

BIOGRAPHICAL SKETCH**NAME:** David Kalenzi Atuhaire**EMAIL ADDRESS:** david.atuhaire@mak.ac.ug or kalenzid@gmail.com**POSITION TITLE:** Lecturer**EDUCATION/TRAINING:**

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Makerere University Kampala (Uganda)	BVM	10/2006	Veterinary Medicine
Makerere University Kampala (Uganda)	MSc	06/2011	Molecular Biology (Distinction)
Makerere University Kampala (Uganda)	PhD	03/2014	Molecular epidemiology
Centre for Ticks and Tick-Borne Diseases (Malawi)	Post Doc	12/2018	Vaccinology and Parasitology
Onderstepoort Biological Products (South Africa)	N/A	09/2022	Heartwater Vaccine Production

A. Personal Statement:

David is a Veterinarian and Senior Research Scientist with over 17 years of experience in the livestock sector, academia and industry eight of which were at managerial level and Postdoctorate with a Vaccine production facility in Lilongwe, Malawi. After qualifying as a Vet in 2006, I joined the Molecular Biology Laboratory at the College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB), Makerere University, as a research assistant where I worked on molecular diagnostics of the major tick-borne diseases of cattle in Uganda for five years. While there I qualified with a Master's degree in Molecular Biology. In 2007, I joined Kampala International University (KIU), Medical School as a Lecturer of Immunology, Microbiology and Molecular Biology until 2014. In addition, I was a researcher with the National Agricultural Research Organisation in Uganda for two years. In 2011, I enrolled for a PhD at Makerere University and completed in March 2014 where I worked on the Molecular Epidemiology of African Swine Fever a devastating disease to the pig industry in Uganda. In June 2014, I joined the African Union Centre for Ticks and Tick-Borne Diseases (CTTBD) in Lilongwe, Malawi as a post-doctoral fellow and later as the Research and Development Scientist where I worked on various research activities on the East Coast Fever vaccine improvement programme. In the same period, I was the Research and Development manager and a member of the Senior management team. I was also a visiting Senior Lecturer of Epidemiology and Microbiology at Lilongwe University of Agriculture and Natural Sciences. In August 2014, I was appointed Lecturer at Makerere University, COVAB, Department of Biomolecular Resources & Biolab Sciences, a position I held until March 2015. In June 2018, I was appointed the Director of Postgraduate Studies and Research and Senior Lecturer in the Microbiology Department at KIU, Western Campus, Uganda, a position I held for two years. I was the Quality Control Manager and the Research & Development Scientist at the CTTBD, Malawi. I am currently a Lecturer in the Department of Biotechnical and Diagnostic Sciences at COVAB, Makerere University. I am also a Senior Scientist responsible for Vaccine Production on the Makerere University Anti-Tick Vaccine Project. I am also a member of the Regional East Coast

Fever Vaccine Taskforce. I have several publications and I was a research grants reviewer and an External Examiner for Makerere University as well as a peer reviewer of several international journals.

B. Positions and Honors:

1. **Lecturer**, Department of Biotechnical and Diagnostic Sciences, College of Veterinary Medicine Animal Resources and Biosecurity, Makerere University, August 2023 to date.
2. **Senior Scientist and Head Vaccine Production**, Makerere University anti-tick vaccine production Initiative project, October 2022 to date.
3. **Quality Control Manager**, Centre for Ticks and Tick-Borne Diseases, Lilongwe, Malawi, January 2018 to September 2022.
4. **Research and Development Scientist**, Centre for Ticks and Tick-Borne Diseases, Lilongwe, Malawi, January 2021 to September 2022.
5. **Research and Development Manager**, Centre for Ticks and Tick-Borne Diseases, Lilongwe, Malawi, June 2014 to December 2017.
6. **Director Postgraduate Studies and Research**, Kampala International University, June 2019 to April 2021.
7. **Senior Lecturer** Department of Microbiology and Immunology, Kampala International University, June 2019 to April 2021.
8. **Senior Lecturer** of Microbiology and Veterinary Epidemiology, Lilongwe University of Agriculture and Natural Resources, September 2016 to June 2019.
9. **Lecturer**, Department of Biomolecular and Biolab Sciences, Makerere University, August 2014 to March 2015
10. **Animal Health Research Officer**, National Agricultural Research Organisation, Tororo, Uganda, April 2012 to September 2014.
11. **PhD Research fellow**, MSI research grant, Makerere University, Kampala, August 2011 to March 2014.
12. **Lecturer** of Microbiology and Immunology, Kampala International University, August 2007 to May 2014.
13. **Research Assistant**, Molecular Biology Laboratory, College of Veterinary Medicine, Makerere University, November 2006 to October 2010.

