

PERSONAL DETAILS:

Name and Surname: MURINDAHABI M. Marilyn

Birth date: 7th March 1980.

Status: Married

Nationality: Rwandese

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EDUCATIONAL QUANLIFICATION:

- **PhD studies in Life Sciences, Medical Entomology**, Wageningen University and Research Centre (WUR), The Netherlands (2016-2020).
 - **Masters in Life Science, Medical Biotechnology**, Wageningen University and Research Centre (WUR), The Netherlands (2010 – 2012).
 - **Bachelor of Sciences in Biology** (Biotechnology option). (NUR), Huye, Rwanda National University of Rwanda, (2000–2005).
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PROFFESIONAL EXPERIENCE

- From 1st June up to today: **Division manager** of Food and Drugs Inspection and compliance at Rwanda Food and Drug Authority.
- From december 2021 up to 31 May 2021: **Senior Laboratory analyst** - World Health Organization - Rwanda

Responsibilities:

- Responsible for coordination of laboratory-related activities linked to the COVID-19 outbreak response and other IDSR priority discuss and laboratory systems strengthening; Conduct site monitoring missions together with MOH and partners to ensure adequate monitoring of laboratory program performance;
- Assist RBC-NRL for designing appropriate algorithm for COVID-19 screening and testing to improve access for laboratory testing for COVID-19;
- Collaborate with partners to develop implementation plans for integration of new technologies and diagnostics eg. GeneXpert and Rapid Diagnostic Tests (RDT) into testing algorithms; organizing and facilitating training on new technology as required;

- Evaluate of novel diagnostic tools and identification of new markers of the disease for providing relevant advises to RBC leadership; Provides technical expertise and guidance on laboratory biosafety related to the testing of clinical specimens
 - Coordinate Laboratory working group to review and develop critical documents including Laboratory strategic plan, Laboratory policy document, operational plans, Integrated Disease Surveillance Response (IDSR) guidelines and strategic plan, Epidemic preparedness and response plan, one health platform and IHR core capacities needed for Rwanda;
- January 2013 up to date, **Assistant lecturer** at College of Science and Technology (**CST**) , **University of Rwanda. And assistant lecturer (part time)** September – December 2013, at Mount Kenya University (**MKU**).

Responsibilities:

- Teaching as a member of a teaching team courses assigned.
- Developing own teaching materials, methods and approaches considering established or agreed practices.
- Supervising and mentoring undergraduate students, providing advice on study skills and helping them with learning problems.
- Setting and marking assignments, examination questions as well as assessing the work and progress of undergraduate students by reference to defined criteria and provide constructive feedback.
- Seeking ways of improving performance by reflecting on teaching design and delivery and obtaining and analyzing feedback.
- Supervising undergraduate student projects under guidance and supervision.
- Conduct research and publishing articles in journals with higher impact factor.

Courses Taught at Undergraduate level: Molecular Biology /BIO3314, BSc, College of Science and Technology (CST) - Department of Biology; Vertebrate Physiology / BIO3211,BSc, College of Science and Technology (CST) - Department of Biology; Genetics and evolution theories / BIO3124/ BIO1261&BIO2233, BSc, College of Science and Technology (CST); Developmental Biology; Virology I/ MLS 4105, BSc, Mount Kenya University (MKU) - Department of Public Health; Immunology and Immunogenetics / BIO3263, BSc, College of Science and Technology (CST).

- 01, August 2007- November 01, 2009. **Laboratory Specialist – NVL, International** at Center of AIDS Care and Treatment Programs Mailman School of Public Health Columbia University (ICAP) and Food and Agriculture Organization (FAO), Rwanda.

Responsibilities

- Conducting molecular tests for Avian Influenza, and other tests according to the Rwanda Ministry of Agriculture protocols and guidelines.
- Maintain all laboratory materials and equipment ensuring good condition.
- Maintaining molecular laboratory stock, creating inventories and making purchase orders.

