A Rewarding International Collaboration:

University of Minnesota
Infectious Disease Institute
Makerere University college of Health Sciences

The collaboration between the University of Minnesota and the Infectious Diseases Institute (IDI) at Makerere University is a comprehensive international collaboration dedicated to clinical research, education, and capacity building.

Our mission is the advancement of scientific knowledge and the strengthening of health systems in order to improve the lives of the most vulnerable populations affected by HIV/AIDS.

University of Minnesota
Driven to Discover℠

UNIVERSITY OF MINNESOTA
INFECTIOUS DISEASES INSTITUTE
MAKERERE UNIVERSITY COLLEGE OF HEALTH SCIENCES

MAKERERE UNIVERSITY

IDI INFECTIOUS DISEASES INSTITUTE

MAKERERE UNIVERSITY AND UNIVERSITY OF MINNESOTA

MISSION:

In 2005, the University of Minnesota and Makerere University established a bilateral collaboration founded on three main principals:

- Education
- Clinical Research
- Capacity Building

For the past 10 years, medical students, residents, physicians, Doris Duke and Fogarty fellows have worked with one another in a research and educational capacity to advance scientific knowledge.

There have been four significant clinical trials based out of the Infectious Disease Institute, over 40 publications in peer review journals, and both oral and poster presentations at major conferences. As a result, physicians working in the Makerere and Minnesota collaboration are regarded as leading experts in the field of HIV-associated cryptococcal meningitis.

FUTURE:

Today, the collaboration between Makerere University, the Infectious Disease Institute and the University of Minnesota stands at the precipice of change.

With a deeper commitment to research, the University of Minnesota with the support and involvement of the School of Public Health are in the process of developing a One Health Workforce. The aim of the One Health Workforce is to establish international collaborations to strengthen the global workforce to develop strategies to fight against emerging pandemic threats.

In addition, the University of Minnesota and Makerere University is in the planning phases of establishing a Tropical Medicine Course to be offered in Uganda. The course will be offered to physicians from all around the world and will be offered starting in 2017.

MEET OUR PIONEERS:

Andrew Kambugu, MBChB, MMed, is the head of research at the Infectious Disease Institute (IDI). He is actively involved in both the implementation of research studies as well as building the capacity to conduct research.

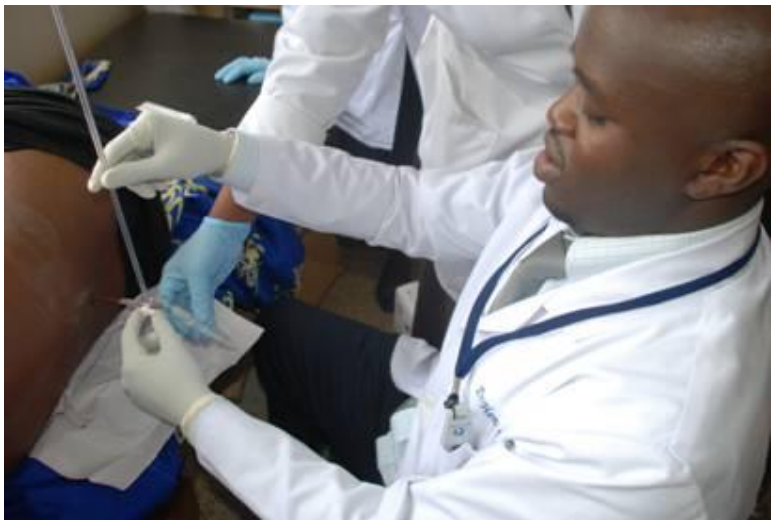
Paul Bohjanen, MD, PhD, is Division Director of Infectious Diseases & International Medicine at the University of Minnesota. He has been instrumental in the development, continuation and success of the collaboration.

David Meya, MBChB, MMed, is a lecturer at Makerere University. His interests in infectious disease research since 2005 and is currently focusing his research on HIV-related immune reconstitution inflammatory syndrome.

Dr. Boulware, MD, MPH, CTropMed, is an infectious Disease physician-scientist. His primary research interests are in cryptococcal meningitis, HIV immune reconstitution inflammatory syndrome (IRIS), and quality improvement.

