



## MHIRST INTERNSHIPS: 2021 CALL FOR APPLICATIONS

### INTRODUCTION

The College of Medicine (CoM) was established in 1991 as a constituent college of the University of Malawi. Its mission is “*to be an academic centre of excellence in the training of doctors and other health professionals in clinical service and medical research, responsive to the health needs of Malawi and its neighbours within the Southern African region*”. Since 2015, the National Institutes of Health-Fogarty International Centre in the USA has been funding the CoM and University of North Carolina to establish and roll-out the Malawi HIV Implementation Science Research Training (M-HIRST) Program which aims at building and strengthening local capacity for designing and conducting research studies to generate evidence that accelerates the scale up of evidence-based HIV interventions. In 2020, the Kamuzu College of Nursing (KCN) joined the M-HIRST program which will operate until 2025.

The MHIRST Internship program is developed to allow an intensive practical experience for trainees to gain HIV implementation science skills. As a research career progresses, a broad range of skills are necessary including research question development, data collection and analysis skills, problem solving, and research project and financial management. Given the critical need for HIV-focused implementation science skills in Malawi, we have created opportunities for internship placements in operational settings throughout Malawi where HIV-focused research is ongoing and on-site supervision is available. Successful applicants will be required to complete a 4 – 6 month internship between May - December 2021. The MHIRST project will support successful interns with a monthly stipend and his/her hosting institution will receive funding to cover research costs.

### Eligibility

Applicants must be familiar with the Malawi Ministry of Health HIV programs and should be one of the following:

- a. A full-time staff member of one of the MHIRST consortium organizations (CoM, KCN & UNC), PEPFAR implementing partner or the Ministry of Health (a limit of two applications per organization will be accepted)
- b. A master’s or doctoral student at the University of Malawi or at an accredited Malawian or other regional university in a health-related field i.e Epidemiology, Public Health, Biostatistics.
- c. A recent graduate of a postgraduate degree program from an accredited institution (Completed not earlier than 2019).

### Application Procedure

To be considered for the MHIRST internship program applicants must submit the following as one complete PDF document to the [mhirstcoordinator@medcol.mw](mailto:mhirstcoordinator@medcol.mw):

- A two-page cover letter that indicates your research interest and related experience in response to a specific MHIRST internship placement opportunity.
- A two-page HIV implementation research concept in line with priority areas at the placement site.
- A biosketch in NIH format (a template can be accessed [here](#)).
- Two letters of recommendation; one from an academic program director or academic/research supervisor, and the other one from a current professional supervisor who should indicate the applicant's availability to participate in this internship program. Referees should email their letters directly to the MHIRST Coordinator at [mhirstcoordinator@medcol.mw](mailto:mhirstcoordinator@medcol.mw).

**The deadline for receiving applications is 9<sup>th</sup> April 2021 at 1700hrs**

## **Internship Placement Descriptions**

**Organization:** Baylor College of Medicine Children's Foundation Malawi, Tingathe Program

**Site Supervisor:** Katie Simon/Maria Kim

**Internship Description:** Baylor College of Medicine Children's Foundation Malawi is one of three main PEPFAR care and treatment partners in Malawi and has managed multiple cooperative agreements with USAID for close to 10 years. BCM-CFM via the Tingathe program and in cooperation with the Ministry of Health, supports HIV prevention, care and treatment focused efforts in seven districts and over 130 health facilities in Malawi.

The M-HIRST intern will work with the Research and Strategic Information/Monitoring and Evaluation division and Programming division. Together these divisions support research, quality improvement (QI), and evaluations to improve Baylor-Malawi's PEPFAR supported HIV and AIDS prevention, care and support and treatment and cross-cutting programs. The intern will conduct a QI initiative under mentorship, to improve the quality of delivery of one of Tingathe's HIV related services. Examples of potential services include: self-testing, intimate partner violence screening, new client welcome service enrolment, intensive adherence counselling, TB screening, infection control for COVID/TB. Mentors will work with interns to identify a specific QI challenge, design the QI plan, oversee implementation of the plan, as well as develop and disseminate results.

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**Organization:** Lighthouse Trust

**Site Supervisor:** Associate Professor Hannock Tweya

**Location:** Lilongwe, Malawi.

**Internship Description:** Lighthouse Trust is a World Health Organization (WHO) recognized Centre of Excellence for HIV management, established in 2004. It works in close collaboration with the Malawi Ministry of Health (MOH) to operate integrated HIV testing, treatment and care clinics in four CoEs namely Kamuzu Central hospital (LH-KCH), Bwaila hospital (LH-MPC), Queen Elizabeth Central hospital (LH-UFC), and Zomba Central Hospital (LH-Tisungane). Lighthouse also provides direct service delivery and technical support in HIV care through the District Support Programs in Mzimba north and south, Rumphi, Likoma, Nkhatabay, and Ntchisi districts, and ten prototype clinics in Lilongwe district. The centers of Excellency provide HIV services to more than 60,000 clients, and together with the DSPs and prototype sites the total number of clients exceeds 130,000.

