GLOBAL PROGRAMS

ANNUAL REPORT 2023

Baylor College of Medicine

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Introduction

Baylor College of Medicine Global Programs was established in 2014 to guide the College's international programs and initiatives.

Our Mission

To make meaningful and lasting contributions to healthcare through innovation and research, training, and patient care.

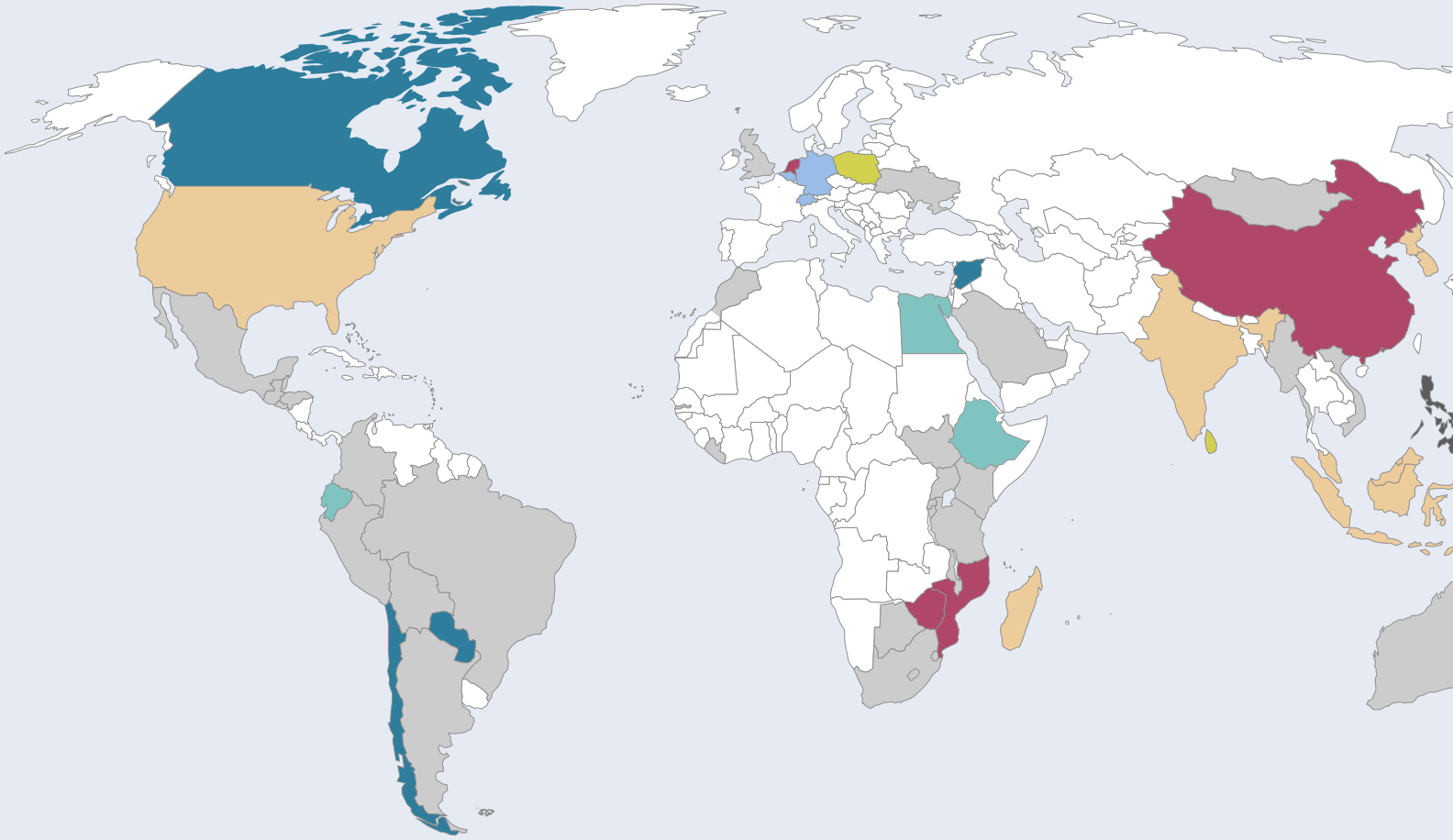
Our Vision

To enhance Baylor College of Medicine's reputation as a leading health sciences university through global health innovation and training.

