Welcome to Global REACH

Dear Colleagues and Friends,

Welcome to the 2012-2013 activities report for Global REACH, the international initiative of the University of Michigan Medical School (UMMS). We are excited to share some of the many international activities at UMMS over the past year – some of which were spear-headed by faculty and staff at Global REACH, and some of which were driven by individuals and departments throughout the Medical School.

Global REACH (which stands for Research, Education, And Collaboration for Health) aims to facilitate health research, education, and collaboration among UMMS faculty and students and our global partners for the benefit of communities worldwide. Pages 2-3 illustrate not only our core values, mission, and strategies, but also an overview of activities for the past fiscal year.

In this report, we highlight some of the many activities that demonstrate the value of our global efforts. For example, half of all UMMS students graduating in 2013 had an international experience during medical school, compared with a national average of 30 percent. At the same time, Global REACH assisted more than 20 different UMMS units in hosting 50 international students and trainees and 27 international fellows from more than 10 different nations.

Global REACH faculty led or assisted in the submission of $5.5M in global health-related grants over this past year, building on the medical school's portfolio of global health training grants in Ghana, China, and Ethiopia, as well as research grants that span the globe. Since 2010, Global REACH has been involved in securing more than $17M in extramural funding for global health-related research and educational initiatives.

The activities described in this report barely scratch the surface of the global engagement at the medical school. With the launch of our Faculty Associates program (see Pages 80-86), more than 80 faculty members from 17 departments in the Medical School have self-identified as conducting international work and being willing to mentor students and foster the growth of our global health community. This level of commitment by our faculty speaks volumes, and we are excited to leverage their expertise and experience to improve educational opportunities for our trainees, improve the reputation of the University of Michigan Medical School as a global player, and to address some of the most challenging issues in global health today.

Throughout much of Africa it is said, “If you want to travel fast, travel alone; but if you want to travel far, travel together.” We believe that by working together, we truly have the potential to change global health.

Sincerely,

Joseph C Kolars, MD
Josiah Macy, Jr, Professor of Health Professions Education
Senior Associate Dean for Education and Global Initiatives
University of Michigan Medical School
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About Global REACH

Global REACH was founded in 2001 by Medical School Dean James Woolliscroft to explore the value of creating an institution-wide unit to leverage existing international activities, create opportunities for synergy, and expand offerings for medical trainees. More than a decade later, Global REACH is driven by the following mission, vision, values, and strategies.

VISION

Global REACH aims to be a nationally recognized leader for developing individuals and programs to improve health and healthcare through collaborative partnerships in other countries.

MISSION

- Enable students, trainees, and faculty to develop high impact careers in global health
- Create partnerships that allow our medical school community to collaborate synergistically to improve global health
- Advance education and research in global health, particularly on the “science of collaboration,” while cultivating a community of educators and scholars
- Demonstrate the value of global health initiatives to the Medical School and University

VALUES

- Mutually beneficial, transparent, egalitarian relationships
- Health equity and a commitment to addressing health disparities
- Capacity building through education, training, and research
- Sustainability, integrity, and interdisciplinary approaches

STRATEGIES

- Establish platforms, such as multi-departmental, multi-disciplinary collaborative efforts, that foster synergistic innovation and cutting edge research to address global health challenges
- Convene and connect members of our school and institution to advance programs and careers in global health; leveraging current strengths to the benefit of others in our community
- Build mentoring programs for students, trainees, and faculty
- Create and strengthen meaningful experiences for students, trainees, and their mentors
- Fund pilot projects and new initiatives that advance the mission with a focus on our values; provide consultation on approaches to external funding
- Provide technical assistance for training and educational programs offered through the Medical School
Global REACH follows several metrics to measure success in global health initiatives at UMMS.

**RESEARCH...pages 4-19**

$68\text{M}$ in extramural global health grants were secured by Medical School faculty in 2012-2013, representing a success rate of 57\% of all global health grants submitted.*

- 80+ global health publications were authored by Global REACH Staff/Faculty Associates
- 25 funding announcements were disseminated through Global REACH alerts

**EDUCATION...pages 20-47**

- 84 UMMS students traveled to 26 countries in FY2012-2013
- 57 UMMS students were supported by Global REACH for international work
- 33 M4 students participated in international clinical electives/rotations
- 28 M1 students took part in faculty-led international small group research projects
- 77 scholars and students visited UMMS from 10 countries

**COLLABORATION...pages 48-65**

- 150+ visiting international delegates and tour participants came to UMMS from 7 countries
- 81 Global REACH Faculty Associates were appointed, representing 17 different UMMS units
- 22 Memoranda of Understanding link U-M with international partners

*Data Source: eRPM 8/23/13

eResearch Proposal Management
University of Michigan

In 2012, 50\% of graduating M4s at UMMS students noted a participation in a global health experience during their training.

The national average of medical student participation is 30\%.
Each year, hundreds of UMMS faculty and their global partners design, implement, and analyze the results of their collaborative research.

As the Medical School unit charged with facilitating global health activities, Global REACH often plays a prominent role, such as administrating a global health training grant with mentors and trainees in several different departments. In other cases it may have a very limited role, such as simply helping faculty or trainees celebrate their global work by boosting visibility.

In this section, we highlight some of the newsworthy global health research items that have taken place over the past year at the Medical School. Other such activities can be found throughout the report.

Photo: Dr. Oveta Fuller (right) at a community site visit with participants in an HIV intervention study in Zambia. Pictured at the bottom left is a great grandmother who uses a handpick to break a large boulder into gravel to be sold to support her great grandchildren who have lost their parents to AIDS.
Dr. Akinlolu Ojo Among Recipients of Inaugural NIH H3Africa Grants

UMMS faculty member Akinlolu Ojo, MD, PhD, MPH, Professor, Internal Medicine and Florence E. Bingham Research Professor of Nephrology, was among the initial grant recipients of the Human Heredity and Health in Africa Consortium (H3Africa) grants. Funded by the US National Institutes of Health (NIH) and the Wellcome Trust, a global charity based in London, H3Africa is a new initiative created to support genomic research in Africa, specifically genomic research on kidney disease, diabetes, heart disease, obesity, tuberculosis, and African sleeping sickness. H3Africa is supported by several institutes and centers at NIH, including the National Human Genome Research Institute, the National Institute of Allergy and Infectious Diseases, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Institute on Drug Abuse, the National Institute of Neurological Disorders and Stroke, the NIH Office of AIDS Research, and NIH’s Fogarty International Center. A combined commitment of almost $57M will support the H3Africa program over the next five years.

Dr. Ojo and Dr. Dwomoa Adu from the University of Ghana Medical School serve as Principal Investigators for the project “H3Africa Kidney Disease Research Network,” which has been funded for nearly $5M (2012-2017). The project seeks to rapidly increase the capacity to conduct genomic studies of kidney disease in sub-Saharan Africa through a collaborative research network comprised of investigators from 11 institutions in five African countries (Ethiopia, Ghana, Kenya, Nigeria, and South Africa) and four North American institutions.

Among the grant’s objectives are:
- phenotype 8,000 kidney disease cases and controls
- conduct genetic research projects addressing single gene mutation kidney disorders in affected families, genetic variants of single genes associated with kidney diseases in the populations, and genome-wide association studies
- establish two low-capital sustainable genomics research laboratories in Africa
- implement a customized training and career development plan for African-based genomic researchers
- establish and maintain a Network-wide biospecimen repository
- establish and maintain a Network-wide data management and bioinformatics facility
Two Studies by Dr. Katherine Gold Focus on Ghanaian Mothers and Their Newborns

In two projects co-funded by Global REACH, Katherine Gold, MD, MSW, MS, Assistant Professor of Family Medicine and Obstetrics & Gynecology at the University of Michigan Medical School, and her Ghanaian colleagues are exploring mental health among mothers of critically ill infants.

In the first study, they found that Ghanaian mothers who have critically ill infants are much more likely to suffer from postpartum depression. Evidence from high-income countries indicates that when a mother suffers from postpartum depression, her child is also negatively affected. However, in many lower-income countries, little is known about prevalence or risk factors for postpartum depression and access to appropriate mental health services are severely lacking. In Ghana, for instance, there are fewer than 10 psychiatrists in a country of 25 million people.

In the second study, the research team found that many Ghanaian mothers do not fully understand why their newborns are hospitalized following delivery. This lack of comprehension may cause mothers to overlook warning signs indicative of the need for further intervention after the infants are released from the hospital. Factors such as the communication gap between mothers and physicians or nurses, heavy patient volumes, very sick patients, and inadequate numbers of trained health care providers in hospitals in low-income countries contribute to parents’ lack of information or misunderstanding. Furthermore, parents may feel uncomfortable asking questions or not have enough education to know what to ask.

Failing to recognize warning signs of serious illness in newborns such as poor feeding, dehydration, lethargy, and jaundice often means that parents don’t seek treatment that could prevent the health problems from becoming even more serious. In addition, parents who don’t understand their child’s health issues after delivery—which may range from low birth weight to serious infection—may have an especially difficult time recognizing symptoms once they have been released and are at home.

Dr. Gold is currently evaluating follow-up data on mothers who were interviewed shortly after delivery and then again a year later to look at long-term mental health outcomes and infant growth, health, and survival in these families. In another project, she has interviewed 40 health care providers in Ghana about their views on perinatal mental health and treatment.

“We know that depression in pregnancy and postpartum can affect the pregnancy outcome. But in low-income countries, if mom is depressed it also affects the infant’s health through potential delays in her recognition and care seeking for diarrheal diseases, respiratory illnesses, and growth issues. So it really can be a life and death situation for babies in these low-income countries.” —Dr. Katy Gold
Dr. A. Oveta Fuller Earns Fulbright Scholar Award

Medical School microbiologist Professor A. Oveta Fuller was one of approximately 1,100 US faculty and professionals who received a Fulbright US Scholar Award to pursue international studies in 2012 and 2013. Dr. Fuller’s research focuses on the Copperbelt region of Zambia, where she and colleagues have been working with networks of religious leaders for several years to address HIV/AIDS in their communities.

Dr. Fuller, a former pastor who has long focused on outreach for science-based understanding of HIV and AIDS, has spent her scientific career examining viruses like herpes simplex virus and HIV/AIDS under a microscope. The perspectives she brings to her research—from the laboratory, the ministry, and the community arenas—provide a balanced approach in assessing how biological insights can transform what religious leaders and their communities do to address HIV/AIDS. In an effort to reframe perspectives, prevent HIV infection, and increase screening, she and team members work with networks of clergy and officers to provide in-depth science education and connection to available resources for serving community members more effectively.

She has recently completed two of three Trusted Messenger Intervention (TMI) workshops of the Copperbelt Validity Study, which is the focus of her Fulbright-supported work. Outcomes of TMI are measured in surveys, site visits, and focus groups to document impact of how religious leaders address HIV/AIDS stigma, the increase in understanding of HIV/AIDS, and the increase in completion of HIV voluntary counseling and testing (VCT). VCT is key in stopping virus transmission and reducing the incidence and death from AIDS and other preventable diseases.

“Trying to do an educational intervention like this without the help of a trusted network, like clergy leaders, can be very difficult. We want to know if and how well the biomedical science training empowers these influential leaders to mobilize their communities for reducing stigma and changing common perceptions about HIV/AIDS AIDS prevention and management. My background as a scientist and as a ministry leader, may help in achieving the long-term goals of the project with clergy members in Zambia. They appreciate that I understand both responsibilities, from theology and helping the community, to the science as well.”

—Oveta Fuller
Dr. Piette was recognized along with other international experts in medical informatics as an honored guest by the Bolivian Ministry of Health.

Dr. Piette (right) is shown presenting a seminar to residents at the Hospital de las Clínicas, La Paz, Bolivia.

Fulbright Scholar Award Received by Dr. John Piette

John Piette, PhD, Professor of Internal Medicine and Senior Research Career Scientist with the Health Services Research and Development Center of Excellence at the University Healthcare System Veterans Administration, was honored with a 2013 Fulbright US Scholar Award for teaching and research. Dr. Piette, who serves as the Global REACH Associate Director for e-Health, is seeking to foster the development of effective interventions for improving chronic disease management in Bolivia using cell phones (i.e., mobile health or mHealth tools).

The interdisciplinary project is being conducted over three phases from 2013-2016 and building on the fields of behavioral psychology (measuring and improving health behaviors), medicine (understanding how best to support the quality of clinical care for chronically-ill patients), and systems engineering (developing reliable, scalable mHealth models). It includes community-based participatory research methods to gather data from chronically-ill patients and their healthcare teams, a pilot test of an mHealth service focused on diabetes and hypertension management, and a randomized controlled trial with a three month follow-up.

Dr. Piette is in residence at La Universidad Católica Boliviana for two months each year, with half of his time spent teaching seminars in foundational areas of health services research, evidence-based medicine, and mentoring. The rest of his time is spent developing and implementing the research project. It is his hope that the relationships and experience gained through the Fulbright Scholarship will help to build bridges between Bolivian and US investigators that lead to new knowledge about how to approach the growing epidemic of chronic disease in Bolivia and other low-resource countries.

“Every project we undertake has three goals: (1) providing a learning experience for students at UM and our host country; (2) contributing to the science of mobile health; and (3) serving the local community. What’s been gratifying about our work in Bolivia is that we’ve been able to accomplish all three of these goals through a truly collaborative relationship with the country’s Ministry of Health, three universities, and four hospitals in La Paz.” —John Piette
Dr. Lisa Newman Honored for her Work on Breast Cancer Disparities

Lisa A. Newman, MD, MPH, FACS, Professor of Surgery and Director of the University of Michigan Breast Care Center, was chosen as one of The Detroit News’ Michiganians of the Year for 2012. For 34 years, The Detroit News has honored Michigan residents whose dedication and unselfishness has made significant contributions to others. Dr. Newman, who specializes in surgical oncology, was recognized for her research into triple negative breast cancer and how it disproportionately affects African-American women.

Dr. Newman has been working in West Africa for almost 10 years, hoping to uncover a heritable marker for high-risk breast cancer in African-American women. Central to the North American slave trade, West Africa is a region with the potential genetic footprint to help identify biomarkers of diseases that are more prevalent in Americans of African descent. Among American women with breast cancer, the rates of triple negative breast cancer in African-American women are twice that of White-American women (30% as opposed to 15%). In Ghana, where Dr. Newman is working, 60% of all women who have breast cancers have triple-negative breast cancers, making it a very rich environment to trace possible ancestral correlations.

Partnering with the Komfo Anokye Teaching Hospital in Kumasi, Dr. Newman and her colleagues are exploring her theory of genetic predisposition. By treating Ghanaian women with breast cancer and collecting information to bring back to U-M, she is hoping that an increased understanding of the disease in African women will translate to improved treatment options for all women with triple-negative breast cancer.
U-M Addiction Research Center Receives Award for Lifespan-Focused Substance Abuse Disorder Research in Ukraine

The University of Michigan Addiction Research Center (UMARC), in association with the National University of Kyiv-Mohyla Academy and the Research Institute for Social and Forensic Psychiatry and Neurology in the Ukrainian Health Ministry received a 5-year award from the National Institutes of Health (NIH) to implement a research training program to build a cadre of Ukrainian substance abuse researchers and clinician-scientists who identify, evaluate, and treat substance use disorders (SUDs) in Ukraine. The program uses a multi-tier training structure to improve and expand lifespan focused SUD research and establish developmentally-focused, community-based screening and treatment programs across Ukraine.

The project is led by Robert A. Zucker, PhD, Professor of Psychiatry and Psychology, Director of UMARC and the Psychiatry Department’s Substance Abuse Section. Deputy Director of the training program is Kirk J. Brower, MD, Professor of Psychiatry and Executive Director of University of Michigan Addiction Treatment Services. The U-M training and advisory teams include 15 faculty from the Schools of Medicine, Public Health, Social Work, Nursing, Literature, Science & the Arts, and the Department of Veteran’s Affairs.

Ukraine ranks 5th in the world in per capita alcohol consumption and is in the highest World Health Organization risk category for alcohol problems. The country is a major route for transport of illicit drugs between Central Asia and Europe and has Europe’s highest and most epidemic rate of HIV transmission via intravenous drug use. SUD is arguably the most damaging chronic, non-communicable disorder in Ukraine. The prevalence of co-morbid psychological conditions and suicidal behaviors in Ukrainians are also among the highest in Europe.

Clinical science and practice within Ukraine has only recently begun to recognize SUD as a lifespan and chronic disease. Current Ukrainian scientific activity and clinical practice focuses on clinical disorder with substantial gaps in prevention science and multi-level etiologic research. The new program has six key activities that aim to transfer knowledge about developmental etiology of SUDs and implement intervention techniques that build upon that scientific base.

The current initiative evolved from Dr. Zucker’s prior NIH-supported international substance abuse research training program, which has been funded since 2002 and has involved collaborations with biomedical and behavioral scientists from Poland, Latvia, Slovakia, and Ukraine. Over that interval, the program has had relationships with more than 200 researchers who have participated in yearly training workshops led by U-M faculty. In addition, that program helped form the Polish Society for Research on Addictions (Polskie Towarzystwo Badan’ nad Uzależnieniami) and was a central player in the establishment of new curricula on addiction medicine at the Medical University of Warsaw.
Maternity Waiting Homes and Traditional Midwives in Rural Liberia

In a study supported primarily by USAID and the Fogarty International Center, Global REACH Senior Research Associate, Sarah Rominski, MPH, is working with a team led by PIs Dr. Jody Lori (School of Nursing) and Dr. Carol Boyd (Nursing and the Institute for Research on Women and Gender), in the West African nation of Liberia to assess whether exposure to Maternity Waiting Homes (MWHs) helps reduce maternal morbidity and mortality.

Liberia has one of the world’s highest maternal mortality rates, due in large part to the long distances women must travel to reach clinics. Most women in rural Liberia give birth at home with the aid of traditional midwives (TMs). Creating MWHs is one strategy to reduce maternal morbidity and mortality by giving expectant mothers a place to come and wait before delivery; thus increasing the likelihood that women in rural Liberia will deliver at facilities staffed by skilled birth attendants (SBAs), usually a nurse or a nurse-midwife. The study also looked at whether traditional midwives were able to work with SBAs through a team approach.

