



BLANTYRE MALARIA PROJECT

College of Osteopathic Medicine, Michigan State University
University of Malawi College of Medicine



TEACHING

IM 621: Initiated at the behest of the founding Dean of the College of Osteopathic Medicine, Mike Magen, in 1987, this elective has introduced 18-24 final year medical students from Michigan State University each year to the practice of medicine in resource-challenged settings:



Top left: Ward 3B (Male Ward, QECH). Top right: Students walking to morning 'handover' at QECH. Bottom left: portable x-ray viewer, QECH. Bottom middle: Hiking on Mt. Mulanje. Bottom right: Conferring with a colleague at QECH.

The students share a house with Dr. Terrie Taylor – in 2013, MSU *bought* a house in Blantyre for the use of MSU-affiliated groups in Malawi. It is within easy walking distance of the hospital and of downtown Blantyre:



Top right: Front view of house. Top left: View from the khonde (porch). Bottom left: Living/dining room. Bottom middle: Kitchen. Bottom right: One of three bedrooms.

Undergraduate Education Abroad: Infectious Diseases of East Africa. Inaugural class May-June 2017 (instructors: Frances Pouch Downes, Karl Seydel)



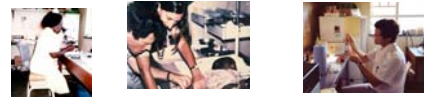
Left: Community service, Ndirande Township. Top left: MSU vs College of Medicine Molecular Lab. Top right: Lab work with Malawian counterparts.

RESEARCH

The MSU team, in collaboration with others from the Liverpool School of Tropical Medicine, University of Maryland, University of Michigan, Harvard Medical School (and more!) have been working on various aspects of malaria in Malawi.

The longest effort, which started in 1986 and is going strong, has to do with **malaria pathogenesis**: how does the malaria parasite kill patients?

The first decade was spent at the bedside:



Left: Short nurse at the microscope. Above left: TT and MEM in 1987. Above right: Before we had lab techs...

The second decade extended the work to the mortuary:



Above left: QECH mortuary. Above middle: MEM, Fred MacInnes and Mac Mallewa, during a PM. Above right, Dan Milner and Phil Theising (foreground) during a PM.

The third decade incorporated neuroimaging, using an MRI machine donated by General Electric Healthcare



Left: MRI Centre
Right: Most photogenic patient, Edwin James, in the MRI

The fourth decade will *take shape around* an interventional clinical trial (NIH funded, seven years in duration, 2016-2023) and will *take place in* the Mercy James Centre, a new pediatric surgical and intensive care unit in Malawi, spearheaded by Madonna.



Far left: Exterior, nearly complete. Second from left: Atrium mural, "Tree of Life" by Jacaranda Home for Children. Second from right: Mandela mural by Kobra. Right: One of three operating 'theatres'.

The second focus, **malaria epidemiology**, started in 2010 and takes place in the context of a large NIH-funded consortium, the International Centers of Excellence in Malaria Research (ICEMR). Malawi is one of the entities, and has successfully competed for a second 7-year grant (2017-2024).



Left: A rural health centre
Middle: Village-based teaching
Right: Malaria risk in Malawi.

SERVICE

By virtue of our long-standing presence in Malawi, we are well-positioned to lend a helping hand in situations that are independent of our research and teaching.

Supporting the construction and distribution of "CP" chairs, to aid in the rehabilitation of CM survivors with neurologic deficits



Distributing balloons, toys and insecticide-treated bednets to CM survivors



Karl Seydel, TT and Sparty, distributing balloons, bednets and toys

Obtaining difficult-to-obtain medications to the non-study patients we look after on the Research Ward.



Supporting ongoing training and education for Blantyre Malaria Project staff



Gail & Barbara Riegler Scholars 2017
Andrew Nyambalao (Biomedical Engineering), Benard Montfort Gushu (Public Health), Albert Malenga (Public Health), Madalitso Kamoyo (Information Technology), Margaret Banda (IT), Goodson Thwala (Communications). Not shown: Patricia Mawindo (Developmental Studies), Tamanda Chimbalanga (Public Health).

Providing travel support for staff who've had abstracts accepted at scientific meetings



Left: Nurse Felix Mikandawire, presenting at the American Society of Tropical Medicine and Hygiene meeting, November 2016

Right: Felix' thank-you slide

ALL OF THESE ACTIVITIES INCUR COSTS (~\$60,000 PER YEAR) THAT ARE NOT COVERED BY TUITION OR RESEARCH GRANTS. TAX-DEDUCTIBLE CONTRIBUTIONS TO THE MALAWI FUND HELP TO DEFRAY THESE COSTS. SEE www.blantyremalaria.org TO LEARN MORE ABOUT THE IMPACT OF THIS FUND AND TO SUPPORT IT.