Where We Are
2024 Global Map

Global Programs is a global resource committed to reducing health disparities worldwide, increasing access to quality care, and developing innovative solutions for better survival rates.

We strive to improve healthcare through innovative research and education, believing that everyone deserves quality healthcare regardless of their location. Our faculty and scholars currently work in over 60 countries as illustrated in this map by country, as well as by field of study.



Fields of Study

- Cancer
- Cardiovascular, Diabetes, Metabolic Disease
- Emergency Medicine
- Genetics
- Hematology
- Infectious Disease
- Maternal Health
- Mental Health
- Pediatrics
- Prosthetics
- Safe Surgery, Anesthesia
- Telepathology
- Multiple Works

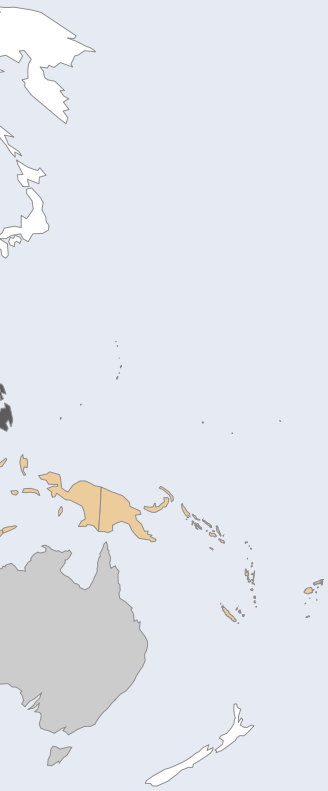
By the Numbers

60 Countries

33 Programs

82 Scholars

13 Fields of Study



Countries

North America

Canada	Mental Health
Mexico	Cancer Infectious Disease Mental Health Pediatrics
United States	Infectious Disease

Central America

Belize	Emergency Medicine Infectious Disease
El Salvador	Infectious Disease Mental Health
Guatemala	Cancer Hematology Pediatrics Safe Surgery, Anesthesia
Honduras	Cancer Mental Health

South America

Argentina	Infectious Disease Mental Health
Bolivia Peru	Cancer Mental Health
Brazil	Mental Health Telepathology
Colombia	Mental Health Pediatrics
Chile Paraguay	Mental Health
Ecuador	Safe Surgery, Anesthesia

Oceania

Australia	Cancer Infectious Disease
Fiji Kiribati Solomon Islands Tonga Vanuatu Papua New Guinea	Infectious Disease

Africa

Botswana Eswatini Lesotho	Cancer Infectious Disease Hematology Pediatrics
Burundi Kenya South Sudan South Africa	Cancer Hematology Pediatrics
Egypt Ethiopia	Safe Surgery, Anesthesia
Liberia	Cancer Emergency Medicine Hematology Pediatrics
Madagascar	Infectious Disease
Malawi	Cancer Cardiovascular, Diabetes, Metabolic Disease Emergency Medicine Hematology Infectious Disease Maternal Health Pediatrics Safe Surgery, Anesthesia
Morocco	Cancer Cardiovascular, Diabetes, Metabolic Disease Safe Surgery, Anesthesia
Rwanda	Cancer Telepathology Hematology Pediatrics Safe Surgery, Anesthesia
Tanzania Uganda	Cancer Hematology Infectious Disease Pediatrics Prosthetics Safe Surgery, Anesthesia
The Gambia	Maternal Health Safe Surgery, Anesthesia