MAKERERE UNIVERSITY AND UNIVERSITY OF MINNESOTA

OUR ACTIVITIES:

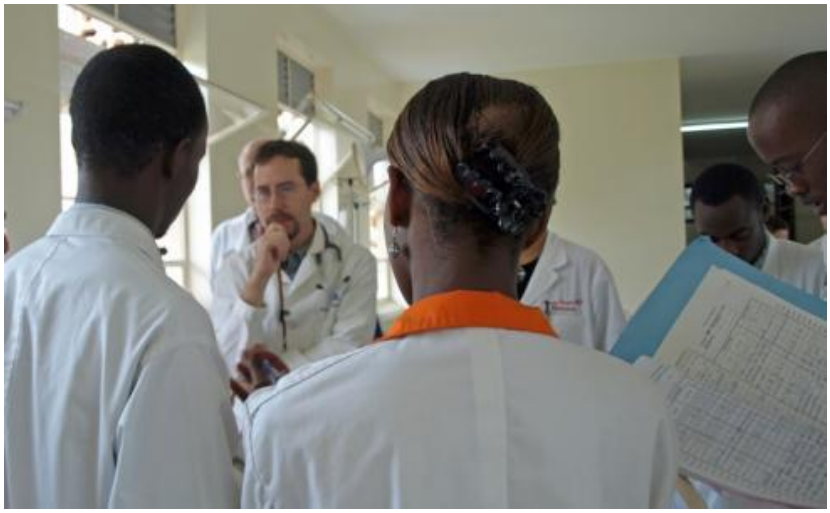


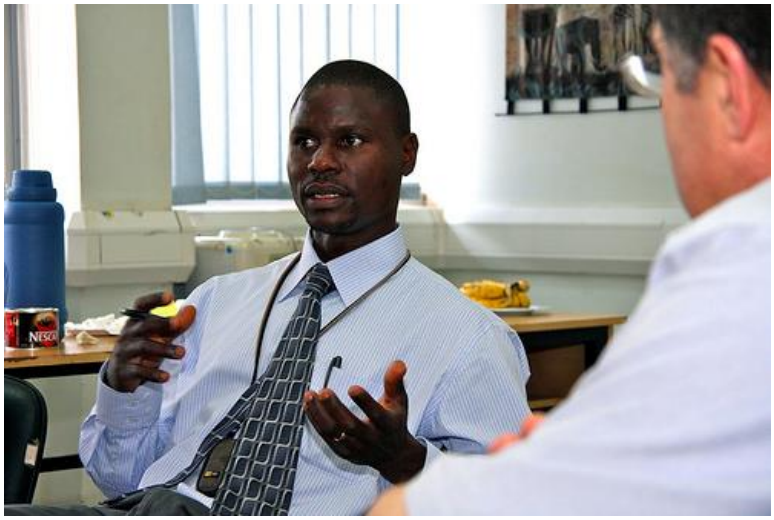
CLINICAL RESEARCH:

- Medical students under the Doris Duke Fellowship have the opportunity to begin and complete research projects.
- Medical residents have the opportunity to participate in or conduct a research project.
- Physicians work along side a team of statisticians and epidemiologists.
- Students and residents have the opportunity to write and publish manuscripts as well as present at conferences.

EDUCATION:

- Medical students/residents obtain experience in the Infectious Disease wards of Mulago Hospital.
- Physicians learn how to deliver care to patients presenting with cryptococcal meningitis.
- Physicians have the opportunity to attend the Tropical Medicine Course in Minnesota.
- Infectious Diseases fellows on research rotations gain supervised experience and credit in ACGME-accredited continuity clinic at IDI.





CAPACITY BUILDING:

- Students, residents, and young physicians are mentored by senior physicians in the areas of career development, clinical research and medical education.
- Funding is provided to attend and present at various conferences and network with leaders in the field of research.
- Translate research findings into clinical care and strengthening of existing health care in Uganda.

