

CURRICULUM VITAE

MULINGE M Martin, PhD (UCL – Belgium), MSc (KUL – Belgium), BSc (Kenya)

PERSONAL INFORMATION:

Name: DR. MARTIN M. MULINGE
Permanent Home address: P.O Box 67979 – 00200 NAIROBI - KENYA
Telephone: +254-703-445664
Date of birth: 10-05-1978
E-mail: mmulinge@uonbi.ac.ke or mmulinge@outlook.com
Language: English
Marital status: Married

Career Objective: To carry out research geared towards improvement of human health and secondly, passing on the knowledge acquired to future scientists through teaching.

Academic Awards:

- 1 Fonds National de Recherche (FNR) PhD grant -Luxembourg Govt
- 2 Vlaamse Interuniversitaire Raad (VLIR) Masters Scholarship – Belgium
- 3 Partnership in Health Research Training (P-HERT) fellowship grant - Kenya

EMPLOYMENT HISTORY:

Current Employer:

University of Nairobi
Department of Biochemistry, College of Health Sciences
Date: Jan 2016 – To date
Position: Lecturer
Duties:

- ① University Teaching, Research and Supervision. Currently I teach Biochemistry and molecular biology to students taking BSc Biochemistry and BSc Medical Laboratory Science and Technology, supervision of practicals and supervision of Masters research projects
- ② Lectures to MMed students registered in the school of medicine for Biochemistry & Molecular Biology courses

Previous Employer:

South Eastern Kenya University – Main Campus
Date: Jan 2014 – Dec 2015
Position held: Lecturer and Head of Biochemistry department
Duties:

- ① University Teaching, Research and Supervision
- ② Academic and administrative head of biochemistry department.

Previous Employer:

Dept of Infection and Immunity, Luxembourg Institute of Health, Luxembourg
Dates: Jan 2009-Jun 2013
position held: PhD Student
Duties: Planning, design and execution of a PhD project on the impact of the HIV Env on tropism determination and on infectivity of primary CD4⁺ T cells and Mφs.

EDUCATION:

Fellowship

Year: 2018 – ongoing
University: University of Nairobi (Kenya) & University of Washington (US)

Mentors:

Prof. Omu Anzala, KAVI – ICR , University of Nairobi
Prof. Walter Jaoko KAVI – ICR , University of Nairobi
Dr. Joshua Herbeck, Department of Global Health, University of Washington

Doctor of Philosophy (PhD)

Year: 2009 - 2013
University: Université catholique de Louvain (UCL), Brussels, Belgium
PhD Thesis title: **PhD in Medical Sciences**
Impact of polymorphisms in the HIV Envelope on tropism determination and on infectivity of primary CD4⁺ T cells and macrophages

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PhD Promoters:	Prof. Dr. Patrick Goubau , Virologie unit, Université catholique de Louvain, Brussels, Belgium. Dr. Jean-Claude Schmit , Center Recherché Public–Santé, Luxembourg
Key skills acquired:	Recombinant viral assays, Molecular cloning, Molecular Biology, Cell Biology, Immunology, Immunoblotting, quantitative PCR, Bioinformatics
Outstanding Achievement:	Development and validation of a recombinant viral assay for accurate HIV tropism determination for B and non-B subtypes. Viral tropism must be determined prior to prescription of Maraviroc.
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Masters Degree:	M.Sc in Molecular Biology
University:	Katholieke Universiteit Leuven, Belgium.
Year:	2005 - 2007
Master's Thesis:	Study of the receptor for pathogenic F18+ <i>Escherichia coli</i> strains in pigs.
Promoter:	Dr. Frank Verdonck - Lab of Immunology at Ghent University
Bachelors Degree:	Bachelor of Science (B.Sc)
Main subject:	Biochemistry
University:	Kenyatta University, Nairobi, Kenya
Date:	1997 - 2001
Professional organization Membership:	European Society for Antiviral Resistance Biochemical Society of Kenya World Society for Virology
Other Relevant Experience:	March 2006 Biochemistry laboratory, Vrije Universiteit Brussel Extraction and purification of lectins, Bacterial transformation, protein concentration determination, Affinity chromatography May, 2000–Nov, 2000 The International Centre for Insect Physiology and Ecology Skill in laboratory techniques specific to: analytical techniques, Relative persistence of phenylacetone nitrile an aggregation pheromone on various environmental substrates June, 2001-Nov, 2001 The Wellcome Trust Research Laboratories – Nairobi Kenya Molecular Biology training
Referees:	Dr. Edward K Muge Senior Lecturer & HOD Biochemistry department University of Nairobi P.O Box 30197 – 00100 Nairobi, Kenya Mugeek@uonbi.ac.ke Prof. Edward Nguu Associate Professor University of Nairobi P.O Box 30197 – 00100 Nairobi, Kenya enguu@uonbi.ac.ke Prof. Dr. Patrick Goubau Virology unit, UCL 5492 Avenue Hippocrate, 54 B- 1200 Brussel patrick.goubau@uclouvain.be