Five communities received the intervention (a MWH was established and used a SBA/TM team approach) and five did not. Focus groups were conducted to examine the perceptions of TMs as they integrated into the health team.

Results thus far show that communities with MWHs experienced a significant increase in team births from baseline to post-intervention, with greater traditional midwife engagement. Furthermore, lower maternal deaths and perinatal deaths were reported from communities with MWHs. The reduction in morbidity and mortality indicates that MWHs are one effective strategy for increasing the use of SBAs, and that collaborations between SBAs and TMs can improve maternal and neonatal health.

Three UMMS Faculty Receive University of Michigan-São Paulo Research Foundation Grants

Several institutional collaboration agreements were signed during University of Michigan (U-M) President Mary Sue Coleman’s trip to Brazil in September 2012. One such agreement was with the State of São Paulo Research Foundation (FAPESP), a primary Brazilian funding agency. This agreement aims to stimulate collaboration between researchers at U-M and researchers throughout higher education and research institutions in Brazil. One of its first initiatives was to establish a joint FAPESP-UM Call for Scientific Proposals to support new research projects between U-M and Brazilian collaborators. Three UMMS projects were among the five awarded in the first round of funding:

- **Dr. Michele Heisler** (Internal Medicine/Veteran Affairs): Developing long-term population-based cohort studies and interventions to improve health care and outcomes in the western region of São Paulo
- **Dr. Katherine Spindler** (Microbiology and Immunology): Neuropathogenesis of oropouche virus in a mouse model
- **Dr. Denise Tate** (Physical Medicine and Rehabilitation (PM&R)): Development of standard methods to evaluate driving among older individuals with and without disabilities

“Preliminary analyses from the FAPESP-funded project with our colleague Dr. Julia D’Andrea Greve in São Paulo suggest significant associations between cognition and driving skills. The team, which includes investigators from the University of São Paulo, the department of PM&R, the U-M Transportation Institute, and the U-M School of Public Health, is working together to learn the role of factors such as muscle force, cognition, behavior, and vision on driving and its effect on reaction time.” —Denise Tate
New Book Provides a Universal Framework to Understanding Neurocognitive Development in African Children

A new book, co-edited by UMMS faculty members Drs. Michael Boivin and Bruno Giordani, explores research on a co-constructivist paradigm of cognitive development. It is the first book dedicated to the integration of developmental neuropsychology and public health. *Neuropsychology of Children in Africa* is intended as a reference for researchers, policymakers, and diverse professionals in global aid organizations. It provides evidence of how a comprehensive overview of the neuropsychology of African children in the public health context, when considered within a co-constructivist framework, can provide a new and powerful vantage point for the universal advancement of brain–behavior science in children.

Edited by Dr. Bruno Giordani, Professor of Psychiatry, Neurology, and Psychology, University of Michigan, and Dr. Michael J. Boivin, Adjunct Associate Professor of Psychiatry, University of Michigan and Associate Professor of Psychiatry and Neurology/Ophthalmology, Michigan State University, this book addresses rehabilitative issues for this study population. The 16 chapters provide a comprehensive lifespan approach and universal framework to understanding neurocognitive development in African children, and illustrate how the brain develops and adjusts in the face of adversity.

Drs. Boivin and Giordani have been collaborating in cross-cultural studies in African and Southeast Asian settings from more than 20 years. For the past several years, they have taken University of Michigan medical students to Uganda as part of the Global REACH small group summer experiences. The students participate in an ongoing study on the cognitive rehabilitation of HIV-affected children, traveling throughout Uganda assisting medical officers and nurses in all aspects of their work.

U-M Research Team Produces Best Telemedicine Paper of the Year

The editors of the *Telemedicine and e-Health Journal* selected a paper written by Dr. John Piette and his co-authors as the best paper for 2012. Dr. Piette is Professor of Internal Medicine and a Senior Research Career Scientist with the Health Services Research and Development Center of Excellence (COE) at the Veterans Administration. He also serves as the Associate Director of e-Health for Global REACH. The award was presented at the annual meetings of the American Telemedicine Association in Austin, Texas, May 4-7, 2013.

The following bibliography represents some of the publications of Global REACH Faculty, Faculty Associates, and staff (names bolded) that were published in 2012-2013 related to global health or authored with international partners.


Select Publications


Global REACH supports the mission and goals of the University of Michigan Medical School by providing opportunities for students to participate in educational experiences abroad and by facilitating the visits of international scholars and trainees.

Medical students across all four years may participate in a formal educational program to study global health and disparities, conduct faculty-mentored research projects overseas, or participate in clinical electives abroad. Most of these experiences are funded by Global REACH, others are supported and administered by other units within the Medical School, across campus, or outside the University.

Visiting scholars and learners come from around the world to engage in clinical, educational, or research activities. Visits may range from a few days to more than a year. Global REACH works with individual units to facilitate these visits — helping enhance the experience for our guests and strengthen their collaborative relationships with partners at the University of Michigan.

Photo: Visiting students Haruna Osman (Ghana, right) and Tatsushi Yokoyama (Japan) at the Clinical Simulation Center
Introduction

This section represents the international health experiences of University of Michigan Medical School (UMMS) students (Pages 23-41) and the international scholars and students who come to Ann Arbor to enhance their own medical knowledge and skills (Pages 42-45). In addition, a few examples of recent Medical School initiatives, which have been building educational capacity and developing research with international partners, are featured (Pages 46-47).

In Dr. Dan Clauw’s clinical research training program in Kenya, students use pipe cleaners and other fun ways to engage students in community health projects. Shown (left to right) are Adam Markovitz (M1), Allison Ellingrod, Matt Tafoya (M1), and Bella Shah (M1).

During clinical rotations through the Amazon Promise, M4s travel to rural clinics in Peru to observe and perform basic medical treatments.

M4 Stephanie Chen (left) and colleagues from her clinical rotation at the National Cheng Kung University Hospital in Taiwan.
The Global Health & Disparities (GHD) Path of Excellence was the first co-curricular program offered to UMMS students, beginning with the class that will graduate in 2015. Directed by Brent Williams, MD, Associate Professor of Internal Medicine, and guided by a faculty steering committee, GHD provides students an opportunity to integrate foundational, investigative, and experiential learning around domestic and global health disparities in order to become agents of sustainable change. As an optional, co-curricular activity, GHD complements and runs alongside the standard curriculum. It operates through several discrete structured learning experiences, longitudinal faculty advising, and a capstone field project.

GHD offers UMMS students the opportunity to gain practical experience in an underserved setting in the United States or a developing country. These opportunities generally take place after the M1 year or during the M4 year as a clinical elective. As Global REACH helps to facilitate the international activities of UMMS constituents, GHD and Global REACH have become natural partners in facilitating UMMS student activities related to health equity here and abroad.

Students who successfully complete the GHD path receive special recognition in their Dean’s letter at graduation, which includes a description of the tasks and competencies of the GHD path.

**Global Health & Disparities Path of Excellence: Class of 2016**

Twenty-nine M1 students made up the inaugural class (2015) of the Medical School’s Global Health and Disparities Path of Excellence in 2011, with two-thirds of the group choosing an international health disparities summer project.

In 2012-13, 37 M1s joined the GHD community; a growth of more than 20% over the 2011-12 numbers. Twenty-five of those M1 students participated in 2013 international summer experiences (denoted by an*).

Julie Blaszczak  
Emily Chen*  
Jose Davila*  
Stephanie Eldred  
Elizabeth Feenstra*  
LeeAnne Flygt*  
Lindsey Gakenheimer  
Jennifer Geiger*  
Elise Gelston*  
Paula Goldman*  
Christopher Grondin*  
Hussein Hamid  
Hong-Gam Le*  
Joan Leavens*  
Tammy Lin*  
Janet Ma  
Katharine McDonald*  
Kailyn Meekhof  
Rula Mualla  
Rashmi Patil*  
Caitlin Peirce  
Daniel Pepper*  
Gregory Powell*  
Erica Prochaska*  
Elyse Reamer  
Cristina Sarmiento  
Bella Shah*  
Samuel Shopinski*  
Eytan Shull-Leber  
John Snider*  
Chelsea Tafoya*  
Matthew Tafoya*  
Jonathan Waldmann*  
Steven Weinberg*  
Ariana Wilkinson*  
Leigha Winters*  
Katelin Zahn

“Our Global Health & Disparities Path of Excellence is unique because of its focus on health equities — in underserved communities in the US as well as abroad.”

– Dr. Joseph Kolars, Senior Associate Dean for Education and Global Initiatives
Faculty-led Small Group Experiences

Overview of Field Experiences

Each year, dozens of UMMS M1s seek international research experiences during their summer break. Global REACH developed faculty-led small group experiences to encourage stronger student mentorship by faculty, continuity of engagement with our international partners, and team-based learning. The following pages describe the faculty-led small group experiences from Summer 2013.

Clinical Research Training in Meru, Kenya

Faculty Mentors
Dan Clauw, MD, Professor of Anesthesiology, Professor of Internal Medicine, Professor of Psychiatry, UMMS
Jeff Punch, MD, Jeremiah and Claire Turcotte Professor of Transplantation Surgery and Professor of Surgery, UMMS

The clinical research training program in Kenya is integrated into the existing NIH-funded Multidisciplinary Clinical Researchers in Training (MCRIT) Program directed by Dr. Dan Clauw. The MCRIT program was originally funded as a NIH T32 Roadmap grant in 2005, and one element of this program is a “summer immersion” program that is offered to medical, dental, pharmacy, and nursing students to expose them to clinical research early in their training. Students selected for this project help implement a community health survey in the rural Kenyan region of Meru, contributing to the ultimate goals of establishing educational, research, and clinical care partnerships between Kenyan universities and various U-M schools and faculty.

The 2013 students had an opportunity to create their own smaller projects in relationship to the survey. These projects included: performing a menstrual hygiene assessment and developing and implementing a health education curriculum for a secondary school, examining the relationship between in-home cooking facilities and pulmonary diseases, and compiling a digital histology curriculum to share with two local Kenyan universities.

Seven UMMS students were funded by Global REACH to participate in the Kenya Summer Clinical Research Program: Leeanne Flygt*, Elise Gelston*, Kaoru Harada, Adam Markovitz, Chelsea Tafoya*, Matt Tafoya*, and Sara Vanarendonk. An additional three medical students were funded by the Summer Biomedical Research Program (see Page 35).

*UMMS Global Health & Disparities Path of Excellence Student

Dental faculty, Carlos Gonzalez (far left), and M1 Elise Gelston (far right) enjoy children’s reactions to seeing themselves on video

M1 Chelsea Tafoya (far left) and U-M dental student Jonathon Dzingle (2nd from right) discuss the health survey with community members
Chronic Disease Management in Quito, Ecuador

Faculty Mentor
David Serlin, MD, Assistant Professor of Family Medicine, UMMS

The Quito Project (TQP) is a University of Michigan-based nongovernmental organization (NGO) that, for nearly 10 years, has established a strong working relationship with community health centers in the under-resourced Area 19, located in the south of Quito, Ecuador. TQP has worked in close collaboration with faculty and medical students at the Pontifical Universidad Catolica of Ecuador (PUCE) Medical School in developing, implementing, and evaluating projects. Teams of U-M and PUCE medical students work closely with community health center leadership under the mentorship of U-M and PUCE medical school faculty to design and conduct a range of community health center-based prevention and chronic disease management interventions. The projects provide students with important exposure to program development, clinical care, and key research methods for global health research.

The 2013 teams designed and refined a survey instrument to measure the impact of small-group empowerment workshops for patients with Type II diabetes. Working in rural health centers they administered surveys to diabetic patients from different sub-centros in southern Quito, led empowerment classes using a variety of teaching styles and activities, and interviewed the patients to determine if the empowerment workshops had an effect on their views of their own autonomy, knowledge of diabetes, and their ability to manage their illness.

In Summer 2013, four UMMS students traveled to Quito to work on this project: Kashif Ahmed, Jose Davila*, Alexandria Dulchavsky, and Leigha Winters*.

*UMMS Global Health & Disparities Path of Excellence Student

Dr. Serlin arranged a diabetes empowerment seminar by Dr. Robert Anderson, Professor Emeritus of Medical Education, UMMS, for students, physicians, and other Ecuadorian professionals.

M1 students (left to right) Kashif Ahmed, Jose Davila, Alexandria Dulchavsky, and Leigha Winters

The Quito Project (TQP) is one of the longest-running student-initiated projects at UMMS.

Started in 2005 by UMMS student Bina Valsangar (MD/MPH, 2009), TQP serves as a model for thoughtful global student engagement.
Faculty-led Small Group Experiences

Molecular Epidemiology of Helicobacter Pylori in Lima, Peru

Faculty Mentor
Manuel Valdivieso, MD, Clinical Professor of Internal Medicine, UMMS

Helicobacter Pylori causes gastric ulcers and can lead to gastric cancer, a major cause of morbidity and mortality in Peru and throughout the world. This project offered medical students the opportunity to study the molecular epidemiology of H pylori, the factors that represent risk for the infection, and the clinical manifestations of such infection. Students learned molecular microbiology techniques with U-M School of Public Health faculty Dr. Chuanwu Xi prior to departure, and then put these to use at both the Environmental Control Laboratory, Division General de Salud Ambiental (part of the Ministry of Health) and the Hospital Cayetano Heredia. Dr. Valdivieso has been collaborating with these institutions for the past three years.

The student team collected, filtered, and cultured water in addition to collecting food samples from local homes. They interviewed community members and recorded sociodemographic data, evaluated risk factors for infection and the patterns of drinking water by different populations at risk, observed gastric endoscopies, and examined patients. Under the microscope, they looked at food and water samples to evaluate Helicobacter pylori.

2013 medical students on this project were: Katherine McDonald*, Samuel Shopinski*, and Adriana Wilkinson*. *UMMS Global Health & Disparities Path of Excellence Student

Students are shown with their mentors and colleagues at the Environmental Control Laboratory in Lima

M1 students Katherine McDonald and Adriana Wilkinson process food samples at the Ministry of Health
Hepatitis C Virus Awareness and Factors Affecting Clinical Research Participation in Beijing, China

Faculty Mentor
Anna Lok, MD, FRCP, Alice Lohrman Andrews Research Professor of Gastroenterology and Professor of Internal Medicine, UMMS

Over the past two decades, biomedical research has increased steadily in China with an increasing focus in clinical research. However, there is little information in the literature on Chinese patients’ perspectives on informed consent or the factors that motivate patients to participate in clinical research.

Students on this project observed clinical practice by shadowing physicians and conducted a team-based research project examining Hepatitis C Virus patients’ attitudes toward clinical research and the factors that influence the decision whether to participate. Students interviewed patients at two community hospitals in Beijing as part of a collaboration with Peking University Health Science Center Second Hospital, collecting more than 300 surveys. The data will be used in a cross-cultural comparison with the same information collected from patients at the U-M East Ann Arbor Clinics.

Two students participated in the HCV project in 2013: Tammy Lin* and Tianyi (Elizabeth) Wang.
*UMMS Global Health & Disparities Path of Excellence Student
Faculty-led Small Group Experiences

Developing Effective Disease Management Programs for Low-Income Patients in La Paz, Bolivia

Faculty Mentor
John Piette, PhD, Professor of Internal Medicine, UMMS

The Program on Quality Improvement for Complex Chronic Conditions, directed by Dr. John Piette, develops resources for chronically-ill patients and their clinical teams and supports telehealth services in low/middle income countries, as well as across national boundaries. Student summer projects include rigorous implementation science methods and collaboration with experts in international health research to ensure a stimulating experience for students and the development of a service delivery model that has the greatest possible impact on the health of chronically-ill patients around the globe. The program emphasizes community engagement, experiential learning, and work on specific, results-oriented research project. It also offers an opportunity for students to practice medical Spanish.

The 2013 diabetes project in Bolivia was conducted in collaboration with local community clinics and the Ministry of Health and with the support of experts in mobile health throughout the region. Diabetes is a central area of interest for the country due to its high prevalence rate. The team spent the summer administering surveys and enlisting patients for a telemedicine system. Patients were interviewed in four different clinics in the La Paz area. Selected patients were given a cross-sectional survey, which explored demographic information, access to healthcare, past medical history, tobacco and alcohol use, chronic care management, and medical adherence. Students also took measurements of height, weight, and blood pressure. They compiled the data and then used the surveys to screen patients for inclusion in a telemedicine system, which allowed them to receive automated calls that ask about items such as their current overall status, medication adherence, and blood pressure—all in an effort to improve their health conditions. The team enrolled almost 200 diabetic and hypertensive patients, who they trained to use blood pressure monitors and the call system.

Five students were member of the first cohort of this project: Zahra Dawson, Elizabeth Feenstra*, Gregory Powell*, Cody Schultz, and Jonathan Waldmann.*

*UMMS Global Health & Disparities Path of Excellence Student

Global REACH enhances the UMMS mission of engaging UMMS faculty and students globally
Cognitive Rehabilitation With HIV Affected Children in Kampala, Uganda

Faculty Mentors
Bruno Giordani, PhD, Professor of Psychiatry, Professor of Neurology, UMMS; Professor of Psychology, College of Literature, Science, and the Arts, U-M
Michael J Boivin, PhD, MPH, Adjunct Associate Professor of Psychiatry, UMMS; Associate Professor of Psychiatry and Neurology/Ophthalmology, Michigan State University

For African children with HIV, enhanced access to antiretroviral medications has changed the prognosis from a uniformly deadly disease early in childhood, to one in which survival well into adolescence is not uncommon. As such, pediatric HIV illness is increasingly becoming a sub-acute, chronic disease marked by developmental lag and progressive encephalopathy. Antiretroviral treatment alone, however, has been shown to be insufficient to reverse the neuro-developmental consequences of HIV infection. This ongoing research project, funded through the National Institute of Mental Health, represents the first study to systematically evaluate the effectiveness of computerized cognitive rehabilitation therapy in improving cognitive performance and behavioral outcomes in Ugandan children with HIV.

Another important component of this study is a systematic evaluation of how the HIV subtype and the corresponding immunological status of the children modify neuro-cognitive performance gains and psychiatric symptom reduction that may be seen as this intervention proceeds. Students on this project assisted medical officers and nurses in all aspects of their work, including clinical evaluations of study children and in-home healthcare programs, as well as analyzing laboratory work. Students had short placements at the large University-based Mulago Hospital and in the rural-based Kanginima Hospital, including ward experiences and distribution of medical and other supplies in outlying Ugandan areas.