UGANDA RESEARCH SYMPOSIUM, 2015

Major Research Projects

COAT (U01) Cryptococcal Optimal Antiretroviral therapy Timing Trial 2010-2015

IRIDA (R01) Immunopathogenesis of HIV-related Immune Reconstitution Inflammatory Syndrome 2010-2015

ASTRO (R01, MRC) Adjunctive Sertraline for the Treatment of HIV-associated Cryptococcal Meningitis. 2013-2018

ORCAS (U01) Operational Research for Cryptococcal Antigen Screening 2012-2015

Select Publications

- Boulware DR, Meya DB, Muzoora C, Rolfes MA, Huppler Hullsiek K, Musubire A, Taseera K, Nabeta HW, Schutz C, Williams DA, Rajasingham R, Rhein J, Thienemann F, Lo MW, Nielsen K, Bergemann KL, Kambugu A, Manabe YC, Janoff EN, Bohjanen PR, Meintjes G, COAT Team. Timing of antiretroviral therapy after diagnosis of cryptococcal meningitis. N Engl J Med. 2014; 370; 2487-98. PMC4127879 doi: 10.1056/NEJMoa1312884
- Rolfes MA, Huppler Hullsiek K, Rhein J, Nabeta HW, Taseera K, Schutz C, Musubire A, Rajasingham R, Williams DA, Thienemann F, Muzoora C, Meintjes G, Meya DB, Boulware DR. The effect of therapeutic lumbar punctures on acute mortality from cryptococcal meningitis. Clin Infect Dis. 2014; 59: 1607-14. doi: 10.1093/cid/ciu596
- Rajasingham R, Rolfes MA, Birkenkamp K, Meya DB, Boulware DR. Cryptococcal meningitis treatment strategies in resource-limited settings: a cost-effectiveness analysis. PLoS Med. 2012; 9: e1001316. dx.doi.org/10.1371/journal.pmed.1001316 PMC3463510
- Rajasingham R, Meya DB, Boulware DR. Integrating cryptococcal antigen screening and preemptive treatment into routine HIV care. JAIDS 2012; 59:85-91. PMC3311156
- Meya DB, Manabe YC, Castelnuovo C, Cook BA, Elbireer AM, Kambugu A, Kamya MR, Bohjanen PR, Boulware DR. Cost-effectiveness of serum cryptococcal antigen screening to prevent deaths among HIV-infected persons with a CD4+ cell count < 100 cells/mcL who start HIV therapy in resource-limited settings. Clin Infect Dis. 2010; 51:448-55.
- Kambugu A, Meya DB, Rhein J, O'Brien M, Janoff EN, Ronald AR, Kamya MR, Mayanja-Kizza H, Sande MA, Bohjanen PR, Boulware DR. Outcomes of cryptococcal meningitis in Uganda before and after the availability of HAART. Clin Infect Dis. 2008; 46:1694-701.
- Bonham S, Meya DM, Bohjanen PR, Boulware DR. Biomarkers of HIV Immune Reconstitution Inflammatory Syndrome. Biomarkers Med. 2008; 2: 349-361.
- Rhein J, Boulware DR. The prognosis and management of cryptococcal meningitis in HIV infected patients. Neurobehavioral HIV Med 2012; 4: 45-61. dx.doi.org/10.2147/NBHIV.S24748
- Kwizera R, Nguna J, Kiragga A, Nakavuma J, Rajasingham R, Boulware DR, Meya DB. Performance of cryptococcal antigen lateral flow assay using saliva in Ugandans with CD4 <100. PloS One 2014; 9: e103156. PMC4117530 doi: 10.1371/journal.pone.0103156
- Meya DB, Okurut S, Zziwa G, Rolfes MA, Melander K, Cose S, Joloba M, Naluyima P, Palmer BE, Kambugu A, Mayanja-Kizza H, Bohjanen PR, Eller MA, Wahl SM, Boulware DR, Manabe YC, Janoff EN. Cellular immune activation in cerebrospinal fluid from Ugandans with cryptococcal meningitis and immune reconstitution inflammatory syndrome. J Infect Dis. 2014; In Press. doi:10.1093/infdis/jiu664

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