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ANNEX

Publications:

1. The Envelope Cytoplasmic Tail of HIV-1 Subtype C Contributes to Poor Replication Capacity through Low Viral Infectivity and Cell-to-Cell Transmission. Santos da Silva E, **Mulinge M**, Lemaire M, Masquelier C, Beraud C, Rybicki A, et al. **2016** PLoS ONE 11(9):
2. Anti-HIV activities in an African plant extract. Y Zheng, **M Mulinge**, M Counson, X Yang, A Steinmetz, JC Schmit, C Devaux .2014. *Planta Med* **2014**; 80 - PD119 DOI: 10.1055/s-0034-1382540
3. HIV-1 tropism determination using a phenotypic Env recombinant viral assay highlights overestimation of CXCR4-usage by genotypic prediction algorithms for CRF01_AE and CRF02_AG. **Mulinge M**, Lemaire M, Servais J-Y, Rybicki A, Verhofstede C, Lee Y, Struck D, Santos da Silva E, Seguin-Devaux C, Schmit JC, Perez Bercoff D. **2013**. *PlosOne* **8** (5)
4. The frantic play of the concealed HIV envelope cytoplasmic tail. Santos da Silva E, **Mulinge M**, Perez Bercoff D. **2013**. *Retrovirol* **10**(1): 54
5. A comparative study in direct cryopreservative efficacy between Triladyl® and EDTA saline glucose 10% glycerol cryopreservative media for human and non-human infective trypanosomes. Ndungu K, Gitonga P, **Mulinge M**, Kangethe J, Kibugu J, Munga L, Maina N, Kagira J, Ngae G, Murilla G. **2009**. *J. Protozool. Res* **19**: 22 – 28
6. The possibility of positive selection for both F18⁺ *Escherichia coli* and stress resistant pigs opens new perspectives for pig breeding. Coddens, A., Verdonck, F., **Mulinge, M.**, Goyvaerts, E., Miry, C., Goddeeris, B., Duchateau, L., and Cox, E. **2008**. *Vet Microbiol* **126**: 210–215
7. Z., Zheng, Y., Wang, N., **Mulinge, M.**, Schmit, J.-C., Steinmetz, A., and Seguin-Devaux, C. (2021). Chemical Constituents of *Cassia abbreviata* and Their Anti-HIV-1 Activity. *Molecules* **26**, 2455.
8. Zheng, Y., Yang, X.W., Schols, D., Mori, M., Botta, B., Chevigné, A., **Mulinge, M.**, Steinmetz, A., Schmit, J.C., and Seguin-Devaux, C. (2021). Active components from *cassia abbreviata* prevent hiv-1 entry by distinct mechanisms of action. *Int. J. Mol. Sci.* **22**.
9. Scriven YA, **Mulinge MM**, Saleri N, Luvai EA, Nyachio A, Maina EN, et al. Prevalence and factors associated with HIV-1 drug resistance mutations in treatment-experienced patients in Nairobi, Kenya: A cross-sectional study. *Med (United States)* 2021;100:27460.

Oral presentations:

Comparison of a phenotypic and genotypic HIV tropism assay and determination of its accuracy on different subtypes and main CRFs. **M Mulinge**, M Lemaire, JY Servais, A Rybicki, C Masquelier, C Verhofstede, C Devaux, JC Schmit, D Perez Bercoff. 10th European Meeting on HIV and hepatitis, Barcelona, March 2012

Posters:

Role of HIV Env gp41 Cytoplasmic Tail in Infectivity of Monocyte derived Macrophages and Monocyte-derived Dendritic cells. **Mulinge M**, Santos Da Silva E, Lemaire M, Masquelier C, Servais JY, Schmit JC, Perez Bercoff D. Keystone Symposia, Frontiers in HIV Pathogenesis, Therapy and Eradication (X8) March 27-30, 2012 Whistler, British Columbia, Canada

Polymorphisms in the cytoplasmic tail of gp41 modulate viral replication in CD4⁺T lymphocytes. Santos Da Silva E, **Mulinge M**, Lemaire M, Rybicki A, Masquelier C, Servais JY, Schmit JC, Perez Bercoff D. CROI, Atlanta, Georgia, USA March 3-6, 2013

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Polymorphisms within the HIV Env cytoplasmic tail impair replication in CD4 cells but not in monocyte-derived-macrophages. Mulinge M, Santos Da Silva E, Lemaire M, Rybicki A, Servais JY, Masquelier C, Schmit JC, Perez Bercoff D. Keystone Symposium, April 4-9 2013, Colorado, USA