Drs. Boivin and Giordani have been collaborating in cross-cultural studies in African and Southeast Asian settings for over 20 years. Their partners in Uganda include: Drs. Robert O Opoka, Paul Bangirana, and Noeline Nakasujja, Makerere University Medical School; and Dr. Patrick Mutono, Kanginima Hospital, Pallisa District and newly elected member of the Ugandan Parliament.


*UMMS Global Health & Disparities Path of Excellence Student
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Country</th>
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<td>Peter Bosch</td>
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<td>Apr 8 - May 3, 2013</td>
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<td>Kit I Ho</td>
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<td>University of Adelaide, Australia</td>
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<td>Feb 11 - Mar 1, 2013</td>
<td>Medical Learning and Teaching</td>
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<td>Owen Darr</td>
<td>University of Auckland, Middlemore Hospital, New Zealand</td>
<td>New Zealand</td>
<td>Apr 8 - May 3, 2013</td>
<td>Anesthesia and Peri-and Post-operative Patient Care</td>
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<td>Mar 11 - Apr 7, 2013</td>
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<td>Omar Metwally</td>
<td>Charite Universitätsmedizin Institut für Pathologie, Germany</td>
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<td>Oct 1 -31, 2012</td>
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<td>Ashley Dehudy</td>
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<td>Andrew Lin</td>
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<td>Apr 8 - May 3, 2013</td>
<td>Allergy and Rheumatology</td>
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<td>Daniel Pak</td>
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<td>Apr 8 - May 3, 2013</td>
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M4 International Electives/ Clinical Rotations

In addition to those supported by Global REACH, several other M4 students did international electives during the 2012-13 academic year.

They include:

- **Hanan Bazzi**
  Lebanon, Spring 2013
  Obstetrics & Gynecology

- **Elizabeth Hong**
  India, Fall 2012
  Family Medicine

- **Farhan Hug**
  Bangladesh, Winter 2013
  Surgery

- **Michelle Ma**
  Australia, Feb 2013
  Wilderness Medicine

- **Jacqueline Madison**
  India, Winter 2013
  Family Medicine

- **Mathew Modes**
  United Kingdom
  Internal Medicine

- **Roshan Najafi**
  Kenya, Summer 2012
  Internal Medicine

- **Alize Zheng**
  Africa, Fall 2012
  Surgery

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- **Hannah Perrin**
  Clinica de Familia La Romana, Dominican Republic
  Apr 8 - May 3, 2013
  HIV/AIDS Clinical Support

- **Anne Porter**
  Millenium Medical College, St. Paul’s Hospital, Ethiopia
  Sept 24 - Oct 19, 2012
  Obstetrics & Gynecology

- **Govind Rangrass**
  Groote Schuur Hospital, University of Cape Town, South Africa
  Jan 8 - Mar 8, 2013
  Trauma Surgery

- **Sepehr Rejal**
  Shahid Beheshti Medical University/Loghman Hakim Hospital, Iran
  Aug 6 - 31, 2012
  Clinical Anesthesiology

- **Eva Seligman**
  Amazon Promise, Peru
  Feb 9 - Mar 2, 2013
  Medical Outreach

- **Yorgos Strangas**
  University of Malawi College of Medicine, Queen Elizabeth Hospital, Malawi
  Jan 28 - Feb 24, 2013
  Obstetrics & Gynecology

- **Angeline Wang**
  Peking University Health Science Center, China
  Mar 11 - Apr 5, 2013
  Ophthalmology

- **Nan Xiang**
  Shanghai Jiao Tong University, School of Medicine, China
  Apr 8 - May 5, 2013
  Traditional Chinese Medicine

- **Grettel Zamora-Beridi**
  Occupational Medicine Clinic, Brazil
  Feb 13 - Mar 5, 2013
  Occupational Health

- **Xue Zhao**
  Shanghai Jiao Tong University, Ruijin Hospital, China
  Oct 8 - 26, 2012
  Otolaryngology
University of Michigan Medical students have opportunities to gain invaluable international clinical, educational, and research training.

From sterile hospitals of South Korea to remote villages in Peru, emerging physicians are exposed to diverse, culturally-appropriate, and often innovative medical practices.

“To provide optimal care for patients, regardless of geography and culture, it was imperative to share and learn from the experience of others. Being involved in the living donor liver transplant surgeries, which are rarely performed in the US due to the potential complications to the donors, reminded me of the importance of cultural background of patients in treatment decision making, i.e. the unrelenting willingness of Korean patients to undergo this dangerous surgery to save a family member.”

– M4 Alex Kim, South Korea, March 2013

“It opened my eyes to a different way of seeing medicine and patient care, where limited resources and a mandate to triage patients based on need lead to a lot of creative thinking and focus on local epidemiology instead of batteries of tests. Uncomplicated patients were sometimes delivered in the hallways because beds were taken up by patients requiring more active management. Elective cesarean sections were sometimes put off for days because of an influx of emergent cases. Lack of supplies led to some interesting reuses of what’s available - when there were no urine bags, an examination glove would be tied around the end of a urinary catheter; when there were no tourniquets for drawing blood, the tubing from an old IV bag would be used instead.”

– M4 Yorgos Strangas, Malawi, January 2013
“Even more so than before, I am conscious of my imperative role as an educator. Handing a patient a diagnosis and a pill is not enough to ensure her health and wellbeing. Rather, I need to constantly provide education and resources so that the patient is empowered to change her life and prevent disease. This was particularly true for issues regarding sanitation in Peru; however, it applies to all patients in the US as well. Understanding (if not seeing first hand) the way that a patient is living provides incredible insight into her disease state and barriers to health.”
– M4 Eva Seligman, Peru, February 2013

“Health is global in so many ways that it becomes critical in terms of your impact as a physician to understand what the rest of the world is doing to provide care and understand the types of international patients that you will treat at home. This experience gave me a taste for both how different and how similar medicine can be almost halfway around the world. In both respects, I am changed as a physician in terms of what I feel comfortable prescribing and what models of health care I feel comfortable following.”
– M4 Jocelyn Farmer, China, March

“There is a certain amount of arrogance when groups come in for several days and ‘make a difference’ without providing structure or framework for that difference to be maintained. Sustainable projects foster change from within a community and appreciate the talent and opportunities already in place, rather than trying to impose foreign ideas of best care practices.”
– M4 Anne Porter, Ethiopia, September 2012
Non-Traditional and Conference Grants

"Basic pediatric and trauma neurosurgical care is a crucial component of global surgical health and should be included in any discussion of essential global surgery. However, the involvement of neurosurgeons in these discussions has historically been lacking. One of my career goals is to be part of the group that rectifies this discrepancy. Having the opportunity to meet and interact with these leaders in global surgery was invaluable, and I took away a number of important insights with regard to the many challenges surrounding delivery." – M4 Matt Davis

Non-Traditional Grant Recipients

Marce Abare (M4)
St. Mary’s Hospital
Lacor; Gulu, Uganda
February 2013

Soc Med Course:
Beyond the Biologic Basics of Disease
(socmedglobal.org/index.html)

Christopher Grondin (M1)
Peking University Health Science Center, Beijing, China
Summer 2013

Study of international ethics

Nick Rademacher (M4)
St. Mary’s Hospital
Lacor; Gulu, Uganda
February 2013

Soc Med Course:
Beyond the Biologic Basics of Disease
(socmedglobal.org/index.html)

Steven Weinberg (M1)
St. Paul Medical School; Addis Ababa, Ethiopia
Summer 2013

The impact of post-graduate training on physician retention

Conference Grant Recipients

Matthew Davis (M4)
Cost-effectiveness of a short-term neurosurgical brigade to Guatemala
Extreme Affordability Conference, Center for Global Surgery, Salt Lake City, Utah
March 28-29, 2013

Emma Lawrence (M2)
Cardiotocograph monitoring reduced stillbirth rate and perinatal mortality rate in Ghana
American College of OBGYN Annual Clinical Meeting, New Orleans, LA
May 4-8, 2013

Anna Meyer (M2)
Speaking of infant loss: Societal norms among bereaved mothers in Ghana
Annual Meeting of the Consortium of Universities for Global Health, Washington, DC
March 14-16, 2013

Jamie Vanartsdalen (M2)
Pacemaker reuse for patients in resource poor countries: Is something always better than nothing?
Annual Meeting of the Consortium of Universities for Global Health, Washington, DC
March 14-16, 2013
In addition to funding provided by Global REACH for their clinical electives and global health experiences, medical students often receive support from other sources. For instance, the Student Biomedical Research Program (SBRP) is a medical student research training program funded by the National Institutes of Health (NIH). Students supported by SBRP typically spend eight weeks during the summer working on self-designed research projects. Another source of funding that first-year medical students often turn to is the NIH Minority Health & Health Disparities Research Training Program (MHIRT), administered by the U-M Center for Human Growth & Development.

Summer 2013 M1 Students

Emily Chen*, Kenya
U-M mentor: Jason Bell
MHIRT Award

Paula Goldman*, Ecuador
U-M mentor: Melvin McInnis
SBRP Award

Kenneth Hayes, Kenya
U-M mentor: Dan Clauw
SBRP Award

Hong-Gam Le*, India
U-M mentor: Joshua Stein
Aravind

Daniel Pepper*, India
U-M mentor: Krishnan Raghavendran
SBRP Award

Erica Prochaska*, Ecuador
U-M Mentor: Sofia Merajver
The Quito Project

Bella Shah*, Kenya
U-M mentors: Richard E Harris, Dan Clauw
SBRP Award

Amanda Shepard*, Kenya
U-M mentor: Dan Clauw
SBRP Award

*UMMS Global Health & Disparities Path of Excellence Student

“In countries like the US, the impact of digitized medical records on health outcomes is small. However, in developing countries the use of computerized health information...has the potential to make the difference between a life of thriving and one of destitution. Private healthcare providers, who bear the brunt of the country’s healthcare burden, often attend to over 100 patients a day. These results will inform policy makers, healthcare professionals, and industry leaders as to the issues physicians themselves are most concerned about in considering the adoption of a new technology, like Electronic Health Records. The promise of this technology is that it can not only serve to provide better healthcare, but also improve the quality of the clinical experience by reducing patient wait times, facilitating follow-up, and providing valuable epidemiological real time data.”

– M1 Daniel Pepper, New Delhi, India, Summer, 2013
M4 students Marce Abare and Nick Rademacher were co-supported by Global REACH and the Sujal Parikh Memorial Fund (see Pages 72-73) to participate in a month-long social medicine course in Uganda. The course “Beyond the Biologic Basis of Disease,” was conducted by SocMed – a small organization with a big interest in merging the teaching of medicine with an understanding of the socioeconomic, cultural, political, and historical underpinnings of illness.

The course used several approaches to create a learning environment where medical students could practice being both learners and teachers. Coursework on biology and environmental factors of disease was combined with films, classroom presentations, interactions with politicians and community workers, and clinic rotations at St. Mary’s Hospital Lacor in Gulu, Uganda. Fifteen Ugandan and 15 international students participated in the quasi-clinical rotation focused on political and socioeconomic determinants of health.

“For some students, this course might be the first and only time that space and encouragement are offered to think about the way we choose to engage with political and social structures that shape the context of health in our communities. Providing concrete instruction and examples of how political advocacy for health and economic justice can look in real-time went far to influence all of us as future global health leaders. It was exciting to combine ideas and the unique expertise of each student’s life experience and training as a way to broaden my own thinking about clinical care and health activism in an increasingly globalized community.”

– M4 Marce Abare, Uganda, February 2013
M1 Student Wins Yale Business Plan Competition

A small, nonprofit organization is now able to provide free vision screenings and corrective lenses to more low-income students in the US and China thanks to the efforts of UMMS student Emily Chen and her colleagues at Education In Sight (EIS). On behalf of EIS, Ms. Chen recently received the winning $10,000 prize in the 3rd annual Education Business Plan Competition at the Yale School of Management Education Leadership Conference.

Ms. Chen, who just finished her first year of medical school at U-M, is the Director of US Operations for EIS, an organization that strives to improve the academic performance of underprivileged students in the US and China who suffer from poor vision. EIS not only provides free vision screenings and corrective lenses to some of the neediest students, but they also educate them on these subjects to ensure long term benefit and foster international understanding and cross-cultural relationships. Each student who receives a free pair of glasses also gains the opportunity to be matched with an Education In Sight peer across the globe. Through pen pals and online conferencing, EIS aims to increase cultural understanding and educational opportunities by promoting cultural exchange.

Ms. Chen is in the Global Health & Disparities Path of Excellence in the Medical School and is a member of the student-run Health Equity Scholars Program, which deepens and challenges students’ understanding of issues in health care access, the reality of poverty, and the social context of disease by creating opportunities for service among indigent and marginalized communities. She is also a recent awardee of the NIH Minority Health and Health Disparities Training Program through the U-M Center for Human Growth & Development. Her award funded a Summer 2013 trip to Kenya where she worked with UMMS faculty member Dr. Jason Bell on a research project examining the impact of intrauterine contraception on the pathogenesis of pelvic inflammatory disease.

“Winning the competition was very helpful in terms of funding but also in terms of feedback from the judges. In terms of our projected growth, we want to aim high, but we want to have a plan that is feasible and flexible. We are all in our twenties and there is a lot of wisdom we don’t have. Our next step is to create a Board of Directors of professionals from the field to help guide our direction.”

– M1 Emily Chen, May 2013
UMMS Students Participate in Mexico Water Purification Projects

For the past two years, UMMS students have participated in a collaborative team project to increase access to potable water in areas of Mexico that are susceptible to high amounts of precipitation and increased flooding, both of which significantly decrease the amount of drinkable water for local constituents. Under the leadership of University of Michigan Professor Noel Tichy, and sponsored by the Eleanor Josaitis Global Initiative at Focus: Hope, the Clean Water Project teams are mostly comprised of U-M medical and nursing students and cadets from West Point Naval Academy. They work with local and national Mexican organizations to assess and pilot vulnerable areas and implement distribution, training, and guidelines for usage of Proctor & Gamble Purifier of Water sachets.

Purified drinking water has been found to not only reduce mortality and illness of children under five, but it also decreases diseases like viral hepatitis, typhoid fever, cholera, dysentery and other causes of diarrhea. Previous intervention studies in Liberia, Kenya, and Guatemala resulted in significant reduction of diarrhea incidence and improved water handling practices when trained in safe water handling and taught to use P&G Purifier of Water or similar products.

2012 team members included M1s Mei Ling Liu and Jason Pradarelli, who proposed a pilot study to introduce the P&G Purifier of Water in district Sierra Tarahumara in Chihuahua, Mexico. Geographically, Sierra Tarahumara covers about 30% of the state of Chihuahua and more than a third of population is indigenous. Their sporadic disbursement around the mountainous region communities provides an even greater barrier to accessing clean water. Only about 5% of the population has electricity, 8% have water from pipeline, and 1% have drainage of sewer water.

2013 team members included M1s Linda Li, Noreen Rana, and Anthony Sawyer (second from left in photo below). Their focus area was the state of Tabasco where, despite having 33% of Mexico’s fresh water, a quarter of the population lives in areas below sea level and has an abnormal amount of rainfall, both of which increase the risk of flooding and water contamination. Working with local stakeholders, they established the foundation for a pilot disaster relief program, which included the creation of a protocol that would allow for the rapid deployment of sachets to over 100,000 individuals identified as most vulnerable in 12 of the state’s districts. The team calculated the number of sachets it would take to provide one-month of potable water for each household, determined the estimated costs of the sachets, established a decentralized storage and distribution plan, and developed guidelines for identifying and training community leaders who would be responsible for educating households on appropriate sachet use. All of the information was synthesized in a handbook, to be used as an emergency-planning manual.

“This was a great opportunity to tackle a real life problem and undergo the whole process—from creating a mission to producing some very meaningful deliverables that will hopefully benefit thousands of households in Mexico, and maybe even more internationally. Those 3 weeks were incredibly exhausting and challenging but also very rewarding and enriching. We quickly came to the conclusion that having such a short timeframe to tackle such a big and real problem makes every day count, and that attitude of urgency is something we can all internalize and take with us in our lives.”

–M1 Linda Li, Mexico, June 2013
Estate Gift Supports Community Health Training Programs in Brazil and Ecuador

An anonymous U-M donor, whose life was cut short by colon cancer, bequeathed an estate gift that is supporting international community-based “train the trainer” workshops, improving care for patients living with chronic illness in São Paulo, Brazil and Quito, Ecuador. In considering the wishes of the donor, Global REACH leadership directed the funds to support a small study led by Dr. Michele Heisler, Associate Professor of Internal Medicine in the Medical School and Associate Professor of Health Behavior and Health Education in the U-M School of Public Health.

- The Epidemic of Non-Communicable Disease in Low- and Middle-Income Countries
  Despite attention on infectious diseases, the fastest growing health challenges in Latin America, Africa, and Asia are chronic and non-communicable diseases—particularly cardiovascular disease (CVD), obesity, diabetes, and hypertension. In both Brazil and Ecuador, the national governments have launched initiatives to improve primary healthcare, including increasing funding for community health centers serving poor neighborhoods. Local health centers are expanding clinical outreach through Community Health Workers (CHWs), residents from the communities served, who share cultural and other similarities with served patients. To be effective, these programs need to be fully integrated with the healthcare team, focus on evidence-based health and self-management behavioral approaches, and provide rigorous training and support to the CHWs administering the program.

- University of Michigan Response
  The action taken at the national level in these countries has provided new opportunities for University of Michigan Medical School (UMMS) faculty, students, and residents to partner with local physicians, nurses, and medical schools to help improve community health center clinical care programs to improve health outcomes in Brazil and Ecuador, where UMMS has developed collaborative agreements. Dr. Heisler and her colleagues are helping local community health centers develop better medical record documentation, registries, decision support systems, and self-management support programs for patients with chronic illnesses. As a central component of these efforts, they are providing intensive training and support to the CHWs and working with health centers to develop and evaluate CHW-led education and chronic disease self-management support programs (starting with patients with diabetes and CVD).

