital.* East Afr Med J. 2005 Apr; 82(4): 170-2.

27. Koesters SA, Alimonti JB, Wachih C, Matu L, **ANZALA OA**, Kimani J, Embree JE, Plummer FA, Fowke KR. *IL-7 α expression on DC4+ T lymphocytes decreases with HIV disease progression and inversely correlates with immune activation.* Eur J Immunol. 2006 Feb; 36(2):336-44.
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29. Surender K, James N, Susan P, Bonnie M, Michael PB, George N, Phillipe N, Susan ZP, Suman L, Joseph M, Elwyn C, Eric H, Susan A, James M, Indira H, Sherwin L, Shixing T, Elliot C, Chris B, Marcus A, Xu GY, Anatole T, Ousmane K, Anatoli K, Nga N, Barney SG, Deborah T, Peter M, **ANZALA AO**, Eduard S, Nzeera K, Patricia F & Hana G (2006) *Novel Approach for Differential Diagnosis of HIV Infections in the Face of Vaccine-Generated Antibodies: Utility for Detection of Diverse HIV-1 Subtypes.* Journal of Acquired Immuno Defecency Syndrome. Vol. 43, Number 3, 2006.
30. Lyle RM, Blake BT, Wachih C, Paul JM, Jillian LMW, Xiaojuan M, Sue R, **ANZALA OA**, Kamene J, Ma Luo, Keith RF & Francis AP(2007) *Epitope Cross-Reactivity Frequently Differs between Central and Effector Memory HIV-Specific CD8⁺ T Cells:* Journal Immunology 2007 Mar 15; 178(6): 3750-6.
31. Karita E, Price M, Hunter E, Chomba E, Allen S, Fei L, Kamali A, Sanders EJ, **ANZALA AO**, Katende M, Ketter; the IAVI Collaborative Seroprevalence and Incidence Study Team (2007) *Investigating the utility of the HIV-1 BED capture enzyme immunoassay using cross-sectional and longitudinal seroconverter specimens for Africa;* AIDS.2007 Feb 19;21(4):403-8.
32. McKinnon LR, Ball TB, Wachih C, McLaren PJ, Waruk JL, Mao X, Ramdahin S, **ANZALA AO**, Kamene J, Luo M, Fowke KR, Plummer FA. *Epitope cross-reactivity frequently differs between central and effector memory HIV-specific CD8⁺ T cells.* J Immunol. 2007 Mar 15;178(6):3750-6.PMID: 17339473 [PubMed - indexed for MEDLINE]
33. Gitura B, Joshi MD, Lule GN, **ANZALA O**. *Total lymphocyte count as a surrogate marker for CD4+ t cell count in initiating antiretroviral therapy at Kenyatta National Hospital, Nairobi.* East Afr Med J. 2007 Oct;84(10):466-72. PMID: 18232267 [PubMed - indexed for MEDLINE]
34. Stevens W, Kamali A, Karita E, **ANZALA O**, Sanders EJ, Jaoko W, Kaleebu P, Mulenga J, Dally L, Fast P, Gilmour J, Farah B, Birungi J, Hughes P, Manigart O, Stevens G, Yates S, Thomson H, von Lieven A, Krebs M, Price MA, Stoll-Johnson L, Ketter N. *Baseline morbidity in 2,990 adult African volunteers recruited to characterize laboratory reference intervals for future HIV vaccine clinical trials.* PLoS ONE. 2008 Apr 30;3(4):e2043. PMID: 18446196 [PubMed - indexed for MEDLINE]
35. Jaoko W, Nakwagala FN, **ANZALA O**, Manyonyi GO, Birungi J, Nanvubya A, Bashir F, Bhatt K, Ogutu H, Wakasiaka S, Matu L, Waruingi W, Odada J, Oyaro M, Indangasi J, Ndinya-Achola J, Konde C, Mugisha E, Fast P, Schmidt C, Gilmour J, Tarragona T, Smith C, Barin B, Dally L, Johnson B, Muluubya A, Nielsen L, Hayes P, Boaz M, Hughes P, Hanke T, McMichael A,

- Bwayo J, Kaleebu P. *Safety and immunogenicity of recombinant low-dosage HIV-1 A vaccine candidates vectored by plasmid pTHr DNA or modified vaccinia virus Ankara (MVA) in humans in East Africa.* Vaccine 2008 May 23;26(22):2788-95. Epub 2008 Mar 31.PMID: 18440674 [PubMed - indexed for MEDLINE]
36. Luscher MA, Choy G, Njagi E, Bwayo JJ, **ANZALA AO**, Ndinya-Achola JO, Ball TB, Wade JA, Plummer FA, Barber BH, MacDonald KS. (2008) *Naturally occurring IgG anti-HLA alloantibody does not correlate with HIV type 1 resistance in Nairobi prostitutes.* PMID: 9462920 (PubMed - indexed for MEDLINE)
37. **ANZALA O**, Sanders E J, Kamali A, Katende M, Mutua G, Ruzagira E, Stevens G, Simek M, Price M (2008) *The sensitivity and specificity of HIV rapid tests used for research voluntary testing and counseling at four sites in East Africa.* East Afr Med J, Vol.85 No. 10 Oct.2008.
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1. Transmission dynamics between men having sex with men and heterosexual HIV-1 epidemics in Kenya. Daniela Bezemer¹, Nuno Rodrigues Faria², Amin Hassan³, Raph L. Hamers⁴, Gaudensia Mutua⁵, Omu Anzala⁵, Kishor Mandaliya⁶, Patricia Cane⁷, James A. Berkley^{3,8}, Tobias F Rinke de Wit⁴, Carole Wallis⁹, Susan M. Graham^{3,10}, Matthew A Price^{11,12}, Roel A. Coutinho¹³, Eduard J Sanders^{3,8} (AIDS).
2. "HLA-B*57 versus HLA-B*81 in HIV-1 Infection: Slow and Steady Wins the Race?" by Heather Prentice, Travis Porter, Matthew Price, Emmanuel Cormier, Dongning He, Paul Farmer, Anatoli Kamali, Etienne Karita, Shabir Lakhi, Eduard Sanders, **Omu Anzala**, Pauli Amornkul, Susan Allen, Eric Hunter, Richard Kaslow, Jill Gilmour, and Jianming Tang. (Pathogenesis and Immunity).

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