- Recording all laboratory results in their corresponding repositories and sharing lab results sheets with the respective department and different partners.
 - Maintaining current molecular Biosafety level 3 practices, apparatus and diagnostic tests, consumables and their uses.
 - Sending samples to the regional reference laboratories on quarterly basis for quality control.
 - Sharing monthly, quarterly and annual reports with the department and partners.
- **Laboratory Technician**, 07/01/2006 - 07/31/2007, National University of Rwanda, Faculty of Sciences / Department of Biology.

Responsibilities

- Assisting undergraduate students in their practical experiments and lecturers in laboratory experiments for research.
- Daily maintenance and cleaning of equipments and quality control tasks.
- Maintaining molecular laboratory stock, creating inventories and making purchase orders.
- Sharing monthly, quarterly and annual reports to the department.

TRAINING

- Short course training on COVID-19 testing using Real-Time Polymerase chain reaction using Standard M nCoV Real-Time Detection kit and Da an gene detection kit. National Reference Laboratory, Rwanda (January 2021).
- Trained on Anopheles sibling species complex identification using Polymerase chain reaction; Enzyme-Linked Immunoassay test for Parasite infection rate test and Blood meal test. Wageningen University and Research, The Netherlands (July 2019 - February 2020).
- Trained in working in Biosafety Level 3 and ML-I Laboratory (*Awareness training on biological safety*). Wageningen University and Research, The Netherlands. (30th April 2018).
- Trained on *Entomological Surveillance and planning (Human Landing Catch / CDC light traps – Morphological Identification of mosquito specimen)*. Rwanda Biomedical Center – Malaria and Other Parasitic Disease Division – Rwanda. (21- 02/24/ 2016)
- Trained on *ELISA and Molecular techniques used in viral diagnosis for Foot and Mouth Disease, Newcastle Disease, African swine fever*. Rwanda Animal Resources Development Authority. (02/22 – 03/07/2009)

- *Trained as a trainer (Training of Trainers (TOT)) on Biosecurity, surveillance and Avian Influenza Outbreak Response for East Africa region.* Morogoro Livestock training institute - Tanzania. (10/11 – 10/15/2008)
- *Trained on Avian Influenza Testing using Applied Biosystem and Polymerase chain reaction.* National Reference Laboratory. Kigali / Rwanda. (09/22 – 10/03/2008)
- *Trained on Diagnostic Laboratory tests for Highly Pathogenic Avian Influenza and other Transboundary Animal diseases using different molecular technics (polymerase chain reaction and ELISA).* Debre Zeit agricultural and animal research center. Eastern Africa Sub-Regional Workshop of Debre Zeit, Ethiopia. (06/11 – 06/13/2008)
- *Trained on Epidemiologic surveillance of Avian Influenza in wild birds* FAO-Rwanda. in Akagera game lodge. (04/28 – 05/02/2008)
- *Trained on ViroSeq™ human immunodeficiency virus type 1 (HIV-1) genotyping system for sequence-based analysis in HIV-1 drug resistance.* National Reference Laboratory, Rwanda. (11/26 – 11/29/2007)
- *Trained on Avian influenza diagnosis using Real-Time PCR; demonstration of specimen collection and aliquoting, Nucleic acid extraction; Set-up and running RT-PCR; Analysis and the interpretation of the results.* Control Disease Center / Kenya Medical Research Institute, Kenya. (11/05 – 11/09/2007)
- *Trained on implementation of the Rapid Response Team - Avian Influenza Surveillance in Rwanda.* Control Disease Center, FAO, Treatment Research AIDS Center plus and ICAP Columbia University, RARDA. (09/11 – 09/14/2007)
- *Pedagogy Training on introduction of Active Teaching Short Course as a tool of learning improvement at undergraduate level in the Curricula of Rwanda.* (07/16 – 07/19/2007)
- *Training course on Analytical Techniques for Water Quality Control.* National University of Rwanda - WREM Project. (04/12 – 04/21/2007)
- *Training on Higher Education Science and curriculum reform: integration of HIV- AIDS into set courses in Rwanda Universities.* UNESCO/ African Women in Science & Engineering (AWSE), Rwanda. (03/28 – 03/30/2007)
- *Trained on Cytogenetic Techniques (Cell culture, Karyotype Techniques), Molecular Biology (DNA extraction from blood samples, PCR Techniques).* National University of Rwanda- Faculty of Medicine. (12/01 – 12/15/2006)
- *Trained on PCR techniques within the molecular biology service - HIV/AIDS Diagnostics using AMPLICOR HIV-1 DNA Test version 1.5 (PCR ROCHE), COBAS Taqman and DNA extraction from Dried Blood Spot.* National Reference Laboratory. Rwanda. (06/16 – 10/10/2005)