- Specific Use of Donor Funds
  The funds donated through this estate gift supported a series of trainings for local healthcare professionals (nurses, social workers) from São Paulo and Quito. Over a span of several months, those who completed the initial training practiced and conducted exercises to build on the basic skills they learned. Those who successfully completed the “train the trainer” sessions then provided training sessions to other healthcare professionals and to community health workers, with assistance and feedback from U-M expert trainers. The project began in August 2012 and is expected to be complete by August 2014.
Woll Family Foundation Provides Opportunities for International Health Experiences

An ongoing donation to the University of Michigan Medical School by Drs. Douglas and Margo Yellin Woll will eventually become the Woll Family Global Health Opportunities Endowed Fund. The Endowed Fund will be used to assist and support exceptional third or fourth year UMMS students in pursuing and engaging in an international clinical experience, preferably in the form of a one- or two-month clinical clerkship in an underserved area in a developing country. The objective is to facilitate exposure of medical students to patients in limited medical resource environments in order to provide a deeper and fuller understanding of the presentation and course of various medical conditions as well as related clinical, social, political, and ethical issues. The donors hope the students will obtain both valuable knowledge and deep insight into various disease states, many of which will present at later stages than seen in resource-rich environments like the United States.

In early 2013, M4 students Morgan Mihok and Nathan Stern were selected as the first Woll Family Global Health Opportunities Scholars. Ms. Mihot and Mr. Stern earned awards to support their clinical elective in obstetrics and gynecology at the University of Ghana/Korle Bu Teaching Hospital. The University of Ghana Medical School is one of four medical schools in Ghana, and Korle Bu Teaching Hospital is the premier healthcare facility in the country (and the only tertiary care center in the southern part of Ghana).

During their month in Ghana, they attended classes and rotations with Ghanaian medical students and spent time with house officers and midwives in a variety of clinics. Despite the fact that, throughout most of their stay, doctors and pharmacists were on a nationwide strike, several doctors at Korle-Bu continued to teach, perform deliveries, and manage other emergent care. The students were exposed to both normal and complicated deliveries, training in the provision of long-term family planning methods, and issues associated with Ghana’s National Health Insurance program. They were also able to participate in a 2-day family planning conference in Accra.

“In no small part because of this rotation, I’ve committed to doing the policy and advocacy track in my residency program, as this will allow me to delve quickly into the heart of those issues that affect my patients and the type of care I can provide.”

– M4 Morgan Mihok
April 2013 Trip to India Builds Momentum for the Obama-Singh 21st Century Knowledge Initiative

On a visit to India in April 2013, a group led by Dr. Larry Gruppen, Josiah Macy, Jr., Professor of Medical Education and Chair of the Department of Medical Education, engaged with nearly 20 collaborators from Maharsha University of the Health Sciences (MUHS) and other Indian institutions through a series of workshops, lectures, and presentations focused on competency-based curriculum and incorporating the use of technology-based syllabi. Members of the India team included MUHS Vice chancellor, Dr. Arun Jamkar, and Dr. Payal Bansal, Division Centre Head of Pune University.

Other key UMMS faculty involved in this initiative and joining Dr. Gruppen on this delegation were Drs. J. Thomas Fitzgerald and Patricia Mullen (Medical Education), Dr. Monica Lypson (Internal Medicine and Medical Education), Dr. Steven Kasten (Surgery), and Dr. Caren Stalburg (OBGYN and Medical Education). The University of Michigan Medical School is one of the few medical institutions in the US to have a department dedicated to medical education.

This initiative, among others within the University, has inspired a University-wide delegation to India to be led by President Mary Sue Coleman in November 2013. (Read more about UMMS collaborations with India on Page 65.)

UMMS Urologists Begin Collaborations In Ghana

In December 2012, UMMS Department of Urology faculty members Drs. John Park, Gary Faerber, and Humphrey Atiemo traveled to Ghana to explore the potential for collaborative work between the department and parallel units in Ghana. Most of their time was spent at two hospitals in Accra, the 37 Military Hospital and the Korle Bu Teaching Hospital.

Urology hopes to become a part of the Medical School’s ever-expanding collaboration with academic and medical institutions in Ghana, joining—among others—the Departments of Obstetrics & Gynecology and Emergency Medicine. The team will first propose a 5-year plan to establish the Michigan-West Africa Endourological Center with a vision of establishing a Michigan-Ghana Urologic Educational Collaborative. (Read more about UMMS collaborations with Ghana on Pages 54-57.)

“The Ghanaian urology faculties at both hospitals share an outstanding culture of collaboration and commitment to education and excellent care, similar to our own mission. Their leadership is outstanding, and they are highly respected in both hospital systems.”

— Dr. John Park

An April 2013 UMMS faculty trip to India was led by Dr. Larry Gruppen (second from left, front row)
Fogarty Global Health Fellowship Program

The Northern/Pacific Universities Global Health Research Training Consortium is a partnership between the Universities of Washington, Hawaii, Michigan and Minnesota. The Consortium is one of several across the United States that hosts the Global Health Fellowship Program, which is sponsored by the Fogarty International Center and several other institutes and offices of the National Institutes of Health (NIH). The Global Health Fellowship Program replaces the Fogarty International Clinical Research Scholars and Fellows Program in offering 11-month clinical research training for post-doctorate trainees and doctoral students in the health professions.

UMMS made four inaugural awards in Summer 2012, one each to a US scholar and a US fellow, and two international fellows. (See opposite page to read about UMMS student Nauzely Abedini’s experience.) UMMS will support three post-doctoral fellows in the upcoming year, including one extension from last year.

2013-2014 Fellows

**Dr. Daniel Chai Chivatsi**, Senior Veterinary Pathologist at the Institute of Primate Research in Nairobi, Kenya, will be working under the mentorship of UMMS OBYGN faculty **Dr. Jason Bell** as he studies the Olive baboon as a nonhuman primate animal model for Human Papillomavirus infection. He will conduct prevalence, pathology, and infectivity studies in wild-caught animals in Kenya.

**Dr. Ching-Ping Lin**, Senior Fellow in the Institute of Translational Health Science at the University of Washington, has received an extension on her award to continue working on the Pinggu Metabolic Disease study under a University of Michigan and Peking University collaboration. The study aims to explore genetic and environmental factors affecting Chinese populations with Type II diabetes, metabolic syndrome, and non-alcoholic fatty liver disease and to explore the interaction between genetic and environmental factors for these diseases.

**Dr. Rockefeller Oteng** was awarded an 11-month fellowship at the Komfo Anokye Teaching Hospital (KATH) in Kumasi, Ghana. Dr. Oteng, who is an instructor in the Department of Emergency Medicine at UMMS, hopes to show that the introduction of Emergency Medicine as a specialty at KATH has made a difference in patient outcomes. He intends to set up a trauma/injury database and perform a systematic review with an eye towards salvageable deaths.
Nauzley Abedini, 2012-2013 Fogarty Global Health Fellow

As a recipient of an 11-month fellowship from the Fogarty International Center of the National Institutes of Health, UMMS student Nauzley Abedini worked with UM mentor Dr. Cheryl Moyer and a team of Ghanaian mentors to conduct a study of the factors influencing identification and presentation of neonatal jaundice in one community hospital outside Kumasi, Ghana. Some of her accomplishments are listed below:

- A retrospective chart review was conducted from Oct - Nov 2012. Data were collected on all 944 admissions to the Suntreso Hospital Mother and Baby Unit (MBU) from June 2011 - Sept 2012.
- A prospective study was conducted from Jan - May 2013 in order to assess biological and sociocultural risk factors for neonatal jaundice. Out of the 274 admissions during the study period, 235 mothers consented to participate in the study. Analysis of these data is currently underway.
- 30 qualitative interviews were completed with mothers of babies on the Mother Baby Unit. Interviews have been transcribed and coding is currently underway.
- Two abstracts with preliminary results regarding maternal knowledge of neonatal jaundice have been accepted for poster presentation at the following venues: (a) the International Congress for Pediatrics, hosted by the International Pediatric Association in Melbourne, Australia, held in August 2013; and (b) the annual meeting of the American Academy of Pediatrics in Orlando, Florida, held in October 2013.

“Having the opportunity to work as a Fogarty Scholar in Ghana was one of the most transformative and impactful experiences of my life. I learned to navigate the unique intricacies of doing research in a foreign, resource-limited setting. My passion for global health research was augmented by witnessing the devotion and diligence demonstrated by my collaborators; they epitomized the perseverance, creativity, and pragmatism that are so central to global health work and served as incredible role models for me. As a result, I now understand the centrality and importance of building and maintaining strong, balanced collaborations with local partners when conducting global health research, and I will work diligently to do so in my future global health endeavors.”

— M4 Nauzley Abedini, Kumasi, Ghana, June 2012
Visiting Fellows and Scholars

July 2012–June 2013

- 27 international fellows and scholars
- 10 different countries (see map)
- 12 UMMS host units
- 50 total months of collaboration

Dr. Chun Chang (Sept 17, 2012–Sept 30, 2013)
Peking University Health Science Center, Beijing, China
U-M host: Pulmonary Medicine (Dr. Gary B. Huffnagle)

Dr. Yutaka Nakano (Sept 23–29, 2012)
Okayama Central Hospital, Okayama, Japan
U-M host: Family Medicine (Dr. Mas Jimbo)

Dr. Yuri Okazaki (Sept 29–Oct 14, 2012)
Beppu Medical Center, Oita, Japan
U-M host: Family Medicine

Dr. Ning Ji (Oct 3, 2012–Aug 31, 2013)
Peking University Health Science Center Sixth Hospital, Beijing, China
U-M hosts: Joint Institute for Translational and Clinical Research and the Medical Innovation Center (Dr. James Geiger)

Dr. Maja Jakinouska (Aug 21–Nov 30, 2012)
Dr. Aleksander Stojkouska
Ss. Cyril & Methodius University, Skopje, Macedonia
U-M host: Radiology (Dr. Jadranka Stojanouska Nojkoua)

Dr. Vedran Velagic (Sept 7, 2012–Feb 28, 2013)
University of Zagreb Medical School Cardiovascular Center, Croatia
U-M host: Internal Medicine, Division of Cardiology as the first Stevo Julius, MD Visiting Scholar awardee

Dr. Tomohiro Tanikawa (Sept 9–15, 2012)
Okayama Central Hospital, Okayama, Japan
U-M host: Family Medicine (Dr. Mas Jimbo)

Dr. Nozomu Otaka (Sept 16–22, 2012)
Okayama Central Hospital, Okayama, Japan
U-M host: Family Medicine (Dr. Mas Jimbo)
Dr. Ama Tamatey (Oct 7–Dec 14, 2012)
University of Ghana Medical School, Accra, Ghana
U-M host: Obstetrics & Gynecology

Dr. Paul Andres Abarca Espinosa (Oct 3–31, 2012)
Dr. Humberto Rodrigo Morales Rojas
Pontificia Universidad Católica del Ecuador, Quito, Ecuador
U-M host: Internal Medicine (Dr. John Del Valle)

Dr. Joseph Amoah Ady (Jan 5–11, 2013)
University of Cape Coast, Cape Coast, Ghana
U-M host: Obstetrics & Gynecology (Tim Johnson)

Dr. Hong Zhu (Jan 6–Mar 6, 2013)
Peking University Health Science Center, Beijing, China
U-M host: Pulmonary Medicine (Dr. Margaret Gyetko)

Dr. Tomoko Ito (Mar 2–16, 2013)
Nagoya Ekisaikai Hospital, Shizuoka Prefecture, Japan
U-M host: Family Medicine

Dr. Lin Lu (Mar 18–June 22, 2013)
Peking Union Medical College Hospital, Beijing, China
U-M host: Internal Medicine (Dr. Richard Auchus)

Dr. Martin Kloeckner (Apr 1–20, 2013)
Dr. N Costin Radu
Henri Mondor Hospital, Paris, France
U-M host: Cardiac Surgery

Dr. Andrej Perdih (Apr 22–Aug 5, 2013)
National Museum of Chemistry, Ljubljana, Slovenia
U-M host: Pathology

Dr. Kirsten Frantzen (June 8–July 6, 2013)
Borne-øg Ungdomspsykiatrisk Regionscenter, Risskov, Denmark
U-M host: Family Medicine (Dr. Michael Fetters)

Dr. Osman Balci (June 9–Aug 30, 2013)
Selcuk University, Meram Konya, Turkey
U-M host: Obstetrics & Gynecology
Visiting Students and Trainees

Priyanka Suresh (June 7–July 8, 2012)
Newcastle University, Newcastle upon Tyne, United Kingdom
U-M host: Pediatrics (Dr. Pandu Rao)

Liang Dong (July 2–Aug 30, 2012)
Yuan Liu
Shanghai Jiao Tong University, Shanghai, China
U-M host: Program in Biomedical Sciences (Dr. Weiping Zou and Dr. Kenneth Pienta)

Huaccong Wen (July 14–28, 2012)
Nanjing Medical University, Nanjing, Jiangsu Province, China
U-M host: Physical Medicine & Rehabilitation (Dr. Andy Haig)

Cynthia Doreen Nti-Awusi (July 20–Aug 17, 2012)
University of Cape Coast School of Medical Sciences, Cape Coast, Ghana
U-M host: Obstetrics and Gynecology

Raouf Ahmed (July 30–Aug 26, 2012)
St. George's University, London, England
U-M host: Plastic Surgery (Dr. Adeyiza Momoh)

Peking Union Medical College, Beijing, China (Aug 12–30, 2012)
Ning Chang
Ning Ding
Qin Wang
U-M host: Radiology

Kwame Nkrumah University of Science and Technology School of Medical Sciences, Kumasi, Ghana (Aug 17–Sept 14, 2012)
Akosua Asieduawaa Adu-Koranteng
Joshua Oppong Ampadu
Arwen Julie Insaidoo
U-M host: Obstetrics & Gynecology

Kyoto University Faculty of Medicine, Kyoto, Japan
U-M host: Endocrinology (Dr. Tae-Hwa Chun)

Monisha Shammugasundaram (Sept 1–28, 2012)
University of Birmingham, Birmingham, England
U-M host: Nephrology (Dr. Panduranga Rao)

University of Ghana Medical School, Accra, Ghana (Nov 12–Dec 7, 2012)
Edem Kwashie Dadoza
Victor Ekow Eduam Ekom
Grace Gyimah-Boateng
Kofi Darkwa Seffah
Anita Momo Tibboh
U-M host: Obstetrics & Gynecology

Four students from Peking University Health Science Center (PUHSC) are shown during the PUHSC-UMMS Joint Institute Symposium with Dr. John Carethers, John G. Searle Professor of Internal Medicine. Yiyun Shi, Wenhan Weng, Fengyuang Yu, and Mengdie Chen (left to right) participated in a one-month elective in the Departments of Internal Medicine and Surgery.
Visiting Students and Trainees

July 2012 – June 2013

• 50 international students and trainees
• 10 different countries (see map)
• 22 UMMS host units
• 64 months of training

University of Ghana Medical School students spent a month in the OBGYN department under the mentorship of Dr. Timothy Johnson. Left-right are Edem Dadoza, Grace Gyimah-Booteng, Victor Ekem, Anita Tibboh, and Kofi Seffah.

Koji Nakajima (Feb 6–Apr 6, 2013)
Kyoto University Faculty of Medicine, Kyoto, Japan
U-M host: Endocrinology (Dr. Tae-Hwa Chun)

John George (Feb 7–Apr 16, 2013)
All India Institute of Medicine, New Delhi, India
U-M hosts: Internal Medicine and Pediatrics

Jessica Pettersson (Feb 8–Mar 10, 2013)
Göteborg University, Göteborg, Sweden
U-M host: Pediatrics

Tinuade Okoro (Feb 10–Mar 7, 2013)
University of Ghana Medical School, Accra, Ghana
U-M host: Obstetrics & Gynecology

Tatsushi Yokoyama (Feb 10–Apr 7, 2013)
University of Tokyo, Tokyo, Japan
U-M hosts: Family Medicine and Neurology

Ryo Karakawa (Feb 22–Apr 7, 2013)
University of Tokyo, Tokyo, Japan
U-M hosts: Emergency Medicine, Family Medicine, and Urology

University for Developmental Studies School of Medicine and Health Sciences, Tamale, Ghana (Mar 8–Apr 5, 2013)

Vera Achiaa-Darko
Jemima Amo-Tachie
Joseph Kebo Awindago
Clarence Basogloyele
Haruna Osman
U-M hosts: Obstetrics & Gynecology and Surgery

Ningxin Wan (Mar 8–Apr 8, 2013)
Peking Union Medical College, Beijing, China
U-M host: Cardiology

Sandra Gjorgeva (Mar 8–May 5, 2013)
Ss. Cyril & Methodius Medical School, Skopje, Macedonia
U-M hosts: Pediatrics and Rheumatology

Gorjan Krstevski (Mar 9–Apr 6, 2013)
Ss. Cyril & Methodius Medical School, Skopje, Macedonia
U-M host: General Medicine

Ryo Kazama (Mar 22–Apr 22, 2013)
Kyoto University Faculty of Medicine, Kyoto, Japan
U-M host: Endocrinology (Dr. Tae-Hwa Chun)

Ayumi Ueki (May 6–18, 2013)
Gifu University, Gifu, Japan
U-M host: Family Medicine

Yumi Okuyama (May 20–June 14, 2013)
Hamamatsu University School of Medicine, Hamamatsu City, Japan
U-M host: Family Medicine

Edmond Atindaana (July 9–Dec 20, 2013)
University for Developmental Studies – Faculty of Applied Sciences, Navrongo, Ghana
U-M host: Microbiology and Immunology (Dr. Alice Telesnitsky)

Richard Hayes (June 14–July 21, 2013)
Swansea University, Swansea, England
U-M host: Internal Medicine (Dr. James Ferrara)

Pablo Sosa (right) is a final year medical student at Cuyo National University – School of Medicine in Mendoza, Argentina who participated in a clinical elective in the Department of Neurosurgery. He is shown with neurosurgery resident Dr. Luis Savastano.
Many UMMS faculty have longstanding relationships with colleagues from medical schools across the globe. These working partnerships pave the way for other researchers who are expanding their work into the global health arena, and for medical students looking to gain educational, clinical, and research experiences abroad.

