

ANDREW OBUKU EKII POSITION TITLE: Senior Lecturer-Biology (2025 to date)

Qualifications

Makerere University, Kampala, Uganda	PhD 2011-2017	Immunology/Virology
London School of Hygiene and Tropical Medicine	Certificate 2012	Advanced Immunology
Makerere University, Kampala, Uganda	MSc 2006-2010	Immunology/Virology
Mbarara University of Science and Technology	BSc with Educ 2002-2006	Biology/Chemistry

Positions and Honors

Appointments and Positions

2024-to-date	Research Fellow London School of Hygiene and Tropical Medicine 2024-to date Member School of Biomedical Research and Ethics Committee 2023-to-date
	Scientist, Joint Clinical Research Centre, Uganda.
2018-2025	Scientist, MRC/UVRI and LSHTM Uganda Research Unit.
2019- 2020	Research Scholar, Center for Systems Immunology, Case Western Reserve University, USA (Mentor: Prof. Rafick Sekaly).
2016-2018	Post-doctoral Scientist, MRC/UVRI and LSHTM Uganda Research Unit.
2013	Visiting scientist, Le Centre hospitalier universitaire Vaudois, Lausanne University Teaching Hospital (Mentor: Prof. Pantaleo Giuseppe).
2013	Visiting scientist Duke University, Durham, USA (Mentor: Prof. Guido Ferrari).
2013-2016	Scientist A with MRC/UVRI, Uganda Research Unit in AIDS and PhD student.
2010-2013	Scientist B with MRC/UVRI, Uganda Research Unit in AIDS and PhD student.
2010	Head Molecular diagnostics section, National Tuberculosis Reference Laboratory (Uganda).

Vaccine development consultancy

2021 to date: Design and delivery of SARS COV-2 GP immunogen using New Adenovirus Vector (NAVCOV). Funded by the Government of Uganda (PRESIDE). PI. Dr. Sheila Balinda.

Scientific leadership training: IAVI ADVANCE Scientific leadership programme cohort one (2020 to 2022).

Grants, fellowships and awards

- 2024:** Advancing Vaccine Development: Harnessing Multiple Antigenic Epitopes for Crimean-Congo Hemorrhagic Fever in Humans and Animals, Amount £1,979,98 Role: Co-Investigator. Funder Innovate UK P.I Dr. Balinda Sheila
- 2024:** Deciphering host genetics and viral determinants of MPOX epidemiology in the Democratic Republic of Congo Amount: 1,260,000 Euros Role: Co-Investigator. Funder European and Developing Countries Clinical Trials Partnership Joint Undertaking (EDCTP-3). P.I Dr. Wayengera Misaki.
- 2024:** Building HIV pseudovirus panels to evaluate monoclonal antibody cocktails for use in antibody mediated protection among infants and toddlers **Amount** 75,000 USD Role: Principal Investigator. Funder USAID through International AIDS Vaccine Initiative, New York, USA.
- 2023:** Effect of stress hormones on the reactivation of HIV Reservoir. Amount **50,000** USD Role: Principal Investigator. Funder: RUSTBELT CENTRE FOR AIDS RESEARCH/NIH. Case Western University and University of Pittsburg, in collaboration with Joint Clinical Research Centre (JCRC).
- 2023:** Proposal to address the medium- to long-term EBOLA associated psychological Distress and psychosocial problems in Mubende District in central Uganda (Ebola+D Project). Amount **1,700,000.00 GBP** for 18 months Role: Coinvestigator. P.I Prof. Eugene Kinyanda. Funder- United Kingdom Research and Innovation (UKRI).
- 2023:** SOLIDARITY Against Ebola/Tokomeza Ebola Vaccine Trial. A phase I/II Randomized Placebo controlled double blind trial to evaluate the Safety and Immunogenicity of Sudan ebolavirus vaccines in Uganda. Amount **15,300,000** USD for 36 months. Role: Coinvestigator and co-lead for Immunogenicity and laboratory safety working group. P.I Associate Prof. Bruce Kirenga. Funder- World Health Organization (WHO).
- 2023:** A protocol to collect and store samples and to generate reagents for diagnostic, immunological assays and therapeutics from disease outbreaks and or clinical trials in Uganda and or East Africa.
- 2022:** A clinical trial to assess the safety and immunogenicity of a modified self- amplifying ribonucleic acid (saRNA) vaccine encoding the S glycoprotein of SARS-CoV-2, the causative agent of COVID-19, in SARS-CoV-2 seronegative and seropositive Ugandan population. Role: Coinvestigator and lead transcriptomics and polychromatic flow cytometry analysis. P.I Prof. Robin Shattock Funder- UKRI.
- 2022:** CEPI centralized laboratory for end point immunogenicity assays for Marburg and Ebola Sudan. Funder: The Coalition for Epidemic Preparedness Innovations. Role: Co-applicant and assay lead for cytometry.
- 2019:** "An open-label, single arm study to provide additional information on immunogenicity and safety of Ad26.ZEBOV/MVA-BN®-Filo". Role: Co-Investigator and assay lead for evaluation of Ebola Zaire specific T cell responses and cross reactivity. Funder CEPI.