Asia

China	Cancer
Hong Kong	Genetics
India Indonesia Malaysia	Infectious Disease
Mongolia	Cancer Infectious Disease
Myanmar	Infectious Disease Safe Surgery, Anesthesia
North Korea South Korea	Infectious Disease
Philippines	Telepathology
Saudi Arabia	Infectious Disease Safe Surgery, Anesthesia
Sri Lanka	Prosthetics
Syria	Mental Health
Vietnam	Mental Health Safe Surgery, Anesthesia

Europe

Belgium Germany	Cardiovascular, Diabetes, Metabolic Disease
Netherlands	Cancer
Poland	Prosthetics
Switzerland	Safe Surgery, Anesthesia
United Kingdom	Cancer Telepathology
Ukraine	Mental Health Prosthetics Safe Surgery, Anesthesia

Scan the QR code to visit our interactive map

Message from the President and CEO Baylor College of Medicine

Paul Klotman, M.D.

President and CEO Executive Dean
Baylor College of Medicine

Dear friends and colleagues,

Since its inception over 100 years ago, Baylor College of Medicine (BCM) has held a unique and strong global mission and presence. From the earliest mobile army surgical (MASH) units conceived and developed by Dr. Michael DeBakey and the surgical consultants in the first years of World War II to our more recent mobile pods for pandemics and maternal health, our faculty, staff, and trainees continue to lead with creativity, compassion, and an unwavering focus on equity.

Today, with a footprint in over 60 countries worldwide, we are proud of our growth and accomplishments. While we have had historically strong programs in communicable disease and HIV, we have expanded our international activities to include anesthesia, surgery, mental health, cancer, and rehabilitation care. Our recent programs address medical, environmental, and mental health crises in the Ukraine, Brazil, Morocco, The Gambia, Malawi, and even underserved communities in Texas. Our portfolio has expanded to include a number of significant NIH-funded programs led by Baylor College of Medicine faculty across continents.

I hope you will take some time to review this report and see all that we have accomplished together. I look forward to even greater things ahead.

Sincerely,

Message from the Vice President and Senior Associate Dean, Global Programs

Sharmila Anandasabapathy, M.D.

Vice President and Senior Associate Dean
Global Programs

Dear friends and colleagues,

Global health has never been more important.

The pandemic showed us how deeply connected the world is and the need to collaborate, across borders, to address the existential challenges we collectively face. Geopolitical instability, environmental catastrophes, ongoing infectious threats, and a continued rise in cancer and cardiovascular disease have reinforced the need for high-impact, sustainable solutions led by international cross-disciplinary teams.

We are honored and humbled to provide a small snapshot of BCM's global efforts over the past two years, including cancer detection and diagnosis, maternal health, safe surgery and anesthesia, vaccine development, rehabilitation care, mental health, and so much more. As always, our efforts have been guided by two different yet complementary principles: ***innovation*** and ***equity***.

In the words of the legendary Paul Farmer, who passed away in 2022, *"Equity is the only acceptable goal."* I hope you will enjoy reading about the incredible BCM faculty, students, and leaders who are making this goal possible.