Over time, these partnerships grow into a collaborative network of individuals and groups working on sustainable global health projects that support the UMMS global engagement initiatives and help build capacity in low-resource areas. Global REACH facilitates such synergistic partnerships through “platforms for collaboration.”

Ideal Collaboration Platforms foster multi-dimensional translational science — crossing traditional departmental and disciplinary lines to enable innovative research and educational opportunities.

Photo: Participants gather at the 2012 Symposium of the University of Michigan Health System-Peking University Health Science Center Joint Institute for Translational and Clinical Research
Introduction

Global REACH Collaboration Platforms maximize partnership strengths through a team approach of jointly defined objectives, program design and implementation, and defined pathways for future engagement. Through formal Letters of Agreement and Memoranda of Understanding, the Medical School and its partners build structured educational experiences for medical students and provide research opportunities that serve partner institutions equally and yield results greater than what could be achieved separately.

The Medical School currently holds 22 Memoranda of Understanding with partner institutions, five of which are new this year. For a complete list, please see globalreach.med.umich.edu/collaboration.mou.

“As much as we teach, we must also learn. International collaborations increase our understanding of the world to better prepare tomorrow’s global citizens.”
— University of Michigan President Mary Sue

Dr. Gary Hammer named Inaugural Ambassador in the Endocrine Society Exchange Program

Gary Hammer, MD, PhD, Millie Schembechler Professor of Adrenal Cancer, was named as the first selectee in the newly-created Ambassador Exchange Program of the Endocrine Society. Dr. Hammer and Dr. Tobias Else, Clinical Lecturer, Endocrinology and Internal Medicine, visited the King Edward Hospital in Mumbai, India during January and February 2013, where they were hosted by Dr. Nalini Shah, Dr. Hammer’s counterpart in the Ambassador exchange. Dr. Shah and her team’s visit to Ann Arbor took place during Summer 2013.

The new Ambassador Exchange program is an international pilot program that will establish collaborative relationships between leading medical centers in the United States and international medical centers serving indigent populations. Reports from the exchange visits were included in the Endocrine Society 2013 meetings in San Francisco, June 15-18.

Dr. Hammer will be a part of the University of Michigan delegation visiting India in November 2013 to continue the work begun under the Exchange Program.
Anonymous Gift Brings Family Planning Training to Ethiopia

The University of Michigan, in association with St. Paul Hospital Millennium Medical College (SPHMMC) in Addis Adaba, has launched Ethiopia's first formal training program in family planning. Made possible by the generous support of an anonymous donor, this two-year, $1.5M project is establishing a three-prong training program to improve and expand the provision of family planning and comprehensive abortion services in Ethiopia through the targeted education and team training of midwives, general medical practitioners, OBGYN residents and SPHMMC faculty.

The project is led by Dr. Senait Fisseha, Associate Professor in the Department of Obstetrics and Gynecology, Division Director of Reproductive Endocrinology and Infertility, and Medical Director at the Center for Reproductive Medicine at UM Health Systems. The U-M training team includes Drs. Vanessa Dalton and Jason Bell (both from OBGYN), Dr. Jody Lori, Clinical Assistant Professor in the School of Nursing, Dr. Cheryl Moyer, Research Investigator in Medical Education and Managing Director of Global REACH, and Sarah Rominski, Senior Research Associate at Global REACH. Dr. Lia Tadesse, Vice Provost for Medical Services at SPHMMC, leads the Ethiopia partnership team. (Read more about UMMS work in Ethiopia on page 64).

The project has three key objectives:
1. Mainstream family planning training by developing competency-based training specific to Ethiopia and integrating it into the medical curriculum at SPHMMC;
2. Improve Midwifery and OBGYN family planning expertise in clinical competencies and teaching skills to ensure high-level, competency-based family planning education and training in Ethiopia; and
3. Mentor OBGYN residents and faculty through the development of operational and health services research and build research capacity.
The University of Michigan (U-M) Department of Emergency Medicine (EM) has been working with Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana to develop and implement clinical training for EM physicians since 2007. The Medical Education Partnership Initiative (MEPI), a five-year grant from the NIH that began in 2009, expanded the clinical training program to include research capacity development and interdisciplinary training of emergency medicine nurses as well as physicians. The Ghana-Michigan MEPI program now includes partnerships with KNUST, Komfo Anokye Teaching Hospital (KATH), the Ghana College of Physicians and Surgeons, the Ghana Ministry of Health/Ghana Health Services, and the Ghana Ambulance Service. MEPI is led by Principal Investigator, Professor Peter Donkor, former Pro Vice-Chancellor, KNUST. Dr. William Barsan, Professor and former Chair of the Department of Emergency Medicine, serves as lead from U-M.

Progress and Milestones

- **Increase Capacity**: 6 residents have graduated as specialists, attained Ghana College of Physicians & Surgeons membership status, and have leadership positions; 14 residents in training; 8 residents have participated in emergency medicine rotations at UMMS and other medical institutions; One-year Diploma in Emergency Nursing curriculum developed and approved by KNUST; 26 admitted nursing students: 18 from KATH, 8 from other hospitals across the country; Medical school curriculum developed for 4th- and 6th-year students; 266 medical students trained

- **Promote Retention**: Residents trained in professionalism, administration, and emergency department operations; Residents trained as trainers are currently involved in teaching junior residents and medical students; all retained

- **Promote Research**: Didactic lectures on research methodology and general conduct of research integrated in resident and nursing training; all residents conducting locally-relevant research projects; 6 residents attended the 2011 Emergency Medicine Society of South Africa Conference; 10 residents presented posters at the African Conference on Emergency Medicine held in Accra in October 2012

- **Improve Collaboration**: One South African faculty and 4 residents are being trained; Standard Operating Procedures for HIV care in the emergency department and for residents developed and 90 health care workers at KATH trained; research on HIV related emergencies and health worker attitudes designed and ethical clearance obtained; 37 lectures for the various resident, nursing, and medical student training programmes converted into Open Education Resource format; simulation components procured to equip simulation laboratory being established; data on the current EM service in the Ashanti Region captured

**Project Goals**:

- Increase Capacity
- Promote Retention
- Promote Research
- Improve Collaboration

**Ghana-UM Emergency Medicine Partnership**

Medical Education Partnership Initiative (MEPI) collaborators shown at the Summer 2013 meetings (left to right): Dr. Rockefeller Oteng, Ghana Emergency Medicine Collaborative Resident Eszther Momade, Dr. William Barsan (UMMS lead), Nadia Tagoe (Ghana Program Manager), Dr. Peter Donkor (Ghana PI), Jamila Yakubu (UMMS Program Manager), Dr. George Oduro, Dr. David Ofori-Adjei, Dr. Joseph Kolars
Building an Academic Infrastructure to Train 1000 OBGYNs in Ten Years

In 2012, Dr. Frank Anderson, Associate Professor of Obstetrics and Gynecology (OBGYN), received a Flora Foundation award for a one-year planning grant to improve maternal health and reduce maternal mortality through training obstetricians. Using lessons learned from other partnerships within his department and his long-term relationships with his own international collaborators, Dr. Anderson began to engage other US academic OBGYN programs to make similar long-term commitments to sub-Saharan Africa (SSA) academic OBGYN programs. He used the award to convene several national leaders from SSA and the US, all intent on discussing ways to increase professional OBGYN capacity as a means to improving maternal health in the region.

The meeting was held in Rome, Italy, concurrent with the 2012 International Federation of Gynecology and Obstetrics (FIGO) World Congress and opened the first-ever dialogue among African OBGYNs on ways to improve maternity care by improving specialist-level obstetric care capacity. OBGYN leaders from 10 SSA countries (The Gambia, Cameroon, Liberia, Zambia, Kenya, Uganda, Malawi, Rwanda, Ghana, and Ethiopia) gathered with representatives from OBGYN departments of nine North American universities to discuss the status of postgraduate OBGYN training in SSA. Participants also included representatives from professional organizations such as the American College of Obstetricians and Gynecologists, FIGO, the American College of Nurse Midwives, and the Centers for Disease Control and Prevention.

Next Steps Include:
- Creating an African College or similar association to improve women’s health in Africa
- Building partnerships between SSA medical schools and American academic OBGYN departments willing to work together to create or build on functioning departments and existing training programs
- Establishing a consortium of American OBGYN departments interested in supporting the creation of OBGYN programs in SSA
The University of Michigan has a vibrant, long-standing relationship with many institutions in Ghana, including the University of Ghana and its affiliated Korle Bu Teaching Hospital, the Kwame Nkrumah University of Science and Technology and its affiliated Komfo Anokye Teaching Hospital, the University of Cape Coast, the University of Development Studies, the Ghana Health Service and the Ghanaian Ministry of Health. These relationships date back to the 1980s, when Dr. Timothy Johnson, Chair of the Department of Obstetrics & Gynecology at UMMS, partnered with Ghanaian colleagues to develop an in-country post-graduate training program for Obstetrician/Gynecologists that is still going strong today. Much of that strength comes from the retention of 83/85 graduates still practicing or holding leadership positions in Ghana.

The doors opened by Dr. Johnson have led to the development and ongoing growth of a Ghana-Michigan Platform of Engagement. The Ghana-Michigan Platform is hallmark by a variety of activities that span departments, disciplines, institutions, and even philosophical approaches to addressing global health challenges and tackling health disparities. Below are just a few examples of the many Ghana-Michigan activities that occurred in 2012-2013.

**Research Program Highlights**

- **Northern/Pacific Global Health Research Fellows Training Consortium**
  Funding in Summer 2012 by the Fogarty International Center, this five-year grant supports the research training of postdoctoral fellows from the health science fields. The University of Michigan (U-M) is a member institution in the Northern/Pacific Universities Global Health Research Training Consortium, which is one of several partnerships across the United States that hosts the Global Health Fellowship Program. Dr. Joseph Kolars and Dr. Cheryl Moyer serve as leads for U-M. (See Pages 42-43 for more information.)

- **Ghana-Michigan Postdoctoral and Research Trainee NeTwoRk - Investing in Innovation (PARTNER II)**
  Dr. Tom Robins (PI), School of Public Health and UMMS, and Dr. Cheryl Moyer (co-I), Global REACH, received a 5-year grant from the Fogarty International Center at the National Institutes of Health to enhance global health research training among Ghanaian and US post-doctoral fellows. The first cohort of fellows, two from Ghana and one from Michigan, arrived in Ann Arbor in August 2013 and will spend 6 months in Ann Arbor followed by 6 months in Ghana focusing on interdisciplinary approaches to addressing occupational and environmental health challenges in Ghana. Ghanaian PARTNER institutions include: University of Ghana, Korle-Bu Teaching Hospital, Noguchi Memorial Institute for Medical Research, KNUST, Komfo Anokye Teaching Hospital (KATH), and the Ministry of Health/Ghana Health Service.
• Stillbirth, Maternal Mental Health, and Neonatal Care

Dr. Katherine Gold has been working with colleagues at the Komfo Anokye Teaching Hospital on several projects related to stillbirth, maternal mental health, and neonatal care. In both 2011 and 2012, Dr. Gold took small groups of first-year medical students to Ghana as part of Global REACH’s Faculty-led Program for M1s. Building on data collected in 2011 on maternal mental health among mothers with infants in the neonatal intensive care unit in Kumasi, students in 2012 paired up with Ghanaian medical students to follow-up with those mothers. This involved traveling into the community and re-interviewing mothers to assess mental health, infant health, and the mother’s experiences of their hospital stay. (Read more on Page 7.)

Dr. Gold has also been working with Dr. Abdul-Razak, an obstetrician-gynecologist at KATH, conducting a study on stillbirths to identify risk factors and causes of death. Over a one-year period, they collected detailed information about 467 third-trimester stillbirths at the hospital. Dr. Gold was recently selected by the Institute of Medicine (IOM) as the James C. Puffer Anniversary Fellow in family medicine and hopes to continue her work in global maternal child health through this part-time fellowship at IOM.

• Ghana-Michigan Emergency Medicine Partnership (MEPI)

The Medical Education Partnership Initiative (MEPI) is an NIH-funded program to enhance medical education in Africa. The 5-year MEPI program (2009 – 2014) has expanded the clinical training program to include research capacity development and interdisciplinary training that includes emergency medicine nurses as well as physicians. MEPI is led by Principal Investigator, Professor Peter Donkor, former Pro Vice-Chancellor, KNUST. Dr. William Barsan, Professor and former Chair of UM’s Department of Emergency Medicine, serves as lead from UMMS. (See Page 52 for more information.)

• International Family Planning Fellowship Program (IFPPF)

In 2012, IFPPF, the first African subspecialty training program in family planning transitioned from an extramurally funded endeavor to a program funded by Ghanaian institutions. Led in part by Dr. Vanessa Dalton, Associate Professor, Department of Obstetrics and Gynecology, the program provides additional clinical, research, and leadership training in the area of family planning. To date, 5 fellows have completed the training program, 3 are currently enrolled, and 2 have been accepted to begin the program in January 2014. Graduates of the program are in various leadership positions throughout Ghana and have led the implementation of new family planning services at their institutions.
• **Adult and Pediatric Sickle Cell**  
  **Andrew Campbell, MD**, Assistant Professor of Pediatrics, has been working with colleagues at the University of Ghana/Korle Bu Adult and Pediatric Sickle Cell Clinic for the past 6 years and Princess Marie Louise Children’s Hospital in Accra for the past year on projects related to determining the sickle cell disease phenotype within the Ghanaian population. Dr. Campbell’s collaborative efforts in Ghana have involved the participation of 12 students over the past 6 years, including 2 medical students and 2 MPH students. Dr. Campbell’s primary collaborators in Ghana include **Dr. Onike Rodrigues**, **Dr. Fredericka Sey**, and **Dr. Eric Sifah**.

• **Factors Affecting Motivation for Rural Practice Among Midwifery Students in Ghana**  
  **Dr. Jody Lori**, Assistant Professor of Nursing, and **Sarah Rominski**, MPH, Senior Research Associate at Global REACH are working with a team of investigators in Ghana to understand factors influencing third-year Ghanaian midwifery students’ willingness to work in rural areas. The study takes place in the 16 public midwifery schools in Ghana and includes 700 third-year midwifery students about to graduate and enter the workforce. The study, funded in part by a small grant from the African Social Research Initiative at the University of Michigan, will enable the Ghanaian Ministry of Health to create and test incentive packages for midwives and will provide a framework from which the preferences of other cadres of health workers can be assessed.

• **Stillbirth and Early Neonatal Deaths in Northern Ghana (SANDS)**  
  **Dr. Cheryl Moyer**, Managing Director of Global REACH and Assistant Professor in the Department of Medical Education, worked with partners in northern Ghana and the US to combine quantitative data from the Navrongo Demographic Surveillance Site and qualitative data from interviews with more than 250 community members and healthcare providers to explore the prenatal, perinatal, and postnatal periods in rural northern Ghana. The SANDS team – now dubbed the Navrongo Maternal and Neonatal Health Consortium – has published six manuscripts from the resulting data with another four under review.

• **Addressing Maternal Mortality**  
  **Dr. Frank Anderson**, Associate Professor of Obstetrics and Gynecology, is working with colleagues in Ghana on several initiatives aimed at reducing maternal mortality. These include studies of preeclampsia for the development of clinical, policy, and technological interventions to improve detection at the community level, the use of magnesium sulfate at rural and district levels, and the use of fetal assessments at the district and teaching hospital levels. In addition, Dr. Anderson has supervised students from the Minority and Health Disparities International Research Training Program (MHIRT) who have worked with the district medical officer in the Botsomtwe District of the Ashanti Region of Ghana to implement active surveillance of maternal mortality to replace the current system of voluntary reporting.
Ghana Platform

• Physical Medicine & Rehabilitation

Approximately ten years ago, Dr. Andy Haig and colleagues took an exploratory trip to Ghana that led to the creation of the Ghana Medical Rehabilitation Group. At the time, there were only six rehabilitation doctors in Sub-Saharan Africa and the use of more than 50 languages made it difficult to measure disability. The group developed scholarships to train physical therapists and created the Language Independent Functional Assessment (LIFE), which has now been validated on four continents and has shown that the prevalence of disability exceeds previous estimates. They have recently developed a proposal with Ghanaian policy makers to have a rehabilitation facility added to the Komfo Anokye Teaching Hospital (KATH). Two Ghanaian/American medical students, who have been mentored through their residencies in PM&R, will be taking the lead in Ghana.

• Access to Family Planning Services

Sarah Rominski, MPH, Senior Research Associate at Global REACH, is working with colleagues in Ghana to explore the issues surrounding access to abortion care. With a small grant from the African Studies Center, she is conducting qualitative interviews with women seeking comprehensive abortion care or care for post-abortion complications, as well as healthcare providers and community members in and around Kumasi, Ghana. The goal is to investigate the reasons women choose to bypass the formal healthcare system and seek abortion services from untrained providers in unsafe locations, causing unnecessary death and disability.

• Ethnic Differences in Triple Negative Breast Cancer

Dr. Lisa A. Newman, Professor of Surgery and Director, University of Michigan Breast Care Center, has focused much of her career on understanding the relationship between African ancestry and triple negative breast cancer. Dr. Newman was recognized for this work when she was chosen as one of The Detroit News’ Michiganders of the Year for 2012. (See Page 10 for more information.)
The University of Michigan Medical School (UMMS) has a long history of clinical, educational, and research initiatives with Chinese partners, both at the individual and the institutional level. Much of the Medical School’s collaborative work with China focuses on the Joint Institute (JI) for Translational and Clinical Research, a partnership between the University of Michigan Health System (UMHS) and the Peking University Health Science Center (PUHSC), which was established in 2010. Other initiatives exist, however, and are equally important in developing and sustaining the rich clinical, educational, and research partnerships between the Medical School and educational institutions throughout China.