2019 to 2023: Association of early immune responses with virological control in acute /early and following HIV-1 infection. Amount **EURO 150,000** Role: Principal Investigator. Funder: European and Developing Countries Clinical Trials Partnership (EDCTP).

2022: A study to evaluate the feasibility of identifying, enrolling and following acute HIV-1 infection. Amount **US \$30,000** Role: Principal Investigator. Funder USAID through International AIDS Vaccine Initiative, New York, USA.

2020-2021: A study to evaluate the feasibility of identifying, enrolling and following acute HIV-1 infection. Amount **US \$220,000** Role: Principal Investigator. Funder USAID through International AIDS Vaccine Initiative, New York, USA.

2019-2020. A study to evaluate the feasibility of identifying, enrolling and following acute HIV-1 infection. Amount **US \$220,000** Role: Principal Investigator. Funder USAID through International AIDS Vaccine Initiative, New York, USA.

2019-2019. A study to evaluate the feasibility of identifying, enrolling and following a high-risk cohort with acute and early HIV-1 infection. Amount **US \$97,300** Role: Principal Investigator. Funder USAID through International AIDS Vaccine Initiative, New York, USA.

2018-2020. Association of *S. mansoni* infection with rate of progression to AIDS. Amount **£39,326.05** Role: Post-doctoral fellowship funded by MRC/UKRI and DFID.

2017-2018. Effect of *S. mansoni* infection on HIV specific T cell responses- Amount **£15,000** Role: Post-doctoral fellowship funded by MRC/UKRI and DFID.

2012-2013. Effect of *S. mansoni* infection on HIV specific ADCC responses - MRC Centenary award- Amount **£15,000** Fellowship funded by MRC/UVRI & LSHTM Uganda Research Unit.

2013. Effect of *S. mansoni* infection on phosphorylation of Akt in HIV/*S. mansoni* coinfecting individuals Amount **US \$2,000** Funder; World federation of Science, Geneva, Switzerland.

Some technical competencies: Assay development, qualification, validation, reagent production and technology transfer for ELISA, Luminex, MSD, neutralizing and ADCC antibody, ELISPOT, flow cytometry assays and rVSV backbone pseudovirus for SARS COV2 and Ebola Sudan generation. Others include NGS sequencing, gene knock out using homologous recombination in diploid organisms and bioinformatics analysis.

Teaching experience:

- Designed and taught a short course in HIV Immunology 8th to 12th July 2019 supported by East Africa Consortium for Clinical Research 2- HIV node.
- Taught at the Master of Science Immunology and Clinical Microbiology course, Makerere University, College of Health Sciences, School of Biomedical Sciences, Department of Microbiology (August 2011- date).
- Lead reviewer Vaccinology and Immunotherapy module for MSc Immunology and Clinical Microbiology course in Makerere University (April 2012).

Professional Affiliation

2009 to date: Member of the South African society of Immunology.
 2018 to date: Member of the International Society for the Advancement of Cytometry (ISAC).

List of selected publications.

Andrew Ekii Obuku, Jacqueline Kyosiimire Lugenwa, Andrew Abaasa, Moses Joloba, Song Ding, Justin Pollara, Guido Ferrari, Alexandre Harari, Giuseppe Pantaleo, and Pontiano Kaleebu. HIV specific Th1 responses are altered in Ugandans with Schistosoma Mansoni coinfection BMC Immunology. 2023 Aug 29;24(1): 25.doi: 10.1186/s12865-02300554-3.

Obuku AE, Asiki G, Abaasa A, Ssonko I, Harari A, van Dam GJ, Corstjens PL, Joloba M, Ding S, Mpendo J, Nielsen L, Kamali A, Elliott AM, Pantaleo G, Kaleebu P, Pala P (2016). Effect of Schistosoma mansoni Infection on Innate and HIV1-Specific T-Cell Immune Responses in HIV-1-Infected Ugandan Fisher Folk. AIDS Res Hum Retroviruses. Jul; 32(7): 668-75.

Obuku AE, Bugembe DL, Musinguzi K, Watera C, Serwanga J, Ndembu N, Levin J, Kaleebu P, Pala P. Macrophage Inflammatory Protein-1 Beta and Interferon Gamma Responses in Ugandans with HIV-1 Acute/Early Infections (2016). AIDS Res Hum Retroviruses. Mar; 32(3): 237-46

Andrew Ekii Obuku, Anjellina Rukundo, Matthew Odong, Ben Gombe, Zahara Nakitto, Robert Balderas and Pontiano Kaleebu. Forty colour full spectrum flow cytometry panel for the deep immunophenotyping of human T cells in peripheral blood mononuclear cells. **Cytometry A**.