Sincerely,

Smart Pod®

Enhancing Maternal Health in The Gambia

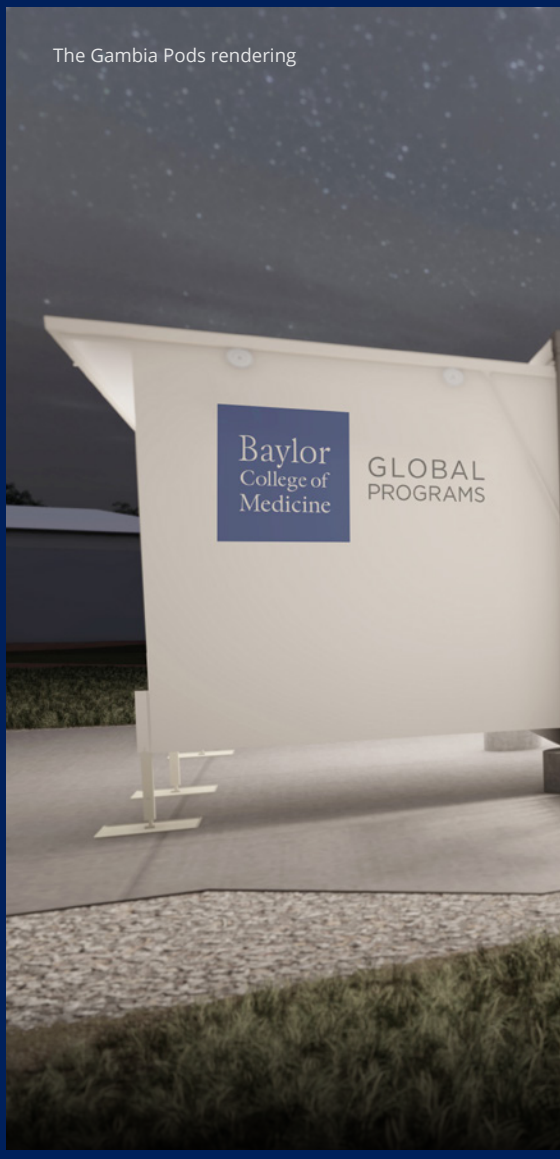
Serrekunda, the largest city in Western Gambia, is home to more than 340,000 people. There, the medical team at Kanifing General Hospital (KGH), a Global Programs partner since 2019, performs over 3,000 deliveries and nearly 1,000 C-sections annually. Today KGH faces challenges in providing quality care due to a shortage of operational and up-to-date equipment, a lack of access to continuing education, and insufficient patient and surgical space. These gaps in healthcare infrastructure adversely affect the quality of care, resulting in unacceptably high rates of maternal complications and deaths.

With support from the Trini and O.C. Mendenhall Foundation, Global Programs designed Maternal Health Smart Pods to bolster the hospital's surgical capabilities and capacity. A specially crafted three-pod arrangement, set for deployment at KGH in early 2024, will consist of an operating room (OR) suite, a post-anesthesia care unit (PACU), and a connecting vestibule serving as a pre-op staging area. This layout will ultimately help maintain a sterile surgical field and reduce hospital-borne infections.

> The Smart Pod facilities will improve the capacity and quality of care in KGH's maternity ward, doubling as surgical and patient space in the event of disasters and other health crises.

Another unique innovation, the prototype MedBed, will be used in tandem with the Maternal Health Smart Pod. Constructed from cost-effective, 3D-printed materials, this ecologically sustainable and lightweight bed was designed to one day replace bulkier, traditional medical beds deployed in the field. The team plans to test and gather feedback to continually refine its design for future Smart Pod deployments.

While these innovations and resources empower KGH's physicians with the necessary tools to improve the lives of mothers, clinical training remains equally crucial for lasting impact. KGH is the pilot site of the GOALL Program (The Gambia Obstetrics and Anesthesia Learning and Leadership), which works to provide KGH's physicians with ongoing educational opportunities in the fields of obstetrics and gynecology as well as anesthesiology. The team is committed to a multi-modal approach by combining educational initiatives with capacity building to address complex healthcare topics, such as improving maternal healthcare in The Gambia.