FY2012-2013 China Platform Highlights

- Several UMHS delegations traveled to China over the past year including a trip to celebrate the 100th anniversary of PUHSC, one of the most prestigious medical institutions in China. At this event, PUHSC leaders hosted more than 150 partners from around the world. Dr. James Woolliscroft, Dean of the University of Michigan Medical School, served as a speaker for the President and Dean’s Forum.
- The University of Michigan signed a Memorandum of Understanding with PUHSC establishing a collaborative MD/PhD program. Eight students were accepted for summer 2013 research rotation, six within the Medical School: Dingran Wan, Jingnan Han, Wanyu He, Si Cheng, Jiuling Yang, and Haocheng Lu.
- Leaders from Shanghai Jiao Tong University (SJTU) came to Ann Arbor to participate in the 2013 University of Michigan-Shanghai Jiao Tong University Joint Symposium.
- A commission from Beihang University visited the Medical School and health system facilities to explore collaborations similar to the UMHS-PUHSC Joint Institute and to build on the synergies already established with the U-M Department of Biomedical Engineering.
- Members of the Tianjin China Centers for Disease Control and Prevention visited the U-M School of Public Health to re-sign a Memorandum of Understanding outlining formal collaborations.
- Global REACH hosted faculty, students, and delegations from PUHSC, Peking Union Medical College, Shanghai Jiao Tong University, Nanjing Medical University, Handan City Government, and Shandong University Medical School.
- Four students from SJTU are enrolled in University of Michigan Program in Biomedical Sciences doctoral programs: Yangyang Bao, Congzhen Qiao, Bo Wang, and Linbo Zhao.
UMHS-PUHSC Joint Institute for Translational and Clinical Research

The Joint Institute for Translational and Clinical Research between the University of Michigan and the Peking University Health Science Center (PUHSC) was formalized in 2010. The two institutions created an organizational structure, established key research programs, and developed a strategic plan designed to encourage research collaborations among their faculty and maximize their capacity for translational research through synergistic collaborations areas of interest to both institutions.

Four research programs (cardiovascular, liver, pulmonary, and renal diseases) and three infrastructure ‘cores’ currently exist within the JI Platform (see figure at right and more information on the following pages). Each program and core are co-led by a faculty member from UMMS and PUHSC, with similar teams working on specific foci areas within each program. Overall JI leadership responsibility belongs to Dr. Joseph Kolars, Senior Associate Dean for Education and Global Initiatives, UMMS, and Professor Weigang Fang, Vice President, PUHSC. They are advised by an Executive Board and an Executive Committee. Dr. Amy Huang serves as the Program Director of the China Platform within the U-M Medical School.

FY2012-2013 Joint Institute Highlights

- PUHSC completed its first year as a host and training institution for fellows of the Fogarty Global Health Program for Fellows and Scholars (see Page 46). One of the two fellows has completed her training, the other has been funded for a second year.
- In November 2012, UMMS hosted the JI’s 2nd Annual Symposium, which was attended by a delegation of more than 50 from China (see Pages 68-69). The next JI symposium will be held in Beijing, October 9-11, 2013.
- Co-directors, Dr. Kolars and Professor Fang were invited to present an overview of the Joint Institute at the national meetings of the American Association of Health Centers in Washington, DC, in April, 2013.
- The 8th Semi-Annual National Heart, Lung, and Blood Institute (NHLBI) Global Health Centers for Excellence Steering Committee meeting was held in Beijing. Members of the JI were invited speakers presented overviews of the JI, its three cores, the progress of JI pulmonary program, and a study about air pollution and cardio-pulmonary effects in contemporary China. Dr. Cristina Rabadán-Diehl, Acting Director of the Office of Global Health for the NHLBI served as Chair of the meeting.
- Three UMMS residents from the Department of Internal Medicine completed clinical rotations in China on specific learning projects. Drs. Alexander Katz and Mark Benson were hosted by the cardiology groups at PUHSC First and Third Hospitals respectively. Dr. Randy Sweis, who was comparing the operations of large hospital systems in the US and China, was also hosted by First Hospital.
- Seven UMMS students participated in research projects or clinical rotations over the past year, including four M4 students and three M1 students (see Pages 30-33 and Page 36).
- A Call for Proposals for new JI projects was released in Winter 2013. Awarded proposals are shown on Page 61.
Cardiovascular Disease Program
This program offers a unique opportunity for leading researchers to study cardiovascular disease in a large, genetically diverse patient population. Overall leadership is shared by Dr. Eugene Chen, Professor of Internal Medicine, UMMS and Professor Wei Gao, Chair of Cardiovascular Medicine, PUHSC Third Hospital. Focusing on three areas (blood pressure genetics, dysfunctional HDL, and myocardial infarction), JI researchers study the role genetics play in the development of risk factors, such as high blood pressure, as well as in the onset of cardiovascular diseases, including myocardial infarction, abdominal aortic aneurysm, and coronary artery disease. They are systematically studying the genetics and biology related to HDL, or “good” cholesterol, to identify new strategies for effectively raising HDL in patients. CVD program: More than 3000 patients have been enrolled and over 10,000 patient samples have been identified for genotyping. HDL: Two PUHSC trainees completed their year-long placement at UMMS; a joint publication came out in PLoS One during November. Blood Pressure Genetics: PUHSC trainee Yang Yang has just begun a 12-month placement at UMMS, a UMMS resident did a one-month placement at PUHSC, and will now spend a year training in Dr. Ganesh’s lab.

Liver Disease Program
This collaboration provides scientists at UMHS and PUHSC the opportunity to undertake rigorous, translational research that should significantly improve patient care. Led by Dr. Chung Owyang, Division Chief and Professor of Gastroenterology, UMMS and Professor Lai Wei, Director of the Hepatology Institute and Department of Hepatology, PUHSC Second Hospital, this program focuses on treating and preventing Hepatitis C virus (HCV) and documenting the progression of fatty liver generation and its subsequent progression to cirrhosis and liver failure. HCV: 1300 patients have been enrolled; two abstracts have been submitted to the American Association for the Study of Liver Diseases annual meetings; and external funding has been obtained to continue the study. Fatty Liver: A pilot of the first study has been run and full collection of data is proceeding; investigators participated in the 2013 Peking University Diabetes Forum in May 2013; the group has hosted and mentored a year-long Fogarty Fellow, Dr. Xiuying Zhang at PUHSC.

Pulmonary Disease Program
Dr. Margaret R Gyetko, Professor of Internal Medicine Associate Dean for Faculty Affairs, UMMS, and Professor Bei He, Professor and Director, Department of Respiratory, PUHSC Third Hospital, co-lead the JI’s Pulmonary Disease Program. Their work focuses on building a new area of COPD research, investigating the role that the respiratory microbiome plays in the development and clinical course of lung disease, specifically COPD. The National Heart, Lung, and Blood Institute (NHLBI) has funded a COPD microbiome supplement grant with Dr. Margaret Gyetko as PI. International sites include PUHSC, Nepal, Bangladesh, and Peru. The funding is through the United Health and NHLBI Collaborating Centers of Excellence, and is part of the NHLBI Global Health Initiative.

Renal Disease
This new JI research program is co-lead by Dr. Matthias Kretzler, Professor of Nephrology, Internal Medicine, UMMS, and Professor Haiyan Wang, Professor of Nephrology, PUHSC First Hospital. The UMHS and PUHSC renal divisions are at the forefront of translational glomerular disease research in the US and China and have joined forces to address the most urgent unmet need in the field, which is early and accurate identification of patients at high risk to progress to end stage renal disease for targeted treatments. The JI renal programs strive to develop non-invasive molecular markers to allow early detection of patients at high risk for progression, and identify molecular pathways that bridge the genotype-phenotype gap to determine molecular mechanisms driving chronic kidney disease progression, which will then be used as targets for future interventional trials. The newly funded pilot study aims to generate preliminary data to target scarce resources for high-risk patients thereby contributing to improvement of patient care and decreasing financial burdens in both US and China.

Biorepository and Biomedical Informatics (BRBI) Core
The BRBI Core is responsible for establishing and maintaining a standardized process for securing and storing biological specimens and clinical data that support JI research. In addition, the Core provides a technical infrastructure for data management and sharing of translational and clinical research. All JI programs and investigators are required to follow the standards established by this core. Leadership is shared by Dr. Kai Zheng, Associate Professor, School of Public Health Department of Health Management and Policy, and Professor Yanfang Wang, Associate Director, Peking University Clinical Research Institute.

Hepatitis C Virus collaborators at a 2012 meeting

UMMS collaborators on the new JI Renal Disease Program include (left to right) Dr. Celine Berthier, Dr. Matthias Kretzler, and Dr. Wenjun Ju
Collaboration Core
The Collaboration Core is led by Dr. Amy Huang, Director for China Programs, UMMS and Professor Qiudan Sun, Director, Office of International Cooperation, PUHSC. This Core was established to facilitate a collaborative partnership between the JI institutions. It tracks the collaboration needs and goals of each institution, defines measures of success, and identifies the management structures and processes that lead to favorable outcomes. In addition, the Core assists JI leadership in formulating strategies related to communication, project management, and coordination by providing advice and guidance to the programs and leadership.

Institutional Review Board (IRB) and Human Protection Core
This Core promotes the protection of human participants in all research conducted by the JI. It is led by Dr. Raymond Hutchinson, Associate Dean for Regulatory Affairs, Professor of Pediatrics & Communicable Diseases, UMMS and Professor Yali Cong, Professor, Medical Ethics Program, PUHSC. The Core comprises representatives from the internal IRBs of both universities. It reviews and monitors all JI programs and proposals, and works to ensure that research activities adhere to all applicable laws, regulations, and institutional policies for human subject research at both universities.

2013 Call for Proposals Generates Seven New JI Projects
In early 2013, a call for proposals went out to investigators working collaboratively at both JI institutions to fund pilot projects that would demonstrate an effective team approach to discovery and new findings on diseases relative to both countries, and which could be leveraged for extramural funding opportunities. Two types of awards were available: 1) Full awards of up to $400k/year for two years; and 2) Discovery awards of up to $100k/year for two years. Two full and five discovery awards were made and are shown below, beginning with the full awards.

- particulate matter air pollution and high density lipoprotein dysfunction
  Robert D Brook, MD, Associate Professor of Internal Medicine, UMMS
  Jianping Li, MD, Professor, Division of Cardiology, PUHSC First Hospital

- Molecular mechanisms of fibrosis and the progression from paroxysmal to persistent atrial fibrillation
  Jose Jalife, MD, Professor of Internal Medicine and The Cyrus and Jane Farrehi Professor of Cardiovascular Research, UMMS
  Jihong Guo, MD, PhD, Professor and Associate Director, Department of Cardiology, PUHSC Second Hospital

- Quantitative measurements of brain iron overload after intracerebral hemorrhage
  Guohua Xi, MD, Richard C Schneider Research Professor of Neurosurgery and Professor of Neurosurgery, UMMS
  Yining Huang, MD, Professor and Chair, Department of Neurology, PUHSC First Hospital

- Imaging biomarkers for staging and assessing response to therapy in multiple Myeloma
  Qian Dong, MD, Associate Professor of Radiology, UMMS
  Wei Guo, MD, PhD, Professor and Chair, Orthopedic Oncology, PUHSC Second Hospital

- Metabolic Syndrome (MetS) and the effect of neuropathy
  Eva Feldman, MD, PhD, Russell N DeJong Professor of Neurology, UMMS
  Linong Ji, MD, Professor and Chair, Department of Endocrinology, PUHSC Second Hospital

- Towards molecular prognosis of Chronic Kidney Disease (CKD) in UMMS and PUHSC
  Matthias Kretzler, MD, Warner-Lambert/Parke-Davis Professor Internal Medicine/Nephrology and Computational Medicine and Bioinformatics, UMMS
  Haiyan Wang, MD, Professor and Director, PUHSC Institute of Nephrology

- Identify smooth muscle cell specific protein as biomarkers for early diagnosis of acute aortic dissection
  Bo Yang, MD, PhD, Clinical Assistant Professor of Cardiac Surgery, UMMS
  Zhe Zhang, MD, Associate Professor and Vice Director, Department of Cardiac Surgery, PUHSC Third Hospital
University of Michigan Medical School (UMMS) faculty members have been collaborating with partners in Brazil for several decades. In recent years, UMMS has been actively strengthening its collaborations with the University of São Paulo Faculty of Medicine (FMUSP), building on a number of existing UMMS-FMUSP research programs with the aim of developing broader inter-institutional collaborations that could form the basis for a potential Joint Platform. The first official Memorandum of Understanding (MOU) between UMMS and FMUSP was signed in October 2010.

In Fall 2012, University of Michigan President Mary Sue Coleman traveled to Brazil with a delegation of U-M researchers, including several from the Medical School. There she signed collaboration agreements with FMUSP, the State of São Paulo Research Foundation (FAPESP), one of the main funding agencies in Brazil, and the University of Campinas. The new agreements aim to stimulate collaboration between U-M researchers and researchers throughout higher education and research institutions in Brazil. Several key research partnerships form the basis of the Brazil Collaboration Platform.

**UMMS-USP Key Collaborative Research Projects and Teams**

**Adrenal and Other Endocrinological Cancers and Disorders**
- **Gary Hammer, MD** (UMMS) and **Ana Cláudia Latrônico, MD** (USP); U-M’s Endocrine Oncology Program (led by Dr. Hammer) is working with USP to create a combined tumor repository/data registry, develop a telemedicine platform for information transfer, and pilot an international faculty and student exchange program.

**Endocrine Genetics Collaboration**
- **Sally Camper, PhD** (UMMS) and **Luciani de Carvalho, MD** (USP); Investigators are working on the molecular basis of congenital hypopituitarism using new tools of DNA sequencing.

**Primary Care: Health Equity and Chronic Disease Management**
- **Michele Heisler, MD** (UMMS), **Alexandra Brentani, MD**, **Marcia Nery, MD**, and **Thais Vale, MD** (USP); Collaborators are testing innovative approaches to aid community health workers in São Paulo’s low-income Western Region (Região Oeste) as they teach self-management training to patients with chronic diseases such as diabetes mellitus.

**Reproductive Endocrinology and Technology**
- **Gary Smith, PhD** (UMMS); **Edmund Baracat, MD** and **Rossana Francisco, MD** (USP); The team is implementing a Fertility Preservation Program at USP, which will provide on-site and off-site (across the entire country of Brazil) service of male and female gamete cryopreservation for individuals at risk of losing fertility due to gonadotoxic treatments for cancers, immune diseases, and transplant therapies.
Spinal Cord Injury

- **Denise Tate, PhD** (UMMS) and **Julia D’Andrea Greve, MD** (USP)
  Much of the current work in this program relates to the translation and validation of the International Bowel Function Basic and Extended Spinal Cord Injury (SCI) Data Sets, including developing a standardized dataset to allow for comparisons of clinical and research SCI data between Brazil and the US where the incidence and prevalence of SCI are among the highest in the world.

2012-2013 Platform Highlights

- **U-M President Mary Sue Coleman** led a delegation to Brazil in September 2012, signing multiple MOUs. **Drs. Gary Hammer and Michele Heisler** assisted in the planning for the trip and were part of the delegation.
- In December 2012, **Drs. Hammer and Heisler** were joined by **Drs. Joseph Kolars and Denise Tate** as they visited FMUSP partners to further develop plans for shared activities and evaluation benchmarks.
- During January 2013, **Dr. Elisa Teixeira** was hired as Coordinator of the Medical School’s Programs with Brazil. She is currently establishing student exchange programs and developing a language and culture orientation program for Brazilian and U-M students who will be participating in exchanges. She is also helping organize collaborations and a symposium with Fiocruz (more info below), and conducting a needs assessment among all current UMMS faculty working in Brazil in order to help operationalize a set of specific shared virtual seminars, trainings, and faculty exchanges, and to develop plans for meeting logistical and other support needs for shared research collaborations.
- In Winter 2013, UMMS hosted the first 4 medical students coming from FMUSP holding a “Mérito Acadêmico” (Academic Merit) scholarship.
- Three UMMS faculty were recipients of the new U-M/FAPESP, which supports the research of UMMS faculty members and their Brazilian collaborators (see Page 7 for more information).
- Groundwork has been laid so that UMMS students will be eligible to participate in educational/research experiences in Brazil beginning in summer 2014. Four UMMS students will have full scholarships to go to Brazil for their international elective. A Memorandum of Understanding with the Federal University of Bahia (UFBA) is underway and UMMS will soon begin student exchange activities.
- Much of early 2013 was spent advancing collaborations with the Rio de Janeiro’s Oswaldo Cruz Foundation (Fiocruz). This collaboration brings together researchers from both institutions working in the areas of health status, determinants, outcomes, interventions, and histories to engage in substantive and medium-range projects. There are about 30 researchers involved in the partnership. A symposium held in Rio de Janeiro in August 2013 will bring together stakeholders providing an opportunity to share research goals and implement a strategy for future work.
Nearly 20 units across the University of Michigan have collaborative projects underway with colleagues in Ethiopia, making Ethiopia one of UMMS’s emerging platforms of engagement. Most of these partnerships were facilitated by Senait Fisseha, MD, JD, Associate Professor, Department of Obstetrics and Gynecology, Division Director of Reproductive Endocrinology and Infertility, and Medical Director at the Center for Reproductive Medicine at U-M Health Systems.

Current Highlights

- March 2011, Visit from Dr. Tedros Adhanom, former Minister of Health and current Minister of Foreign Affairs, to explore collaborations with UMMS and SPHMMC
- April 2011, Visit to SPHMMC by UMMS faculty
- June 2012, Memoranda of Understanding signed with SPHMMC and Ministry of Health
- July 2012, SPHMMC OBGYN residency training program launched with 7 residents
- August 2012, family planning training integrated into medical education
- June 2013, second cohort of 14 new SPHMMC OBGYN residents accepted
- 8 Global REACH Faculty Associates from 4 UMMS departments participating in the Ethiopia Platform

Within the University of Michigan Medical School (UMMS), nearly 50 investigators from ten different departments are collaborating on projects ranging from family planning to faculty development; from organ transplant to surgical simulation; and from medical education and post-graduate training to adult and child psychiatry.

In association with St. Paul Hospital Millennium Medical College (SPHMMC) in Addis Adaba, U-M has helped launch Ethiopia’s first formal family planning training program for medical trainees. With funding from the Center for Diseases Control/Twinning Center and an anonymous foundation, UMMS started a partnership to strengthen medical education, maternal child health, and family planning in Ethiopia to meet the United Nation’s Millennium Development Goals which aim to reduce by three-quarters the number of maternal deaths and reduce by two-thirds the number of child deaths in low- and middle-income countries. (Read more about this initiative on Page 51.)