Lighthouse Trust offers a practical internship program to healthcare professionals in the following areas:

1. Integrated HIV Service Delivery: includes comprehensive HIV care, Comprehensive Tuberculosis care, Kaposi's sarcoma diagnosis and treatment, Cervical cancer screening and treatment, Family planning and STI management, and psychosocial and nutritional support.
2. Differentiated service delivery models: Students acquire practical skills on Differentiated care models including 6 multi-monthly refills, management of adolescents on ART through TEENS clubs, Nurse led Community ART Program (NCAP), and Advanced HIV disease management.
3. Operations Research: LH trust provides a conducive environment for students to gain and sharpen their research skills. Students are offered support to develop and implement research of their interest. Specific areas include development of research question, Proposal

development, IRB processes, development of data collection tools, data cleaning, analysis and results dissemination.

The work station is Lighthouse Kamuzu Central hospital and Martin Preuss CoEs in Lilongwe

### **Additional Qualifications**

1. Excellent written and verbal communication skills
2. Computer skills with word processing, spreadsheets, and statistical data analysis etc.

### **Requirements**

Interested students shall be required to develop internship objectives and discuss with site supervisor prior to initiation of the program.

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**Organization:** Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), Malawi

**Site Supervisor:** Dr. Lester Kapanda

**Location:** Lilongwe, Malawi.

**Internship Description:** EGPAF, Malawi research department in liaison with the programme (care and treatment) team is willing to host self-motivated implementation research science intern (s). The foundation is working on health related projects with the aim of supporting and strengthening the health system in Malawi and will offer a solid education to interns of all levels and prepare them for active roles in research, programme implementation and provision of policy directions. Currently the foundation is working on COVID-19 Syndromic Surveillance, Patient and Population Outcomes, HPV Vaccine Surveillance and Advanced HIV Disease. This is a very exciting opportunity for upcoming implementation science researchers, managers and we look forward to working with the intern during their placement as they grow their skills. Our growth-oriented research is dedicated to providing you with valuable learning opportunities as you share your ideas and creativity with them.

### **Responsibilities**

- Contribute to study planning, development of study protocols, related standard operating procedures (SOPs), data collection tools and informed consent forms
- Participate in training of research assistants, staff from other departments including district teams
- Participate in data gathering through interviews, field observation and or data abstraction
- Assist with monitoring compliance with study ethical provisions and consenting processes
- Assist with timely compilation and submission of study related documents for ethics review including progress reports
- Assist with data entry, generating and reporting queries, data cleaning and carrying some preliminary analyses
- Provide support for the development of concepts, abstracts and manuscripts
- Present data-driven recommendations to the research and other departments within EGPAF
- Participate in regular meetings to review progress including stakeholder and sensitization meetings in preparation for implementation of research projects

### **Benefits**

- Shadowing, mentoring, and training opportunities with our experienced research team
- Gaining competencies in principles of research ethics, protection of human participants mitigation of risks during study participation, compiling and reporting of adverse events, protocol deviations and violations
- Hands-on application of quantitative and qualitative research skills plus development of study collection tools
- Opportunity to attend and present during weekly meetings and occasional networking events with other department such as SI&E, HIS and including district teams

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**Organization: Partners In Health/ Abwenzi Pa Za Umoyo**

**Site Supervisor: Chiyembekezo Kachimanga, Chief Medical Officer**

**Location:** Neno, Malawi.

**Internship Description:**

Improving close monitoring of intensive adherence counseling sessions for HIV patients with high viral load in Neno.

In the past decade, Malawi has doubled its capacity to provide viral load testing for HIV infected patients, as the "gold standard" for monitoring the response to Antiretroviral therapy. As the viral load capacity increases, the utilization of viral load results for clinical decisions should improve. According to Malawi HIV guidelines, one of the steps after a detectable viral load in HIV patients on treatment is to follow up with intensive adherence counselling, since a suboptimal adherence to Antiretroviral drugs may be the cause for detectable viral load. In 2019, only 59% of patients with a detectable viral load had completed their necessary intensive adherence counselling sessions nationally. In the same year, 65% of patients with high viral load test results did not have any clinical decision made after 6 months of a high viral load result.

In Neno, the picture is no different, even though HIV patients with detectable viral load are provided with intensive adherence counselling. This project aims to identify the gaps and to strengthen and monitor the intensive adherence counselling process in Neno facilities.

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**Organization:** Department for HIV, AIDS and Viral Hepatitis, MOH Malawi

**Site Supervisor:** Rose Nyirenda, Andreas Jahn

**Location:** Lilongwe

**Internship Description:**

**Analysis of HIV drug resistance patterns among Malawian children on ART**

Malawi has a mature ART program with over 850,000 patients on ART. Following a rapid transition to dolutegravir (DTG)-based regimens in 2019, 820,000 are now on DTG-based first or second line regimens and are on 20,000 on protease inhibitor-based first- and second-line ART regimens. Viral load suppression of children has remained unsatisfactory around 66%. With imminent transition of all children <20kg from NVP- and LPV/r-based regimens to paediatric DTG regimens there is now an urgent need to understand the NRTI resistance patterns in the paediatric population to inform the transition strategy. Malawi has had very limited access to genotyping and resistance testing for clinical management and a national "Third-line committee" has cumulatively reviewed only a couple of hundred cases and genotyping results. The proposed project entails a synthesis and systematic review and analysis of genotypes and of the regimen history for children and adolescents. Existing genotyping results from targeted clinical investigations (Third line committee) and HIV drug resistance surveillance will be used for this analysis.

