

CALL FOR APPLICATION: MASTER'S SCHOLARSHIP UNDER MALARIA MOLECULAR SURVEILLANCE PROJECT

1. Background

The Rwanda Biomedical Centre (RBC) is pleased to invite expressions of interest from highly motivated Master's students to participate in an innovative national surveillance and capacity-strengthening initiative under the Malaria Molecular Surveillance (MMS) Project, funded by the Gates Foundation. Malaria remains a major public health challenge in Rwanda despite significant progress achieved through interventions such as insecticide-treated nets (ITNs), indoor residual spraying (IRS), and improved malaria case management. However, the emergence of *Plasmodium falciparum* mutations associated with artemisinin partial resistance and Pfhrp2/3 gene deletions poses a growing threat to malaria control and elimination efforts nationally and globally.

To address these challenges, RBC has received a three-year grant to establish a National Malaria Molecular Surveillance Platform and a malaria reference genomic laboratory to strengthen real-time detection and monitoring of antimalarial drug resistance and diagnostic resistance markers. The project will integrate molecular surveillance into existing national malaria surveillance systems and generate evidence to inform policy and programmatic decision-making.

As part of this initiative, RBC will support a cohort of Master's students whose research will contribute to the scientific, operational, economic, and laboratory components of the national surveillance platform. The MMS program has been organized into six thematic research clusters that together form an integrated national malaria research consortium: 1. Implementation Science,

	2. Health Economics, 3. Molecular Diagnostics, 4. Drug Resistance and Therapeutics, 5. Genomics and Bioinformatics, 6. Capacity Building and Health Systems Strengthening. Each cluster has a distinct scientific focus, analytical framework, and methodological approach designed to produce high-quality research suitable for publication in high impact journal. In particular, the Molecular Diagnostics and Drug Resistance and Therapeutics clusters will serve as the core longitudinal surveillance components of the national malaria molecular surveillance platform by generating continuous evidence on diagnostic resistance and antimalarial drug susceptibility trends in Rwanda. Details of the research clusters are presented in Annex 1 (Table 1).
2. Application Fields	RBC particularly encourages applications from candidates currently working within Rwanda's health system, including those based in regional hospitals and national health institutions. Eligible academic backgrounds include: 1. Biomedical Laboratory Sciences, 2. Biotechnology, 3. Bioinformatics, 4. Biostatistics, 5. Health Financing, 6. Pharmacy, 7. Other related health disciplines
3. Eligibility Criteria	Applicants must: 1. Be a Rwandan national. 2. Demonstrate proficiency in English. 3. Be willing to comply with project requirements. 4. Be willing to enroll in a local or regional university (preferred). 5. Have secured admission, or be planning to secure admission, to a Master's program before the September intake. 6. Submit proof of admission status and the fee structure for the proposed academic program. Applicants are also required to indicate their preferred research cluster(s) and submit a concise 500-word concept note outlining the rationale, proposed methodology and implementation approach for the selected research topic. Applications will be evaluated by RBC based on scientific relevance, methodological rigor, innovation, and feasibility.
4. How to Apply	Interested applicants should submit the following documents: 1. Personal statement. 2. Detailed Curriculum Vitae (CV). 3. Concept note (maximum 500 words). 4. Copy of Bachelor's degree certificate. 5. Copy of National Identification Card (ID).

	6. Two academic reference letters. All applications should be submitted by email to dg@rbc.gov.rw no later than 07 August 2026. Email Subject: Master Scholarship_MMS_Research Cluster Name
5. Annex 1: Malaria Molecular Surveillance Research Clusters for Master's Students	Cluster 1. Implementation Science Topic: Operational feasibility and implementation performance of integrating malaria molecular surveillance into routine surveillance systems in Rwanda. Cluster 2. Health Economics Topic: Cost-effectiveness and sustainability of malaria molecular surveillance strategies for malaria control and elimination in Rwanda. Cluster 3. Molecular Diagnostics Topic: Epidemiology and spatial distribution of Pfhrp2/3 gene deletions and implications for malaria diagnostic policy in Rwanda. Cluster 4. Drug Resistance and Therapeutics Topic: Phenotypic susceptibility of <i>Plasmodium falciparum</i> isolates to artemisinin-based combination therapies and associated resistance markers in Rwanda. Cluster 5. Genomics and Bioinformatics Topic: Genomic characterization of <i>Plasmodium falciparum</i> populations to inform malaria transmission and resistance surveillance in Rwanda. Cluster 6. Capacity Building and Health Systems Strengthening Topic: Assessment of workforce competency and institutional readiness for sustainable malaria molecular and genomic surveillance in Rwanda.




Signed By Claude Mambo MUVUNYI

Director General

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