Family planning training was integrated into medical education to establish a three-prong training program at SPHMMC tailored to the unique roles and abilities of midwives, general medical practitioners, and OBGYN residents to increase the capacity of all three groups to offer safe abortion and contraception services. Incorporating this training program will enable SPHMMC to become a Center of Excellence for women’s health in Ethiopia by allowing it to team-train those groups who will, in turn, provide much-needed services when deployed to rural areas. By engaging them in team training, advocacy, and operational research. The goal is to prepare them to become family planning leaders and trainers.

With the OBGYN residency and family planning training programs underway, the collaboration between UMMS, SPHMMC, and the Federal Ethiopian Ministry of Health has greatly expanded to include a variety of different departments and schools.

(Left to right) Dr. Mesfin Araya, Provost of SPHMMC; Ms. Sarah Rominiski, Global REACH Senior Research Associate; Dr. Tedros Adhanom, Minister of Foreign Affairs of Ethiopia; Dr. Joseph Kolars, Senior Associate Dean and Director of Global REACH; Dr. Senait Fisseha, Associate Professor and lead of the Ethiopia Initiative; Dr. Lia Tadesse, Vice Provost for Medical Education, SPHMMC; Dr. Roger Glass, Director of the Fogarty International Center and Associate Director for International Research at the National Institutes of Health.
The University of Michigan Medical School (UMMS) is actively engaged in collaborative efforts with the All India Institute of Medical Sciences (AIIMS), a premier medical school located in New Delhi, India. UMMS faculty have made several visits to AIIMS over the past few years, and a Memorandum of Understanding with AIIMS was signed in 2011. In 2012, collaborations were formalized with Maharashtra University of the Health Sciences through the joint Obama-Singh 21st Century Knowledge Initiative award.

Current Highlights

- Planning is underway for the Fall 2013 University of Michigan delegation to India led by President Mary Sue Coleman. Accompanying her from the Medical School is a group of almost 20 faculty led by Drs. Joseph Kolars, Krishnan Raghavendran, and Ruma Banerjee. The large group will be traveling with the intention of extending collaborations with various universities including AIIMS and Delhi University. For the Medical School, the visit will consist of meetings between investigators from UMHS and AIIMS as well as exploratory group discussions on how best to establish a collaborative platform to advance research and education. Thirteen travel grants have been awarded by the Medical School to support faculty participation in this delegation.

- Current collaborations between UMMS and Indian institutions include such topics as identifying protein-protein interaction partners using cutting edge mass spectrometer technology, establishing biomarkers for lung cancer, studies on the antineoplastic effects of piperine and curcumin, pediatric oncology, and implementation of an open-source electronic medical record system.

- Six UMMS faculty recently participated in learning activities for the Obama-Singh 21st Century Knowledge Initiative program (collaborators are shown below) between the Medical School and the Maharashtra University of the Health Sciences. (See Page 47 for more information.)
Global REACH celebrated many events and activities over the past year: some large, some small. Along with the research and education initiatives highlighted in previous sections of this report, Global REACH supported the Medical School’s involvement in three major events and hosted the visits and tours of more than 100 dignitaries and guests from around the world.

In November 2012, the Medical School hosted the 2nd Annual Symposium of the University of Michigan Health System-Peking University Health Science Center Joint Institute for Translational and Clinical Research, welcoming a delegation of more than 50 colleagues from China.

In March 2013, a group of almost 30 members of the U-M campus traveled to Washington, DC to present at the annual meeting of the Consortium of Universities for Global Health. Later that month, we paid tribute to our friend and a former UMMS student at the Third Annual Sujal Parikh Symposium on Health and Social Justice.

Photo: Participants engage in the Action Stations at the Third Annual Sujal Parikh Memorial Symposium for Health and Social Justice.
The Joint Institute for Translational and Clinical Research (JI) is a partnership between the University of Michigan Health System and the Peking University Health Science Center. Formalized in 2010 when leaders of both institutions signed a Memorandum of Understanding, the JI is in its third year of collaborative research. (Read more on Pages 58-61).

The Second Annual Symposium of the JI was held in Ann Arbor, November 28-30, 2012. Hosted by the University of Michigan Medical School, more than 50 colleagues from China traveled to Ann Arbor for the three-day event. Many were able to stay longer for additional work time with Michigan colleagues and to enjoy some local culture such as trips to Greenfield Village and the Detroit Institute of Arts, and to cheer on the Michigan Men’s Basketball team.

Units from across the University participated in the symposium, including the Brehm Center and the School of Nursing, each of which hosted workshops for participants interested in their disciplines. The symposium comprised public events, closed meetings with the specific research programs and cores, and JI Board and Executive Committee meetings.

Dr. Roger Glass, Director, Fogarty International Center and Associate Director for International Research, National Institutes of Health, presented a Keynote address on the globalization of biomedical research.

Members of the JI liver disease team from Peking University Health Science Center are shown in front of one of their research posters.

More information about the Joint Institute and the 2012 symposium program book is available online at www.puuma.org
The scientific program included presentations by NIH officials, Dr. Roger Glass (Page 68), Dr. Cristina Rabadán-Diehl (below right), and Dr. Susan Shurin, Deputy Director, National Heart, Lung, and Blood Institute. In addition, the program included updates from each of the JI research foci areas, and poster, plenary, and panel discussions.

Plenary sessions presented perspectives of both the Chinese and US investigator, giving the audience comprehensive insight into the similarities and differences of how specific diseases affect populations, how they are researched, and how they are treated. Symposium topics included: diabetes mellitus, cardiac myofibroblast, cerebrovascular disease, environment and health, new research methodologies, facilitating clinical research, engaging and protecting research participants, and creating and maintaining a workforce of research coordinators and assistants.
2013 CUGH Conference: Innovation, Implementation, and Impact

The mission of the Consortium of Universities for Global Health is to build collaborations and exchange of knowledge and experience among interdisciplinary university global health programs working across education, research, and service. It is dedicated to creating equity and reducing health disparities.

The fourth annual meeting of CUGH brought together more than 1,500 leaders, researchers, and innovators from a variety of sectors and disciplines to examine the cutting edge developments in addressing global health challenges. The University of Michigan was well represented, both in number of attendees and in scientific presentations. Approximately 50 faculty, staff, and students from across the University - at least half from the medical school - traveled to Washington, DC for the meetings. In addition to an oral presentation by Dr. Joseph Kolars, Senior Associate Dean for Education and Global Initiatives, medical student Danielle Dougherty (M2) read her award-winning essay Moving Forward, which was based on a domestic violence project she led in Botswana during the summer of 2012.

One of the Medical School’s invited guests at CUGH was Dr. Sr. Priscilla Busingye from the Virika Hospital in Fort Portal, Uganda. She is shown (left) at dinner with Dr. Tom Robins, Director of the Global Public Health Program, University of Michigan School of Public Health.

(right) Danielle Dougherty in front of her poster with Dr. Brent Williams, Director of the Global Health & Disparities Path of Excellence.
Dr. Kolars and Ms. Dougherty were also authors on two of the 23 U-M posters accepted for presentation. Ms. Dougherty is one of 29 students in the inaugural class of the medical school’s Global Health & Disparities Path of Excellence (GHD) - six of whom presented their research at CUGH.

Of the 130 institutions represented by poster presentations, U-M claimed the 2nd highest of number of posters by any one institution with 23/298 total posters. The full program for the 2013 CUGH meetings can be found at http://2013globalhealth.org.

SAVE THE DATE
2014 CUGH Conference:  May 10-12, Washington, DC
Sujal Parikh Memorial Symposium
March 23, 2013

Symposium Honors Former UMMS Student

Sujal Parikh was an M4 student participating in a one-year Fogarty International Fellowship in Uganda when a tragic road accident claimed his life on October 10, 2010. He had been in Uganda for just a few months working to address medical education issues and tackle critical problems associated with pediatric HIV/AIDS at the Joint Clinical Research Centre in Kampala. Sujal was born and raised in Dallas, Texas, the only child of Manoj and Sita Parikh. He received his undergraduate degree in public health and neurobiology from the University of California, Berkeley.

Sujal’s passing had a profound effect on the University of Michigan Medical School community—even those who didn’t know him well. He was passionate about social justice, access to medicines, medical education, and addressing human rights and health care disparities across the globe. He provided dedicated service and inspirational leadership to many groups including Physicians for Human Rights (PHR), the Global Health Education Consortium, Universities Associated for Essential Medicines, American Medical Student Association (AMSA) AIDS Advocacy Network, and the Uganda Village Project. Sujal was a passionate believer in the collective power of committed individuals to advance health and social justice, and he leveraged his networks within these organizations to make each of them stronger. Full of charisma and compassion, Sujal forged communities of friends and colleagues around the world.

In the wake of his untimely loss, those who loved him and were inspired by him came together to honor his work by creating the Sujal Parikh Memorial Symposium for Health and Social Justice. The symposium brings together a diverse group of students and professionals to learn from one another, create lasting connections, and generate new ideas for the advancement of health and social justice.

Learn more at http://sujalsymposium.org/

(left) Dr. Suzan Song used her more than 13 years of global health work in places like Burundi, Haiti, Liberia, and Sierra Leone to form her keynote lecture on Intent vs. Impact: Self-awareness in Global Initiatives.

(below) Dr. Brent Williams, Director of the Medical School’s Global Health & Disparities Path of Excellence, led a break-out session and discussed objectives and methods to guide global health education.
Sujal Parikh Memorial Symposium
March 23, 2013

Third Annual Sujal Parikh Memorial Symposium for Health and Social Justice:
Examining the Why, Discovering the How

A full day of presentations, discussions, poster and break-out sessions, and action stations provided a variety of opportunities for enthusiastic participants—many first timers and many previous attendees.

Keynotes
Two dynamic keynotes began and ended the symposium. Dr. Suzan Song, global child/adolescent psychiatrist at the Center for Survivors of Torture and policy consultant for the Columbia Group for Children in Adversity, shared her growth of self-awareness from more than 13 years experience in post-conflict rehabilitation of vulnerable populations. Ms. Ameena Matthews, Senior Violence Interrupter at Ceasefire in Chicago, Illinois, closed the symposium with an intimate and powerful session on her experiences solving inner city youth conflicts from the university campus.

Panel Discussions and Break-out Sessions
Panel discussions and small sessions brought insight to the theme of examination and discovery. Multi-disciplinary talks included the roles of faith-based vs. government and public initiatives in global health, challenges and successes in veteran care, youth empowerment solutions through community change, a success story on tuberculosis advocacy, vaccine coverage disparities in Shanghai, China, promoting healthy sexualities through comprehensive sexual education, and a novel, student-led mobile medical outreach model for the unreached, service-resistant homeless of Detroit.

Action Stations
Symposium participants had opportunities throughout the day to participate in several types of actions stations. Actions ranged from signing legislative petitions in favor of gun reform and against sweatshops to volunteering for Physicians for Human Rights initiatives to creating a commemorative sign in honor of Sujal’s own life actions.
In addition to nearly 80 visiting scholars and learners who came to the medical campus between July 2012 and June 2013, Global REACH facilitated the visits of almost 150 dignitaries and tour members hosted by various University of Michigan units.

- **Dr. Mesfin Araya**
  St. Paul’s Hospital and Millennium Medical College, Ethiopia
  Hosted by Obstetrics and Gynecology

- **Peking University Health Science Center**, China
  Group of 5 hosted by the School of Public Health

- **Dr. Peter Donkor**
  Kwame Nkrumah University of Science & Technology, Ghana
  Hosted by the School of Public Health

- **Dr. Richard Adanu**
  University of Ghana
  Hosted by the Center for Human Growth & Development

- **Peking University Health Science Center**, China
  Group of 42 hosted by the Joint Institute for Translational & Clinical Research

- **Landseed International Medical Group**, China and Taiwan
  Group of 6 hosted by the School of Public Health

- **Handan City Government**, China
  Group of 14 hosted by Global REACH

- **Dr. Jia Wei**
  Second Hospital, Beijing, China
  Hosted by Neurosurgery

- **Ministry of Health Office**, Macedonia
  Group of 5 hosted by Global REACH

- **Shanghai Jia Tong University**, Shanghai, China
  Group of 5 hosted by U-M central campus

- **Beihang University**, Beijing, China
  Group of 4 hosted by Orthopedic Surgery & Biomed Engineering

- **Dr. Willem JS de Villers**
  University of Cape Town, Capetown, South Africa
  Hosted by U-M Central Campus

- **National Sun Yat-sen University**, Kaohsiung, Taiwan
  Group of 26 hosted by the School of Public Health

- **Dr. Sr. Priscilla Busingye**
  Virika Hospital, Fort Portal, Uganda
  Hosted by Global REACH

- **Chinese Education Administration**, China
  Group of 25 hosted by the School of Public Health
November 13, 2012
58th Annual Student Biomedical Research (SBRP) Fall Forum
The research of more than 120 UMMS students was presented at the annual SBRP Fall Forum. Approximately 25% of the research projects were conducted internationally, representing 31 student projects. Global REACH supported 21 of these students.

November 16, 2012
Global Health Student Day (GHSD)
GHSD 2012 showcased the range and diversity of research, training, and outreach in global health across all the colleges and schools on campus. Co-supported by Global REACH and other units across the University, the day’s events provided a unique opportunity for students to display their global health work and a venue for scholarly discourse on a range of global health topics.

March 11, 2013
A Visit with Sister Priscilla Busignye
Over the past year, many Global REACH staff members have spent time coding the birth-delivery registry of Virika Hospital in Fort Portal, Uganda for Dr. Sr. Priscilla Busignye. The registry, with almost 5,000 entries, provides an in-depth look at the demographics of delivery information in an 18-month period during 2009-2011. Data such as home district, age of mother, gestational age, delivery method, complications and treatments, outcome of infant and mother, infant weight and ASVAB scores, will serve as the foundation for future maternal and infant health studies. Her trip to Ann Arbor and to the subsequent CUGH meetings (see Pages 70-71) were sponsored by Global REACH.

June 11, 2013
Securing and Implementing NIH R01s with International Partners: Views from Two PIs
Two successful UMMS researchers provided grant-seeking and -writing advice to a very interested audience of young investigators. Dr. Betsy Lozoff (Pediatrics) discussed her 30+ years of funding in infant iron deficiency in China, Chile, and Costa Rica. Dr. Akinlolu Ojo (Internal Medicine) shared lessons of working with partners in Brazil and Africa and his clinical trial to prevent new onset diabetes after transplant. This event was co-sponsored by Global REACH and hosted by Ms. Christine Black, Assistant Director for Research Services, UMMS.

Global REACH provides a venue for sharing activities and best practices. It supports faculty- and student-driven opportunities for educational exchanges.
At a large and diverse institution like the University of Michigan, building a community around the equally large and diverse topic of global health has long been challenging. However, Global REACH has focused efforts on building the UMMS global health community through at least two targeted initiatives this year.

It is our hope that creating these networks should help keep us all better informed about the international activities our medical school faculty are engaged in.

Photo: Postdoctoral fellows from Ghana who are training in the Medical School and the School of Public Health are hosted by Dr. Cheryl Moyer, Managing Director of Global REACH, and other colleagues from around the University.
One important goal of Global REACH is to encourage the growth of a community of researchers, clinicians, and educators at the University of Michigan Medical School (UMMS) who are interested in and committed to global health. With 29 departments and more than 2000 faculty, the Medical School has a vibrant and diverse portfolio of faculty with global health engagements. Yet our size and diversity often makes it difficult for faculty from different departments to appreciate the activities of their colleagues and to realize the potential for synergy. With that in mind, Global REACH launched the Global Initiatives Forum in June 2012 followed by a Faculty Associate program in February 2013.

The Forum consists of representatives from clinical and basic science departments who have expressed an interest in sharing their global health work or learning about others’ efforts. Led by Dr. Joseph Kolars, Josiah Macy, Jr., Professor of Health Professions Education and Senior Associate Dean for Education and Global Initiatives, the forum meets 6-8 times per year to share best practices, discuss funding strategies, and present case studies of successful global health endeavors. Forum members then share this information with other faculty members in their departments.

Global REACH Faculty Associates are UMMS faculty who have gone through a formal application process and thus become eligible to compete for Global REACH intramural funding and gain facilitated access to trainees interested in committing their time to global health-related projects. Bringing together like-minded researchers, educators, and clinicians helps to maximize the impact of our global activities and transcend individual interests.
As of July 2013, there are 81 Global REACH Faculty Associates. Approximately half of the UMMS clinical and basic science departments are represented in the Faculty Associate program, with the largest numbers coming from Internal Medicine, Obstetrics & Gynecology, and Ophthalmology & Visual Sciences.

Current Faculty Associates are shown in the pages that follow. Information includes their home department, global health research focus, and country/ies of interest.

