Queenan Fellowships for Global Health
Appendix: Sites for Visiting Teaching or Investigator-Initiated Research Fellowships

Albert Einstein College of Medicine/Montefiore Medical Center and the University of Rwanda

Currently, our department works at two sites in Rwanda, the capital, Kigali and Kibogora, located in the Nyamasheke rural region of Rwanda. Our liaison, Dean of the School of Medicine at Rwanda University and Chair of the Department of Obstetrics & Gynecology, CHUK, is Dr. Steven Rulisa. He is also an adjunct Professor of Obstetrics & Gynecology at Einstein. We have an ongoing research center in Kigali whereby U.S. residents and medical students are active participants. The associated hospitals are CHUK and Kibogora District Hospital. Faculty and Fellows have previously been clinical instructors and researchers at both sites. We are one of at least three American Universities [Duke and Yale] who have participated in the Human Resources for Health Program, commenced in 2012. This is a seven-year initiative driven by the Rwandan Ministry of Health and the Clinton Health Access Initiative.
Contact: Dr. Diana Wolfe (DWOLFE@montefiore.org)

Massachusetts General Hospital and Mbarara Regional Referral Hospital in Uganda

For greater than five years, the Massachusetts General Hospital Department of Obstetrics and Gynecology has had an academic partnership with the Ob/Gyn Department of the Mbarara Regional Referral Hospital (MRRH), a tertiary care facility located in southwestern Uganda. Dr. Joseph Ngonzi is the chair of the department. Since 1989, MRRH has served as a teaching hospital for the Mbarara University of Science and Technology (MUST), one of four medical schools in Uganda. From relatively humble beginnings as a district hospital, its affiliation with MUST has led the hospital to become one of two national referral centers for the country, providing essential basic and specialized care to an extensive population both within Uganda and neighboring countries. In the past year, there were 13,000 admissions to the Obstetrics & Gynecology Department and 10,000 deliveries. The MGH/MRRH partnership has multiple domains including focused educational outreach, development of quality improvement infrastructure, as well as research responsive to the needs of the Ugandans.
Contacts: Dr. Blair Wylie (bwylie@mgh.harvard.edu) and Dr. Laura Riley (lriley@mgh.harvard.edu) who can be reached to discuss opportunities for Queenan Fellowships (either investigator initiated research or teaching tracks).

**Oregon Health & Science University and Parirenyatwa Mbuya Nehanda Hospital in Zimbabwe (proposed Feto-Maternal Medicine Unit)**

Parirenyatwa Group of Hospitals is a tertiary teaching referral hospital serving the northeastern half of Zimbabwe. Its maternity wing, Mbuya Nehanda, manages about 10,000 deliveries per year. About 80% of patients referred to Mbuya Nehanda are high-risk pregnancies. Hypertensive disorders of pregnancy and postpartum hemorrhage are in the top three causes of maternal mortality. Prematurity and congenital malformations are in the top five causes of perinatal mortality. At present obstetric services are being offered by five general obstetric teams. The establishment of a Feto-Maternal Medicine (FMM) Unit will assist in the optimization of the care of the high-risk pregnant women and formulation of institution-based patient management protocols.

The unit will provide both a consultative service and full clinical care of complex maternal or fetal conditions and enhance research in perinatal medicine. The unit will function with two high-risk pregnancy clinics per week, and two fetal medicine clinics per week. These clinics will be introduced in the existing infrastructure. In-patient services will be offered within the established clinical units at Mbuya Nehanda Maternity Hospital. The unit will require at least two high-resolution ultrasound scanners initially.

All referral units will be furnished with criteria for referring patients to the unit. The FMM Unit will be responsible for assessment and triaging of referrals to other obstetrics teams.

**Roles of the FMM unit**

1. The unit will offer both a consultative and individualized treatment and/or management service to women with obstetric complications, medical conditions in pregnancy and women with fetal conditions/abnormalities.
2. The unit will manage complicated cases where requiring ongoing care of the women/fetus.
3. The unit will be responsible for the liaison between all the clinicians involved in the care of the mother/fetus, e.g. neonatologists, pediatric surgeons, clinic geneticists, social workers/counselors, midwives;
4. The unit will maintain a database of all cases seen and will report annually on activity and outcomes.
5. The unit will develop and maintain a liaison with other FMM specialists in the region and internationally.
6. The unit service will include counseling on request for difficult issues in prenatal diagnosis.
7. The unit will coordinate all fetal invasive procedures including amniocentesis, chorionic villus sampling to ensure common protocols and standards are maintained.
8. The unit will develop guidelines or protocols for the investigation and management of the commonly occurring perinatal complications. 

Contacts: Dr. Tsungai Chipato, University of Zimbabwe (tchipato@zol.co.zw); Dr. Leonardo Pereira, Oregon Health & Science University (pereiral@ohsu.edu); Dr. Jorge E. Tolosa, Oregon Health & Science University (tolosaj@ohsu.edu).