C. Membership

1. Uganda Veterinary Association (UVA)
2. Registered by Uganda Veterinary Board (UVB)
3. Member of the Makerere University IBC (Institutional Biosafety Committee)

D. Contributions to Science

1. Muleya W, **Atuhaire DK**, Mupila Z, Mbao V, Mayembe P, Kalenga S, Fandamu P, Namangala B, Salt J, Musoke AJ. Sequence Diversity of Tp1 and Tp2 Antigens and Population Genetic Analysis of *Theileria parva* in Unvaccinated Cattle in Zambia's Chongwe and Chisamba Districts. *Pathogens*. 2022; 11(2):114. <https://doi.org/10.3390/pathogens11020114>.
2. **Atuhaire DK**, Muleya W, Mbao V, Niyongabo J, Nyabongo L, Nsanganikumwami D, et al. (2021) Molecular characterization and population genetics of *Theileria parva* in Burundi's unvaccinated cattle: Towards the introduction of East Coast fever vaccine. *PLoS ONE* 16(5): e0251500. <https://doi.org/10.1371/journal.pone.0251500>.
3. **David Kalenzi Atuhaire**, Daniel Lieberman, Tanguy Marcotty, Antony Jim Musoke, Damian Madan. An alternative cold chain for storing and transporting East Coast fever vaccine. *Veterinary Parasitology*, Volume 288, December 2020, 109304. <https://doi.org/10.1016/j.vetpar.2020.109304>.
4. **David Kalenzi Atuhaire**, Walter Muleya, Victor Mbao, Thomas Bazarusanga, Isidore Gafarasi, Jeremy Salt, Boniface Namangala and Antony Jim Musoke. Sequence diversity of cytotoxic T cell antigens and satellite marker analysis of *Theileria parva* informs the immunization against East Coast fever in Rwanda. *Parasites & Vectors* 2020 13:452 <https://doi.org/10.1186/s13071-020-04322-9>.
5. **David K. Atuhaire**, Sylvester Ochwo, Mathias Afayoa, Frank N. Mwiine, Kokas Ikwap, Eugene Arinaitwe, A.R Ademun-Okurut, Julius B. Okuni, Ann Nanteza, Chrisostom Ayebazibwe, Loyce Okedi, William Olaho-Mukani,