For more information, please go to globalreach.med.umich.edu/articles/faculty-associates.
Global REACH Faculty Associates

Frank Anderson, MD, MPH
Obstetrics & Gynecology
Maternal and neonatal morbidity and mortality prevention through capacity building and community based interventions; Low-resource settings in Sub-Saharan Africa, Asia, and globally

Richard Auchus, MD, PhD
Internal Medicine
Collaborating with experts at other institutions to study rare diseases, particularly adrenal diseases and disorders of sex development, in both children and adults; Brazil, China, and the United Kingdom

Jason Bell, MD, MPH, MS
Obstetrics & Gynecology
The intersection between reproductive infectious diseases and family planning, how risk of sexually transmitted infections impact contraception use as well as how HIV/AIDS impacts contraception uptake and use of family planning services; Ethiopia, Ghana, Kenya, and Uganda

Jessica Bensenhaver, MD
Surgery
Decreasing the stage of cancer diagnosis, enhancing access to quality care, and developing management plans to improve outcomes; establish and maintain tumor registries, characterize tumor biology, and determine the prevalence of genetic predisposition; Ethiopia, Ghana, and Haiti

Urvashi Bhan, MD
Internal Medicine
Sepsis, pneumonia, and acute lung injury, expanding global work in research endeavors, increasing collaboration with other countries, and providing training for potential partnership in terms of education; India

R Alexander Blackwood, MD, PhD
Pediatrics & Communicable Diseases
Employing health assessment tools to evaluate the need for patient education in order to affect behavior changes and increase overall health; Middle East

David T Burke, PhD
Human Genetics
Technology development for the developing world, primarily in low-cost health monitoring and diagnostics; use of wireless systems for health assessment in remote locations; Ghana, Jamaica, and Nigeria

Margit Burmeister, PhD
Human Genetics, Molecular & Behavioral Neuroscience Institute
Global research at many levels: education, collaboration, facilitating medical and graduate students, and increasing interactions with Medical School and other institutions in global health research; China, Germany, Israel, Poland, and Taiwan

Andrew Campbell, MD
Pediatrics & Communicable Diseases
Investigating the differences of the Sickle Cell Disease Phenotype internationally in pediatric and adult patients; investigating healthcare disparities in Sickle Cell Disease care and outcomes; Ghana and Italy

Tae-Hwa Chun, MD, PhD
Internal Medicine
Teaching bench research and clinical skills necessary to understand the pathogenesis of metabolic and endocrine disorders, particularly obesity and diabetes; Japan

Kevin C Chung, MD, MS
Surgery
Outcomes research, assessment of health care quality, clinical trials, economic analysis in healthcare, and epidemiology and statistical issues in surgery; China, India, and other countries within Asia

Daniel Clauw, MD
Anesthesiology
Community needs assessments and education concurrent with education of U-M students; Kenya

Wayne Cornblath, MD
Ophthalmology & Visual Sciences
Promoting neuro-ophthalmology training/teaching on a global level to increase access and quality of care; Bahrain, Brazil, China, and Vietnam

Thomas Crawford, MD
Internal Medicine
Evaluation of the concept of pacemaker reuse, its safety and efficacy, as well as the ethical and regulatory issues involved; Bolivia, Ghana, Kenya, Mexico, Pakistan, Philippines, Uganda, and Vietnam
Global REACH Faculty Associates

Diana Curran-Galejs, MD
Obstetrics & Gynecology
Post-graduate OBGYN medical knowledge and surgical skills education/development/curriculum design/implementation; Ethiopia

Sherry H Day, OD, FAAO
Ophthalmology & Visual Sciences
Development of training programs for physicians interested in learning about specialty contact lens fitting (for diseased or post-op corneas) and low vision rehabilitation (for the visually impaired); China, Taiwan, and other countries that would like to learn and provide these services for their people

Hakan Demirci, MD
Ophthalmology & Visual Sciences
Clinical research in the area of ocular oncology including intraocular, conjunctival, orbital and eyelid tumors; Turkey

Courtney A Dewey, OD
Ophthalmology & Visual Sciences
Medical missions aimed at providing basic eye care and refractive correction to underserved areas of developing countries; Brazil, India, Peru, and Romania

Raymond Douglas, MD, PhD
Ophthalmology & Visual Sciences
Collaborative clinical and research projects in the field of thyroid eye disease; Brazil, China, Denmark, and Ghana

Kathleen Bronson Dussan, MD, RN
Internal Medicine
Medical education, refugee health and students’ attitudes and exposure to the underserved; medical reuse/recycling in promoting the recovery of unused medical supplies for the purpose of global aid, waste reduction, and cost-effectiveness; Colombia, Guatemala

Raymond de Vries, MD
Medical Education/Center for Bioethics and Social Sciences in Medicine
Promotion of maternal and child health via the training of midwives and obstetricians and improvement of the ethical conduct of clinical trials in low resource countries; China, Ghana, and the Netherlands

Avraham Eisbruch, MD
Radiation Oncology
Reducing toxicities and improving quality of life of patients with head and neck cancer undergoing radiotherapy, using advanced technology; India

Michael Fetters, MD
Family Medicine
Promotion of educational and research collaboration in family medicine and medical education; Brazil, China, Ghana, Japan, and Qatar

Senait Fisseha, MD, JD
Obstetrics & Gynecology
Women’s health; strengthening undergraduate medical education and supporting postgraduate training programs; Brazil, Ethiopia, and Ghana

Sheeja Francis, MD
Internal Medicine
Integrative rheumatology, with focus on improving accessibility to rheumatologic care in Kerala, India

Mohammad Ghaziuddin, MD
Psychiatry
Autism/Asperger syndrome, behavioral phenotypes, and mental retardation; India and Saudi Arabia

Bruno Giordani, PhD, MA
Psychiatry
Neurodevelopmental changes in cognition and motor ability associated with medical treatments and disease; Brazil, China, and Uganda

Katherine J Gold, MD MSW MS
Family Medicine
Maternal-child health, particularly in the perinatal period; stillbirth and infant death prevention as well as improving maternal mental health; Ghana and other African countries
Global REACH Faculty Associates

Edward Goldman, MD, JD
Obstetrics & Gynecology
Working with the law faculty in Kumasi, Ghana to create a Masters program in reproductive justice; Ethiopia and Ghana

Jennifer J Griggs, MD, MPH
Internal Medicine
Volunteer Physician for Asylum Seekers’ Network of Physicians for Human Rights; addressing the problem of breast cancer in Haiti, one of the poorest countries in the world; Haiti and Brazil

Larry D Gruppen, PhD
Medical Education
Promoting collaborations among medical educators around the world to develop innovative and effective interventions to address core health care education challenges; fostering research and scholarships, both through partnerships and faculty development; China and India

Andrew J Haig, MD
Physical Medicine and Rehabilitation
Building medical rehabilitation and rehabilitation leadership around the world; teaching global health and disparities issues to students; Austria, Brunei, China, and Ghana

Kelli Stidham Hall, PhD, MSN, NP
Obstetrics & Gynecology
Maternal child global health, psychosocial determinants and consequences of teen and unintended pregnancy, as well as access and barriers to family planning service provision; Ghana

Gary Hammer, MD, PhD
Internal Medicine
Adrenal and other endocrinological cancers; Brazil, India

Michele Heisler, MD, MPA
Internal Medicine
Development and evaluation of interventions to improve patient chronic disease self-management and outcomes; longitudinal, population-based research to inform better targeting and implementation of primary care programs; Brazil and Ecuador

Joseph Holoshitz, MD
Internal Medicine
Development of a new generation of synthetic adjuvants that could be used to improve vaccination potency in long list of human disease, many of which are endemic; Brazil, Canada, China, Israel, and other countries in Africa, the former Soviet Union, South America, and East Asia

Christopher Thomas Hood, MD
Ophthalmology & Visual Sciences
Medical missions and volunteerism; Haiti

Amy Huang, MD, MHSA
Medical School Administration
Science of international collaboration and medical education; China, Japan, Taiwan, other countries within Southeast Asia

Robert Curtis Hyzy, MD
Internal Medicine
Providing medical outreach to the indigent, underserved population of the Peruvian Amazon River basin and educational opportunities to UMMS students and residents during M-4 elective rotations; Peru

Elizabeth Anne Jackson, MD, MPH
Internal Medicine
Women’s cardiovascular health across the lifespan, the development of vascular risk factors and disease in relation to the menopausal transition, and health behaviors in women and the impact on family members; China, India, Vietnam

Timothy RB Johnson, MD
Obstetrics & Gynecology
Women’s health projects, sustainable partnerships, and postgraduate training programs; Ghana

Alon Kahana, MD, PhD
Ophthalmology & Visual Sciences
Thyroid eye disease, cancer and congenital eye disease; Brazil, Germany, and Israel
Global REACH Faculty Associates

Dr. Paula Anne Newman-Casey (right) at the Aravind Eye Hospital in Madurai, India

Dr. Jason Bell (right) explains a surgical procedure in his study on the impact of intrauterine contraception on the pathogenesis of pelvic inflammatory disease using a baboon model.

Dr. Jonathan Trobe (right) teaching a neuro-ophthalmology course in China.

Dr. Kevin Chung (center) performing a heterotopic bone excision and returning full range of motion in the elbow of a Nepalese patient in Kathmandu.

Gurpreet K. Rana (left) receives the Medical Library Association’s 2013 Estelle Brodman Award for the Academic Medical Librarian of the Year. She is shown with Jane Blumenthal, 2012-13 MLA President.
Global REACH Faculty Associates

Chava Kahn, MD
Obstetrics & Gynecology
Women's reproductive health care in Sub-Saharan Africa, particularly surrounding maternal mortality and family planning; implementation of a cervical cancer screening program in rural Uganda, utilizing the see-and-treat approach; Ghana and Uganda

Joseph Kolars, MD
Internal Medicine
Assessment of teaching quality; efficacy of medical learning venues; educational outcomes; measurement of learner competency; educating trainees to improve patient care; Brazil, China, Ethiopia, Ghana, India, Nepal, Peru, Tanzania, Uganda, Vietnam, and Zimbabwe

Matthias Kretzler, MD
Internal Medicine
Research networks for translational nephrology on five continents focusing on integration of comprehensive clinical data sets with large-scale genetic and genomic information; Brazil, China, Germany, India, and EU networks

Paul Lee, MD, JD
Ophthalmology & Visual Sciences
Glaucoma, cataract, and anterior segment disease; China and India

Helios Leung, PhD, OD, FAAO
Ophthalmology & Visual Sciences
Optometric education; China

Michael J Lipson, OD, FAAO
Ophthalmology & Visual Sciences
Stopping and/or slowing progression of myopia via alternative methods of vision correction/therapy; China

Anna Suk-Fong Lok, MD, FRCP
Internal Medicine
Prevention and treatment of viral hepatitis particularly in countries where hepatitis (B and C) are prevalent; education of physicians and other health providers on how to prevent viral hepatitis; Cambodia, China, and Vietnam

Dorene S Markel, MS, MHSA
Medical Education and The Brehm Center
Exploring potential collaborations between UMHS and Peking University Health Sciences Center in the diabetes space; health literacy effects on clinical research engagement in minority populations; China

Shahzad Mian, MD
Ophthalmology & Visual Sciences
International eye banking; developing a resource for surgeons and healthcare professionals working outside the US who are interested in obtaining transplantable corneal tissue for surgery, or who want to learn more about partnering with international eye bank development; China

Cheryl A Moyer, PhD, MPH
Medical Education
Maternal and infant health; social and cultural factors that influence facility-based delivery, stillbirth, early neonatal mortality; research capacity development; Ethiopia and Ghana

Patricia Mullan, PhD
Medical Education
Enhancing the competency assessment systems for professional health education programs in developing countries; mentoring student projects related to health education in developing countries; China, Ghana, India, Republic of Ireland, and South Korea

David C Musch, PhD, MPH
Ophthalmology & Visual Sciences
Epidemiological design and conduct of clinical research studies on eye disease; traveling courses on clinical trial principles and methods; China

Christine C Nelson, MD, FACS
Ophthalmology & Visual Sciences
Exploring areas of collaborations in education in Eye Plastic and Orbital Surgery; teaching residents and local ophthalmologists surgical techniques; clinical research in congenital eye diseases; improving quality of life and surgical techniques; China, Dominican Republic, Haiti, Kenya, and Peru

Lisa Ann Newman, MD, MPH, FACS
Surgery
The study of breast cancer variation related to African ancestry; Ghana
Global REACH Faculty Associates

Paula Anne Newman-Casey, MD
Ophthalmology & Visual Sciences
Decreasing rates of blindness through creating systems-based approaches to improve access to care; creating effective educational curricula for para-medical personnel; and studying patient decision making and health behavior change; Brazil, Ecuador, India, and other Latin American/Spanish-speaking countries

Vladimir Ognenovski, MD
Internal Medicine
Help train rheumatologists in Macedonia, establish rheumatology clinics to improve patient access and quality of care, and promote student and faculty exchanges; Macedonia

Akinlolu Ojo, MD, PhD, MBA
Internal Medicine
Clinical and translational research infrastructure and capacity development in Sub-Saharan Africa, genetics of kidney disease in people of African ancestry, comparative studies in African Americans, Afro-Brazilians, and Sub-Saharan Africans; Brazil, Ethiopia, Ghana, India, Jamaica, and Kenya

Ruben Peredo, MD
Internal Medicine
Chronic diseases in developing countries; exploring prevailing rheumatic diseases and their differences in their prognoses compared to developed nations; link of environmental hazards of developing countries and inequity in health care access with a poorer outcome; Bolivia, Brazil, Ecuador, and Mexico

Marc Peters-Golden, MD
Internal Medicine
Basic and translational research in innate immunity, inflammation, and fibrosis, particularly in the lung; collaborative research and mentoring international trainees and visiting scientists; Brazil, Canada, France, Germany, India, Japan, Korea, and Russia

John Piette, PhD
Internal Medicine
Developing interventions using health information technology to improve self-management and outcomes for patients with diabetes and other common, high-risk diseases in low/middle income countries; Bolivia, Chile, Colombia, Ecuador, Honduras, Mexico, and Nicaragua

Rodica Pop-Busui, MD, PhD
Internal Medicine
Mechanisms of chronic diabetic complications, particularly diabetic peripheral neuropathy and cardiovascular autonomic neuropathy and their role in the development of the high cardiovascular risk complicating diabetes; the role of oral health in diabetes complications; Brazil, China, Korea, and Romania

Raphael Pristoop, MD
General Medicine
Clinical care for resource-poor hospitals; supervision and training medical students/residents in patient care; and education of health workers; India, Israel, and Uganda

Jeffrey Punch, MD
Surgery
Partnering with the St Paul Millennium Medical School in Addis Abbaba, Ethiopia and the Ethiopian Health Ministry to establish a kidney transplant program in Ethiopia, and increasing involvement with the medical school partnership in Meru Kenya; Ethiopia, Kenya and Southeast Asia

Krishnan Raghavendran, MD
Surgery
Organization and delivery of trauma services and critical care to the developing world; India, Southeast Asia

Gurpreet Kaur Rana, MLIS
Taubman Health Sciences Library
Providing leadership in identifying global information resources; cultivating partnerships with health sciences community; collaborating with faculty to lessen health disparities around the world using the power of information resources; Ghana, India, and other developing countries

Sheila AM Rauch, PhD, ABPP
Psychiatry
Dissemination of evidence based practice with an emphasis on international dissemination of effective treatment for PTSD following disasters; Japan and other disaster impacted areas

Sanjay Saint, MD, MPH
Internal Medicine
Assessing and increasing hand hygiene compliance among healthcare workers and preventing common healthcare-associated infections; Italy, Japan, Thailand, and other European countries

Sabina Siddiqui, MD
Surgery
Assisting with acute surgical care needs, providing training to local health care providers, assessing resource utilization and process innovation; Egypt, Kenya, Nicaragua, and Peru
Global REACH Faculty Associates

Terry Jay Smith, MD
Ophthalmology & Visual Sciences
Extending endocrine care and patient education to underdeveloped countries; Brunei, Croatia, Ghana, and Vietnam

H Kaz Soon, MD, MS
Ophthalmology & Visual Sciences
International ophthalmology; Brazil, Bulgaria, China, Haiti, India, Japan, and Taiwan

Joshua D Stein, MD, MS
Ophthalmology & Visual Sciences
Utilization of eye care services and outcomes of eye care in developing nations and how they compare with the US, and alternative health care delivery models for eye care in other countries; India

Alan Sugar, MD
Ophthalmology & Visual Sciences
Corneal transplantation and eye banking; Guatemala and Trinidad

Denise Tate, PhD
Physical Medicine & Rehabilitation
Spinal Cord Injury clinical management, aging with disability, women with disability, quality of life outcomes, environmental factors in health and disability, health care policy and disparities; Brazil, Germany, Taiwan, United Kingdom, and other Latin American countries such as Argentina and Chile

Trilokraj Tejasvi, MD, MBBS
Dermatology
Providing health services and medical education in needy and impoverished areas through teledermatology, providing medical education about tropical dermatology, and learning about the genetic basis of common dermatological diseases in different ethnicities; Brazil, Ghana, Guatemala, and India

Jonathan D Trobe, MD
Ophthalmology & Visual Sciences
Problem-based learning courses in neuro-ophthalmology; Brazil, China, India, and Taiwan

Manuel Valdivieso, MD, MS, CPE
Internal Medicine
Infection-related cancers including gastric, cervical and hepatic cancers; reducing the burden of H pylori infection; Bolivia, Brazil, Colombia, Chile, Mexico, and Peru

Akbar K Waljee, MD, MSc
Internal Medicine
Establishing links between academic organizations, hospitals, and universities between developed countries and developing countries; address disparities in surgical and medical healthcare; Kenya

Brent Williams, MD, MPH
Internal Medicine
Developing educational programs in domestic and international health disparities; United States and multiple countries where medical students spend time

Maria A Woodward, MD
Ophthalmology & Visual Sciences
Telemedicine for eye diseases; Brazil

Would you like to become a Faculty Associate or receive global health monthly news updates?
Email globalreach@umich.edu for more information
Dr. Joseph Kolars (center) is shown with Dr. George Thibault, President, Josiah Macy Jr. Foundation (right), and Dean James Woolliscroft who was the first recipient of a Josiah Macy Jr. named professorship in medical education at the University of Michigan

Photo courtesy of Daryl Marshke, Michigan Photography

**Associate Dean Kolars Inaugurated as the Josiah Macy Jr. Professor in Health Professions Education**

On April 8, 2013, Dr. Joseph C. Kolars was inaugurated as the Josiah Macy Jr., Professor in Health Professions Education. Dr. Kolars, who is the Associate Dean for Education and Global Initiatives within the Medical School, was selected for this honor following a national competition. The bestowment of this award recognizes not only Dr. Kolars’ personal impact on the field of health professions education here and abroad, but also the University’s dedication to excellence in medical education. Although his personal appointment ends in late August 2017, the named professorship will help secure, in perpetuity, the Medical School’s role as a leader in medical education.

Kate Macy Ladd founded the Josiah Macy Jr. Foundation more than 80 years ago in honor of her father, a prominent philanthropist who died of typhoid fever at age 38. The Macy family emigrated from England in the mid 1600s and ultimately achieved their wealth through the shipping and oil industries. In establishing the foundation, it was the specific wish of the donor that the Foundation take more interest in the “architecture of ideas than in the architecture of buildings and laboratories” and that it “should primarily devote its interest to fundamental aspects of health, of sickness, and of methods for the relief of suffering.”

The Macy Foundation is currently the only national foundation solely dedicated to improving the education of health professionals and its entire source of funding is derived from the endowment. For the past 40 years, the majority of the Foundation’s grants have supported projects focused on improving medical and health professions education.
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Effective through December 31, 2014

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Cover Photo:
M4 Sheena Hembrador performs an exam during her clinical elective with Amazon Promise in Peru