University of Alabama (UAB) and the Cameroon Health Initiative (CHI UAB)

CHI UAB is a collaborative initiative between the University of Alabama at Birmingham and two major health organizations in Cameroon, Africa. These partners are the Cameroon Baptist Convention Health Services (CBCHS; http://www.cbchealthservices.org/) and the University of Buea (UB). CHI UAB promotes global health through projects involving research, education and service activities. The UAB team is multidisciplinary and includes faculty and students from the Schools of Medicine, Public Health and Nursing. Program activities are coordinated by a dedicated in-country program coordinator. Ongoing projects address maternal and perinatal survival and infections (including HIV, malaria, hepatitis B, Group B streptococcus, and STIs). Opportunities include an Ob/Gyn Resident elective that is open to senior residents from US programs, electives/internships for medical and graduate students and volunteer opportunities for practicing Ob/Gyns.

Contact: Dr. Alan Tita (atita@uab.edu) directs the initiative at UAB.

University of Michigan and Universities in Ghana

Universities in Ghana and the University of Michigan have a nearly 30-year history of bilateral collaboration and cooperation in OBGYN education. For several years, the Ghana College of Physicians and Surgeons has been developing MFM as a sub-specialty, most recently with input from 2015 Queenan Visiting Teaching Fellow Dr. Lucie Moravia. The University of Ghana Medical School at Korle Bu Teaching Hospital and the Kwame Nkrumah University of Science and Technology School of Medical Sciences at Komfo Anoyke Teaching Hospital have advanced MFM training centers with active, large OBGYN training programs and MFM designated faculty and fellows providing tertiary ultrasound, high-risk maternal care, and advanced fetal care with maternity services of over 10,000 deliveries in maternity hospitals of over 400 beds.

Contact in the US: Dr. Timothy Johnson, University of Michigan (trbj@umich.edu).

Contacts in Ghana: Dr. Joseph Seffah, Accra, University of Ghana, (josepheffah@gmail.com) and Dr. Cornelius Turpin, Kumasi, Kwame Nkrumah University of Science and Technology, (corneliusturpin@yahoo.co.uk).
University of North Carolina at Chapel Hill and University of Zambia

The University of Zambia (UNZA) and the University of North Carolina at Chapel Hill (UNC) support clinical and research training opportunities in Lusaka, Zambia at the University Teaching Hospital (UTH). UTH is Zambia’s principal medical training institution and tertiary referral center. UTH is home to 20,000 deliveries each year, with 26 labor ward beds and 353 inpatient beds. Its five dedicated Ob/Gyn wards include a gynecologic emergency ward, three operating rooms, and two outpatient procedure rooms. UNZA and UNC faculty have collaborated to improve women’s health since 2001. Together they have developed and implemented an electronic obstetric record system, overseen dozens of clinical trial protocols, supported advanced degrees and academic training for Zambian clinicians, developed referral clinical services for HIV-positive pregnant women, established a national cervical cancer prevention program, and provided specialist surgical services, particularly in the field of gynecologic oncology. UNC fellows and faculty living in Zambia have appointments at UNZA and support its clinical, research, and training activities. Contact at UNC: Dr. Benjamin Chi (benjamin_chi@med.unc.edu) Contact at UNZA: Dr. Bellington Vwalika (vwalikab@gmail.com)

St. Paul Hospital Millennium Medical College in Ethiopia

St. Paul Hospital Millennium Medical College (SPHMMC) is one of the government-funded public teaching institutions in Ethiopia. The hospital was established in 1969 and is one of the oldest and biggest tertiary referral hospitals in the country. It covers a catchment population of 6 million and gives service close to 480,000 cases annually. The hospital turned into a college during 2007 and expanded itself into a noticeable academic center over the last few years. It currently trains medical students, residents in all disciplines and fellowship programs in some. The hospital provides service in all disciplines including Ob/Gyn, pediatrics with a strong neonatal unit, internal medicine with various subspecialties, anesthesiology with an adult ICU, and surgery. It also has well-organized diagnostic facilities with radiology, pathology, microbiology and medical laboratory in their respective departments. The Ob/Gyn Department has 16 faculty and a residency program with annual size of 15. It conducts close to 10,000 deliveries annually with 30-35% caesarean section rate. The department has an MFM specialist, Dr. Abdulfetah Abdulkadir, who was trained in Europe and initiated the MFM fellowship program in the department; there are currently four MFM Fellows. The curriculum was drafted and was externally reviewed before its approval by the College Academic Council. The first and second classes of fellows were enrolled in February 2014 and March 2015, respectively. This fellowship program is a two-year program with a mandatory research activity. The program is supported by the University of Michigan with guidance from Professor Tim Johnson and Dr. Senait Fisseha. Dr. Stuart B. Weiner from Thomas Jefferson University was also instrumental in drafting of the curriculum and provision of lectures. He comes to the college twice per year for academic activities and review of the fellowship program.
As an integral part of the MFM fellowship program the unit provides first and second trimester scanning, Doppler interrogation for high-risk pregnancies, amniocentesis, and intrauterine transfusion. The department has regular academic activities including lectures, seminars, case based discussions and journal club. It was one of the centers for the ‘WOMAN trial’ (international RCT study on Tranexamic acid for the treatment of PPH) with recruitment of 141 patients and has ongoing research activities on neonatal outcomes from NICU. There are also plans to conduct research on maternal and perinatal outcomes of conservative management for severe pre-eclampsia and the prevalence of GDM. The department has a dedicated learning resource center with both offline and online access for literature.

