Weill Bugando Mission
The goal of Weill Cornell Medical College (WCMC) in Mwanza, Tanzania is to strengthen medical education at the Weill Bugando Medical College. Tanzania has 1 physician per 50,000 patients, the lowest ratio of physicians to patients in the world. Of the 49 million people living in Tanzania, approximately 34 million will never see a doctor in their lifetime. This lack of human health resources contributes to Tanzania’s major health inequities and motivates Weill Cornell in its mission to deliver the best education possible to future Tanzanian physicians.

History
Weill Bugando opened in September 2003 and has been affiliated with WCMC since its inception. The College offers an MD training program, Masters in Medicine, and graduate degrees in basic sciences. Weill Bugando’s main teaching hospital is the Bugando Medical Centre, a 900-bed tertiary referral hospital with 18 clinical departments serving the people of the Lake and Western regions of Tanzania (population, 13 million).

Education Exchange
The WCMC-Weill Bugando exchange is directed by Drs. Warren Johnson and Dan Fitzgerald at the WCMC Center for Global Health and consists of the following programs:
- Weill Bugando has trained and conferred the MD degree to 872 Tanzanian physicians since 2003.
- 3 Weill Cornell physicians are based full time in Mwanza. Dr. Robert Peck coordinates in-hospital training of Tanzanian students and residents in the Department of Medicine. He conducts research on the epidemiology and optimal management of chronic diseases in Tanzania. Dr. Jennifer Downs conducts research, service and mentoring in community-based reproductive health care of adolescent girls and women in rural Tanzania. Dr. Justin Kingery is a Weill Cornell Fellow based in Tanzania. He teaches in Medicine and coordinates Weill Cornell resident rotations at Bugando.
- Each year ~35 Weill Cornell physicians in Medicine, Emergency Medicine, OB/GYN, Pediatrics, Surgery, and Neurology travel to Mwanza to teach and serve on the wards and 8 Tanzanian residents come to New York for 2 months to learn at New York Presbyterian Hospital.
- The Mulago Foundation program trains ~10 Tanzanian health professionals annually in the design, implementation, measurement, and scale-up of innovative health interventions.
- Weill Bugando junior faculty pursue MS degrees in Clinical Epidemiology and Health Services Research at Weill Cornell. The schedule of the Weill Cornell MS Program has been specifically adapted so that physicians can attend didactic training in New York during intensive blocks and then return to their home country in the interim periods to conduct their mentored thesis research in maternal-child health, infectious diseases, and non-communicable diseases.
HIV and hypertension: Dr. Peck and colleagues are describing the burden and clinical outcomes of kidney disease and hypertension among African adults with HIV infection. Hypertension is the 2nd leading cause of admission and deaths among medical patients at Weill Bugando and the age-adjusted prevalence of hypertension is higher than in Western countries. Ongoing research includes studies investigating the pathophysiology of hypertension among HIV-infected and uninfected adults.

Schistosomiasis: In Tanzania, the prevalence of schistosomiasis is > 50% and HIV prevalence is approximately 6%. It is hypothesized that *S. haematobium* infection increases the risk of HIV acquisition. Dr. Downs’s research will determine the risk of HIV infection in women and men with *S. haematobium* infection compared to controls without schistosomiasis through a case-control nested study within an established cohort of 30,000 adults in rural Tanzania. Her research also evaluates the cervical mucosal immune response in women with *S. haematobium* infection.

HIV prevention: Male circumcision reduces the risk of HIV acquisition by 60% in heterosexual men. It has been endorsed by the World Health Organization as one of the most effective HIV-prevention strategies in sub-Saharan Africa. Yet the acceptability and uptake of male circumcision depends highly on religious beliefs. Dr. Downs’s prior work in Mwanza revealed that many Christians perceived male circumcision as a Muslim practice, as a practice for the sexually promiscuous, or as unnecessary. In a cluster-randomized trial sponsored by the Gates Foundation, Dr. Downs and colleagues worked with the Tanzanian Ministry of Health in a national circumcision campaign. They documented that communities randomized to receive church-based teaching about male circumcision, in addition to education that accompanies the campaign, had 2-times greater uptake of male circumcision than communities that receive the standard teaching associated with the male circumcision campaign alone (Lancet, 2017).

Future Directions

The major goal over the next five years is to expand clinical services, research, and training in maternal-child health and cardiovascular disease prevention at Weill Bugando. These are areas of public health need for the people of Tanzania and areas identified by Weill Bugando faculty where additional training could have immediate and major impact. Specific objectives include developing innovative programs to improve access to reproductive health, pediatric primary care, and anti-hypertensive medications. Tanzanian MDs and PhDs will be trained by Weill Cornell in these areas and will become the future leaders of maternal-child and cardiovascular disease prevention programs in the region.

Another goal is to establish a continuing medical education (CME) program for the 872 MD graduates of Weill Bugando. There is currently no post-graduate CME program in Tanzania. We want to assure that Weill Bugando graduates remain on the cutting edge of medicine throughout their careers and establish a CME program which can serve as a national standard. An additional goal is to increase women leadership at Weill Bugando through provision of scholarships and training opportunities for promising women MD students and career mentorship to outstanding female junior faculty at Weill Bugando. (Total program 5 year budget, $4 million)