- Lonzy Ojok. Epidemiological overview of African swine fever in Uganda (2001-2012). *Journal of Veterinary Medicine*, 2013, <http://dx.doi.org/10.1155/2013/949638>.
6. **David K. Atuhaire***, Mathias Afayoa, Sylvester Ochwo, Savannah Mwesigwa, Julius B. Okuni, William Olaho-Mukani, Lonzy Ojok. Molecular characterization and phylogenetic study of African swine fever virus isolates from recent outbreaks in Uganda (2010-2013). *Virology Journal* 2013, doi: 10.1186/1743-422X-10-247.
 7. **K.D. Atuhaire**, K. Ikwap, S. Eyanu, F. N. Mwiine*, M. Ocaido, W. Olaho-Mukani, M.K. Saimo, G.W. Lubega. Comparison of Reverse Line Blot and β -tubulin targeted nested PCR techniques in the detection of *Theileria* and *Babesia* piroplasms in cattle in Uganda. (2013). *Journal of Veterinary Medicine and Animal Health*, Vol. 5(1), pp. 27-31, January, 2013.
 8. **David K. Atuhaire**, M Afayoa, F. N. Mwiine*, S Ochwo, Julius B. Okuni, W. Olaho-Mukani, Lonzy Ojok. Prevalence of African swine fever virus in apparently healthy domestic pigs in Uganda *BMC Veterinary Research* 2013, 9:263, doi: 10.1186/1746-6148-9-263.
 9. Julius Boniface Okuni, Tony Oyo, Magid Kisseka, Silvester Ochwo, **David Kalenzi Atuhaire**, Mathias Afayoa and Lonzy Ojok. Detection of antibodies and confirmation of *Mycobacterium avium* subspecies *paratuberculosis* using nested PCR in bulk milk samples from Nakasongola and Sembabule districts, Uganda. Hindawi Publishing Corporation, ISRN Veterinary Science, Volume 2013, Article ID 369730, 5 pages <http://dx.doi.org/10.1155/2013/369730>.
 10. **David K. Atuhaire***, M Afayoa, S Ochwo, S Mwesigwa, Frank N. Mwiine, Julius B. Okuni, W Olaho-Mukani, Lonzy Ojok. Molecular characterization of African swine fever virus detected in apparently healthy domestic pigs in Uganda. *African Journal of Biotechnology*, Vol. 13(25), pp.2491-2499, 18 June, 2014, DOI:10.5897/AJB2014.13872.
 11. **David K. Atuhaire***, M Afayoa, S Ochwo, D Katiti, Frank N. Mwiine, Ann Nanteza, Claire M. Mugasa, E Matovu, Julius B. Okuni, W Olaho-Mukani, Lonzy Ojok. Comparative detection of African swine fever virus by Loop-mediated isothermal amplification assay and polymerase chain reaction in domestic pigs in Uganda. *African Journal of Microbiology Research*, Vol. 8(23), pp.2322-2328, 4 June, 2014, DOI: 10.5897/AJMR2014.6848.
 12. Olal S*, **Atuhaire K.D.**, * Ochwo S., Kiiza L., Kangire A., Musoli P., Olaho-Mukani W., Lubega G.W., Hakiza G.J. Immunodiagnostic potential of a 27kDa protein of *Fusarium xylarioides*, the cause of Coffee Wilt Disease in Robusta coffee in Uganda. *African Journal of Biotechnology*, Vol. 13(29), pp.2922-2929, 16 July, 2014, DOI: 10.5897/AJB2013.13451.
 13. Andrew Wedulo, **David Kalenzi Atuhaire***, Sylvester Ochwo, Vicent Muwanika, John Julian Rwendeire, Jesca Lukanga Nakavuma. Characterisation and evaluation of the efficiency of petroleum degrading bacteria isolated from soils around the oil exploration areas in western Uganda. *African Journal of Biotechnology*, Vol. 13(48), pp. 4458-4470, 26 November, 2014, DOI: 10.5897/AJB2014.13888.
 14. Afayoa Mathias, **David Kalenzi Atuhaire**, Sylvester Ochwo, Julius Okuni, Kisseka Majid, Frank Nobert Mwiine, William Olaho-Mukani, Lonzy Ojok. Comparison of immunoperoxidase monolayer assay, polymerase chain reaction and haemadsorption tests in the detection of African swine fever virus in cell cultures using Ugandan isolates. *Journal of General and Molecular Virology* 11/2014; 6(4):36-45. DOI: 10.5897/JGMV2014.0062.
 15. Afayoa M, Olaho-Mukani W, Okuni JB, **Atuhaire DK**, Ochwo S, Majid JK and Ojok L. Development and Evaluation of an Antigen Capture Enzyme-Linked Immunosorbent Assay (AC-ELISA) for the Diagnosis of African Swine fever. *Virology & Mycology Virol-mycol* 2015, 4:3 <http://dx.doi.org/10.4172/2161-0517.1000145>.
 16. Hussein Kafeero Mukasa*, Frank Norbert Mwiine, **David Kalenzi Atuhaire**, Sylvester Ochwo, Ann Nanteza "Comparative detection of foot-and-mouth disease virus by reverse transcription loop-mediated isothermal amplification assay and real time polymerase chain reaction in Uganda". *International Journal of Biotechnology and Food Science*, Vol. 4(2), pp. 22-33, March 2016 ISSN: 2384-7344.
 17. Hussein Kafeero Mukasa, Frank Norbert Mwiine, **David Kalenzi Atuhaire**, Sylvester Ochwo & Ann Nanteza "Comparative Detection of Foot-and-Mouth Disease Virus by the two Commonly used Assays of NSP ELISA and RT-PCR in Uganda with Quantitative Real Time RT-PCR on Field Samples". *Global Journal of Medical Research (G)* vol. XVI, issue II, version I, 2016.
 18. Afayoa M*, **Atuhaire D K**, Ochwo S, Okuni J B, Kisekka M, Olaho-Mukani W, Ojok Lonzy Haematological, biochemical and clinical changes in domestic pigs experimentally infected with African swine fever virus isolates from Uganda. *Bull. Anim. Hlth. Prod. Afr.*, (2014), 62, 07-22.
 19. Sylvester Ochwo, **David Kalenzi Atuhaire**, Mathias Afayoa, Majid Kisseka, Phillip Kimuda Magambo, Julius Boniface Okuni, William Olaho-Mukani, Lonzy Ojok. Serodiagnostic potential of synthetic peptides derived from African swine fever virus putative protein pCP312R. doi: <https://doi.org/10.1101/512772>.
 20. Sylvester Ochwo, Kimberly VanderWaal, Christian Ndekezi, Joseph Nkamwesiga, Anna Munsey, Sarah Gift Witto, Noelina Nantima, Franklin Mayanja, Anna Rose Ademun Okurut, **David Kalenzi Atuhaire** & Frank