## **Patient perspectives on TB preventive therapy: obstacles and opportunities**

The national HIV Care & Treatment program has implemented isoniazid preventive therapy for latent TB infection (IPT) in the context of the pre-ART and the ART program. Over 350,000 patients are estimated to have received IPT. Anecdotal information suggests low motivation, erratic adherence and low completion rates and there is some indication for increased isoniazid pre-treatment resistance among TB patients in districts with high IPT implementation rates from the 2019/20 TB drug resistance survey. The proposed project will collect patient perspectives from a suitable pragmatic sample using qualitative methods. The findings will inform future policy and implementation guidelines.

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**Organization:** University of North Carolina Project-Lilongwe, Malawi

**Site Supervisors:** Dr. Emmanuel Singogo, Dr. Mitch Matoga, Dr. Maganizo Chagomerana

**Location:** Lilongwe, Malawi.

### **Internship Description:**

UNC Project-Malawi (UNC Project) has been conducting HIV/STD research since 1999. Over the years, the program has grown into a partnership with the Ministry of Health (MOH) and Kamuzu Central Hospital (KCH) that broadly focuses on issues of importance to Malawians, namely reproductive health, HIV and STIs, oncology, trauma, burns, malaria, and TB clinical care, training, and research opportunities. UNC Project hosts various clinical and research training programs, providing access to different resources for mentoring and supervising early career researchers.

UNC Project is offering internship opportunities to work with experienced researchers for six months in the following areas

#### **A. Uptake of DTG among Women on EFV-based regimen**

Malawi recently adopted the World Health Organization-recommended dolutegravir (DTG) for HIV treatment, including all women of reproductive age. However, the acceptability and experiences of switching from efavirenz (EFV)-based to DTG-based regimen among women are unknown in Malawi. As part of the S4 study, UNC Project started providing DTG in June 2019 at Bwaila Hospital, Lilongwe. Women were given the choice to switch to DTG as per Ministry of Health policy or opt-out.

**Responsibilities:** Successful intern will

- Work with Data team to prepare data for analysis in MS Excel and Stata
- Participate in data analysis and report writing of the results
- Help with components of manuscript writing
- Consolidate and address feedback from all co-authors.

**Output:** Completed manuscript and submission to a peer-reviewed journal.

#### **B. Uptake of Voluntary Medical Male Circumcision among men attending STI clinics**

Voluntary medical male circumcision (VMMC) is one of the key pillars for HIV prevention. As Malawi aims to meet the target to have 80% of eligible males aged 10-49 years circumcised in priority districts by 2025, men attending STI clinics are a low-hanging fruit. The UNC Project is

currently conducting an implementation project utilizing several strategies to increase the uptake of VMMC among men attending the Bwaila STI clinic.

**Responsibilities:** Successful intern will work on

- Coordinating data collection in ODK and EMR
- Data management in MS Excel and Stata
- Participate in data analysis and report writing of the results

**Output:** A results report and manuscript

### **Additional Qualifications**

- Interest or experience in conducting clinical and public health research.
  - Previous experience in quantitative and qualitative research methods
  - Strong computer skills and MS Office proficiency, especially Microsoft Excel
  - Strong organizational management and communication skills
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**Organization:** College of Medicine - Johns Hopkins Project (JHP)

**Site Supervisor:** Limbika Maliwichi

**Location:** Blantyre, Malawi

**Internship Description:** JHP was the first biomedical HIV research institution in Malawi and has more than 30 years of experience. We conduct HIV clinical trials, observational studies and, more recently, implementation research on HIV and co-morbidities. Our scientific infrastructure includes a research laboratory, research pharmacy, data department and study clinics. Together, with our partners, we strive to improve HIV care, treatment and prevention policies and practices in the region through high quality research, community engagement and capacity building.

The M-HIRST Intern will work in one of the following three areas depending on their passions, skills and career goals:

1. Quality management. Learn the importance of the QA/QC process in research. Help think of creative solutions to improve the way we implement quality management through checklists, job aids, incentivizing good quality standards across departments, revolutionizing the way SOPs are tracked and timed.
2. Research communications. Designing materials to educate HIV research stakeholders. Maximizing website and social media reach. Evaluating quality of communication. Adapting research communications to different types of stakeholders.
3. Research administration. Dive into the essential skills of grants management including understanding research budgets, communicating with technical teams, generating research reports, developing templates for essential documents and innovating the processes that are at the core of research support and operations.

The Intern will have a chance to rotate with each department at JHP to benefit from the 360 research experience, but will have a 'host' department with a defined project that can be achieved

in the 4-6 months internship period. Desirable qualities include basic knowledge of HIV science and basic understanding of what research is; strong verbal and written English and Chichewa; core computer skills (Word, Excel, PowerPoint, PDF); willing to accept feedback and constructive critiques; and self-motivation.

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