PUBLICATIONS

- Butera, Y., Mukantwari, E., Artesi, M., Umuringa, J. D. A., O'Toole, Á., Hill, N., Rooke, V., Hong, S., Leandro, S., Dellicour, S., Majyambere, O., Bontems, S., Boujemla, B., Quick, J., Cristina, P., Resende, N. L., Umumararungu, E., Kabanda, A., **Marilyn Milumbu, M., ... Rujeni, N. (2021).** Genomic Sequencing of SARS-CoV-2 in Rwanda: evolution and regional. MedRxiv Preprint, 43. <https://doi.org/https://doi.org/10.1101/2021.04.02.21254839>
- **Marilyn Milumbu Murindahabi**, Willem Takken, Xavier Misago, Elias Niyituma, Jackie Umupfasoni, Emmanuel Hakizimana, Arnold J. H. van Vliet, P. Marijn Poortvliet, Leon Mutesa, Nathalie Kayiramirwa Murindahabi & Constantianus J. M. Koenraadt. Monitoring mosquito nuisance for the development of a citizen science approach for malaria vector surveillance in Rwanda. *Malaria Journal* volume 20, Article number:36 (2021)
- **Marilyn Milumbu Murindahabi**, Domina Asingizwe, P. Marijn Poortvliet, Arnold J. H. van Vliet, Emmanuel Hakizimana, Leon Mutesa, Willem Takken, and Constantianus J. M. Koenraadt. 2018. A Citizen Science Approach for Malaria Mosquito Surveillance and Control in Rwanda. *NJAS - Wageningen Journal of Life Sciences* 86–87:101–10.
- Asingizwe, D., P. Marijn Poortvliet, Constantianus J.M Koenraadt, Arnold J.H. van Vliet, **Marilyn Milumbu Murindahabi**, Chantal M. Ingabire, Leon Mutesa and Peter H. Feindt. (2018). "Applying Citizen Science for Malaria Prevention in Rwanda: An Integrated Conceptual Framework ". *NJAS - Wageningen Journal of Life Sciences* 86(87):111-122
- Asingizwe, D.*, **Marilyn Milumbu Murindahabi***, Constantianus J.M Koenraadt, P. Marijn Poortvliet, Arnold J.H. van Vliet, Chantal M. Ingabire, Emmanuel Hakizimana, Leon Mutesa, Willem Takken, and Cees Leeuwis (2019). "Co-design a Citizen science Programme for Malaria Control in Rwanda" *Sustainability* 11 (24):1-17
- Etudes Rwandaises, ISSN 1011 -4874, Volume 12, Series Sciences exactes, naturelles et appliquées, 2006. PCR à partir d'ADN proviral extrait du sang desséché sur papier filtre comme technique alternative pour le diagnostic du VIH chez des nourrissons au Rwanda. (pp73-83). MURINDAHABI M. Marilyn¹, GONZALES Luis Phelipe² et BAJYANA Songa Emmanuel¹

