

2nd CALL FOR APPLICATIONS - MUDSReH PILOT PROJECTS MEDICAL IMAGES FOR CLINICAL DIAGNOSIS

Mbarara University of Science and Technology in collaboration with (1) Massachusetts General Hospital Center for Global Health, (2) Massachusetts Institute of Technology, (3) Kwame Nkrumah University of Science and Technology, and (4) College of Ophthalmologists of Eastern, Central, and Southern Africa are implementing a 5-Year grant (July 2021 to June 2026) from the National Institutes of Health funded through the Fogarty International Center under grant number U54TW012043) to set up the Mbarara University Data Science Research Hub (MUDSReH).

OVERALL PLAN FOR THE RESEARCH HUB:

Medical images offer great potential for supporting clinical diagnosis and care management; however, their utility for African researchers and clinicians are limited by the number of images available, insufficient linkage to relevant clinical data, limited data from African populations for proper image interpretation, and poor implementation in clinical practice. The Mbarara University Data Science Research Hub is designed to overcome these barriers through robust Data Management and Analysis and Administrative Cores, initially supporting projects in posterior segment eye disease and cervical cancer with plans for expansion to new projects and sites, as well as training in data science and implementation science.

Hub priority areas:

- Developing a database of chest X-rays for the detection of pulmonary diseases (pneumonia, hemothorax, hydrothorax, pneumothorax)
- Developing a database of obstetrics ultrasound scans for the detection of:
 - a. Pregnancy complications e.g., pre-eclampsia
 - b. Fetal complications

Applicant Eligibility:

- Applicants must be from Ugandan Universities with medical schools
- Early-stage and established investigators
- Interdisciplinary team

Award Size and duration:

- \$90,000 to cover 2 Years
- Only 3 awards available (2023 - 2025)

Expected deliverables

- Data acquired, images labeled, data documentation
- Algorithm developed and tested
- Manuscript publication

Application components (See Attachment 1 for details):

- Specific aims (1 page)
- Research plan (4 pages)
 - Significance
 - Innovation
 - Research Team and Environment
 - Approach
 - Milestones
 - Timeline
- Biographical sketch (See Attachment 2)
- Two letters of supports from your department/institution
- Budget, including justification of each item (see attachment 3)

Applications should be submitted directly to: mudsreh@must.ac.ug

- Submission deadline: **October 31, 2023**
- Scientific Review meeting: November 2023
- Notification of selection: December 2023
- Start of Pilot projects: December 2023