Norbert Mwiine. Molecular detection and phylogenetic analysis of lumpy skin disease virus from outbreaks in Uganda, 2017–2018. *BMC Vet Res* 16, 66 (2020). <https://doi.org/10.1186/s12917-020-02288-5>.

E. Other Publications

1. **David Kalenzi Atuhaire** (2014). “Epidemiology and molecular characterization of African swine fever virus in domestic pigs in Uganda” (**PhD Thesis**), Makerere University, Kampala, Uganda.
2. **David Kalenzi Atuhaire** (2010). “Comparison of Reverse Line Blot and β -tubulin targeted nested PCR techniques in the detection of *Theileria* and *Babesia* piroplasms in cattle in Uganda” (**MSc Dissertation**), Makerere University, Kampala, Uganda.
3. **David Kalenzi Atuhaire** (2006). “Pathological liver lesions of cattle slaughtered in Kampala City Council abattoir” (**BVM Dissertation**), Makerere University, Kampala, Uganda.
4. Walter Muleya, Zacharia Mupila, **David Kalenzi**, Boniface Namangala, Antony Musoke. “Characterization of *Theileria parva* in Zambia”. Abstract presented at a workshop on genetic characterization of *Theileria parva* strains, January 19-20, 2017, Nairobi Kenya.
5. Walter Muleya, **David Kalenzi**, Thomas Bazarusanga, Zacharia Mupila, Antony Musoke. “Progress on the characterization of Rwanda *Theileria parva* isolates”. Abstract presented at a workshop on genetic characterization of *Theileria parva* strains, January 19-20, 2017, Nairobi Kenya.

F. Additional Information: Research Support and/or Scholastic Performance:

1. **Principal Investigator** on the Application of Arestat™ advanced formulation technology to a live East Coast Fever Vaccine (ECF-ITM) project funded by the Global Alliance for Livestock Veterinary Medicines (GALVmed), UK.
2. **Principal Investigator** on the Vaccine Diluent Improvement for ECF-ITM sponsored by the Agri-Tech Catalyst, UK.
3. **Lead Scientist** on the ECF-ITM vaccine product and process improvement sponsored by GALVmed, UK.
4. **Principal Investigator** in the Evaluation of ECF risk in regions beyond currently covered regions, through epidemiological (and market) studies sponsored by GALVmed, UK.
5. **Principal Investigator** on the Cold Option 2 (CO2) an alternative to liquid nitrogen for livestock cryo chain (Proof of concept) project sponsored by the Global Good Intellectual Ventures , USA.
6. **Team Member** on ECF Cross Immunity trials in DRC and Rwanda sponsored by GALVmed, UK.
7. **Team member** on the ECF-ITM Muguga cocktail vaccine field trials in Uganda, Kenya and Tanzania sponsored by GALVmed, UK.
8. **Principal Investigator** on the Cold Option 2 (CO2) an alternative to liquid nitrogen for livestock cryo Chain-Alban Dewar study sponsored by Global Health Labs, USA.
9. **Co-investigator** on the Evaluating PBS as a diluent for the Muguga Cocktail Vaccine under field conditions in Uganda sponsored by GALVmed, UK.
10. Previously an **External Reviewer** of Research grants (RIF) and an **External Examiner** for Makerere University, Uganda.
11. Currently an **Internal Reviewer** for the Makerere University Research and Innovations Fund

CERTIFICATION:

I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describes me, my qualifications, and my experience.



David Kalenzi Atuhaire, (BVM, MSc., Ph.D.)

Date: 27th November 2023

Tel: +256775595889 and +256705272787