ABSTRACT BOOK

- **Marilyn M. Murindahabi**¹, Emmanuel Hakizimana, Leon Mutesa, Marijn Poortvliet, Arnold J.H. van Vliet, Sander Koenraadt. "Monitoring mosquito nuisance through a citizen science approach to enhance malaria vector surveillance in Rwanda" in Evidence for Health "Bridging the Gap between Research and Policy", page 69. 2018 Health Research & Policy Day. August 2018
- **Marilyn M. Murindahabi**^{1*}, ²Deidre Bosch, ³Asingizwe Domina, ³Leon Mutesa, ⁴Emmanuel Hakizimana, ⁵Marijn Poortvliet, ⁶Arnold J.H. van Vliet, ⁷Sander Koenraadt, ⁵Peter Feindt and ⁷Willem Takken. "A Digital Citizen Science Platform for Malaria Vector

Surveillance and Control in Ruhuha, Rwanda “. SSB/001/PC: 5th SASA International Conference & 2nd Rwanda Biotechnology Conference. October 2017

- **Marilyn Milumbu Murindahabi**¹, Constantianus J. Koenraadt², Willem Takken², Leon Mutesa³, Emmanuel Hakizimana⁴, P. Marijn, Poortvliet⁵, Arnold J.H. van Vliet⁶. “Citizen science for mosquito monitoring and malaria vector control in Ruhuha, Rwanda”. 68th American Society of Tropical Medicine and Hygiene. Volume 101, 1068, pge 327.

OTHER EXPERIENCES AND MEMBERSHIP

- Member of American Society of Tropical Medicine and hygiene (2019 up to Date)
- Member of Rwanda University Women association (RAUW). (2007 - 2008)
- National University of Rwanda - Faculty of Law. (February – June 2006)
Position; Data entry operator
Data entry of the digital part of the Codes project and Laws of Rwanda.
- KEMIT ca. (05/18 – 05/31/2005)
Position: Communication & Public Relation Officer.
Responsible for the communication and the public relations with KEMIT ca.
- Arts AZIMUT IV at the University Center for Arts and Drama, National University of Rwanda.
Position: Coordinator of the contemporary shutter dances (BRIDGET KILROY). (January - February 2005)
- ROTARACT CLUB Butare District N° 908 – Rwanda. (2002 – 2006)
Position: Secretary of the club.

TECHNICAL AND PROFESSIONAL SKILLS

- Experience in handling blood samples in BSL 3 laboratory, DNA and RNA extraction (Microarray (Agilent)), PCR, RT-PCR, qPCR, agarose gel electrophoresis, HIV genotyping.
- Experience in handling, processing and disposing mosquito specimen in BSL 3 Lab, MR4-Pf Enzyme-linked immunosorbent assay, Hemagglutination inhibition test and Sub-species determination of the *An. gambiae* complex.
- Experience in microbiological techniques allowing for the maintenance and growth media, inoculation, subculturing of *C. elegans* (in liquid and solid media) as well as freezing and recovery of *C. elegans* stocks.

- Excellent presentation and interpersonal skills, both written and verbal.
- Learning skills having willingness and curiosity to learn new area of medical research and present them before team on PowerPoint slides and or MS teams or other .
- Decision making skills to take own initiative and make quick, effective decisions when necessary.
- Experience in working with interdisciplinary team

COMPUTER SKILLS

- Proficient MS WINDOWS XP VISTA / 7, 10
- Advanced experienced with Microsoft office (Word, Excel, PowerPoint, Access, Outlook 2016)
- Advanced experience with Internet searching and browsing.
- Proficient in videoconferencing software (Microsoft Teams, Skype for Business, Zoom, Google meet etc.)

SPOKEN LANGUAGES

- English: excellent
- French: excellent
- Kinyarwanda: good
- Swahili: good

REFEREES

Leon Mutesa, MD, PhD
Professor of Human Genetics
Director of Center for Human Genetics
College of Medicine and Health
Sciences - University of Rwanda
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Email: nyinawumwiza@yahoo.fr

I hereby declare that the above-mentioned information is true to the best of my knowledge.

Kigali, 11 June 2021

MURINDAHABI MILUMBU Marilyn

A handwritten signature in blue ink, consisting of a large, stylized 'M' followed by a horizontal line and a small flourish.