Contact in Ethiopia: Dr. Abdulfetah Abdulkadir (chechera68@gmail.com)
Contact in US: Dr. Tim Johnson from University of Michigan (trbj@med.umich.edu)

**Tenwek Hospital, Bomet, Kenya**

Tenwek is a 300-bed hospital with a wide range of surgical, medical, maternity and pediatric services, located 225 miles northwest of Nairobi and five miles east of Bomet. Tenwek Hospital is one of the largest mission hospitals in Africa, providing primary health care to 600,000 Kipsigis people within a 32-kilometer radius and serves as a referral center for a much larger region. The Obstetrics and Gynecology Department Director is Dr. Joy Draper. There is another full time American Ob/Gyn faculty, Dr. Cheryl Cowles, along with other Kenyan physicians and nurse practitioners. The department has a growing obstetric service. There are 100 maternity and neonatal nursery beds. There were 3679 admissions to the unit, with 2496 deliveries in 2015 (SVD-1834, C/S-662), with an increased number of both in 2016. The Maternity service provides care for many typical complications of pregnancy as well as many with common local complications occurring in pregnancy such as malaria, typhus, rheumatic heart disease, HIV and postpartum cardiomyopathy. The unique challenges of providing care in a resource poor country make treatment much more challenging. Both the maternity unit and the radiology department have ultrasound machines that are busy every day to meet the needs of the High-Risk Service. Both medical officers and interns rotate through the Ob/Gyn service with plans for an Ob/Gyn residency in the future.

Hospital website: www.tenwek.org
Contact at Tenwek: Dr. Joy Draper (joydraper.joyinthejourney@gmail.com)
Contact in US: Dr. Phillip Greig (philgreigmd@aol.com)

**University College Hospital/College of Medicine, University of Ibadan, Nigeria**

The Department of Obstetrics & Gynecology of the University College Hospital/College of Medicine, University of Ibadan is one of the oldest postgraduate training centers in the African region. It takes credit for the training of a large proportion of the early generation of obstetricians and gynecologists in Nigeria. The
department hosts the biannual examinations of the Faculty of Obstetrics & Gynecology of the West African College of Surgeons. It has a strong history of successful research and training collaborations with several institutions and international organizations including London School of Hygiene & Tropical Medicine, Johns Hopkins University, EngenderHealth and the World Health Organization, among others. The enduring collaboration with the World Health Organization dates to the early 1970s. Several projects are currently being implemented in partnership with the World Health Organization. The department is also involved in the SMFM’s African Coalition for Excellence in Obstetric and Neonatal Care in Africa in which it collaborates with Oregon Health and Science University.

Contacts for the collaboration in the African Coalition for Excellence in Obstetric and Neonatal Care in Africa are: Dr. Bukola Fawole, College of Medicine, University of Ibadan (fawoleo@yahoo.co.uk); Dr. Jorge Tolosa, Oregon Health and Science University (tolosaj@ohsu.edu); Dr. Leonardo Pereira, Oregon Health & Science University (pereiral@ohsu.edu).

Instituto de Nutrición de Centroamerica y Panamá and Chimaltenango Hospital in Guatemala

The Queenan Fellow will work on a research project in Guatemala with the Central American Nutrition Institute, INCAP (http://www.incap.int/index.php/en/), and at the Chimaltenango Hospital. The recipient will work with Ana Garcés, MD, Maternal Infant Health Specialist at INCAP and Senior Foreign Investigator of the NICHD-NIH Global Network for Women’s and Children’s Health Research site in Guatemala (https://gn.rti.org/). Topics for a training or educational program could include management of gestational diabetes, management of chronic hypertension, ultrasound and amniocentesis use in high-risk pregnancies. Opportunities for collaboration exist as well in Guatemala City to learn about population-based research and implementation of public health policies in maternal and child health at a country level in collaboration with the Ministry of Health. The awardee must be fluent in oral and written Spanish. Administrative support and office space from INCAP will be provided. Detailed information about the program can be requested from the Foundation for SMFM.

Specific objectives of this fellowship program are:
1) Provide MFM fellows interested in international maternal and perinatal health the opportunity to develop a research project in MFM/Obstetrics within the existing Guatemala health system.
2) Improve the quality of clinical care and advance the health of mothers and babies in Guatemala, working at the high risk obstetric clinic with residents of the Chimaltenango Hospital and in surrounding communities.
3) Expose the MFM fellows to a unique Central American public health institution and a developing health care system with access to rural and urban populations.

Contact: Dr. Ana Garcés, MD, Maternal Infant Health Specialist at INCAP (agarces@incap.int)