The Gambia Pods rendering

Operating room

The Gambia Smart Pod Timeline

2023

April — Manufacturing of the Smart Pods

November — Testing and validation of the Smart Pods

2024

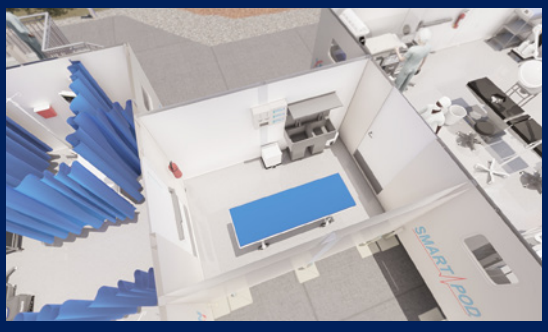
March — Shipping of the Smart Pods to The Gambia

May — Deployment of the Smart Pods at KGH

June — Training and maintenance courses of the Smart Pods at KGH

KGH is the pilot site of The Gambia Obstetrics and Anesthesia Learning and Leadership Program (GOALL), which works to provide KGH's physicians with ongoing educational opportunities in the fields of OB/GYN and anesthesiology.

Operating room (first-person view)



Connecting vestibule serving as a pre-op staging area

Post-anesthesia care unit (PACU)

BCM's Global Surgery Residency

Training the Next Generation of Global Surgeons

Rachel Davis, M.D., created the Global Surgery Residency Track during her general surgery residency at BCM in response to her desire to help students interested in global surgery find outlets for their passion.

The resulting program is the first and only National Resident Matching Program (NRMP)-recognized global surgery program in the United States, and it tackles its curriculum in a unique manner.

This residency program integrates two years of dedicated global surgery training into the traditional surgical residency and focuses on a diverse set of common procedures across specialties that students may encounter during international rotations, thus preparing senior residents for their role abroad.

Students learn

over **40** common surgeries

from fields like OB/GYN, urology, ophthalmology, and more!

Student Service Locations

Ecuador, Egypt, Guatemala, Malawi, Mongolia, Saudi Arabia, Tanzania, Uganda, Vietnam, Switzerland, Houston, Galveston, Texas, Columbus, Texas

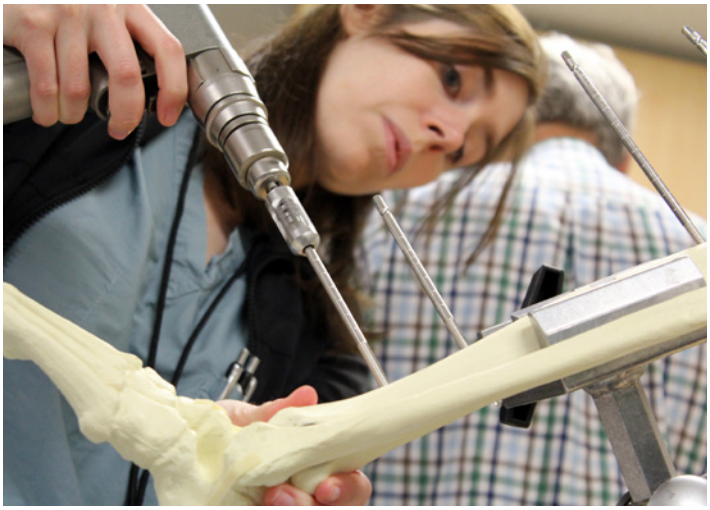
Expanding and Improving Surgical Care

Creating Sustainable Change

Rachel Davis, M.D., director of global surgery and assistant professor of surgery, completed both her M.D. degree and surgical residency at BCM and as a resident created the Global Surgery Residency Track, the first of its kind in the nation. Outside of the classroom, Dr. Davis works to expand access to surgical care by creating unique virtual educational opportunities that address the surgical needs of countries ranging from Myanmar and Guatemala to Ukraine and Morocco.

Dr. Davis and her team have been unable to travel to specific sites due to active conflicts, but such limitations have not deterred them from providing training and educational support. The team holds biweekly virtual training sessions in Ukraine and Myanmar that are focused on trauma surgery and emergency medicine to provide frontline doctors with the skills they need to care for those in harm's way. Dr. Davis also works with cardiothoracic surgeons Lauren Barron, M.D., and Todd Rosengart, M.D., to host bimonthly virtual case conferences in Morocco that provide professionals with unique educational opportunities and the space to review cardiothoracic surgical cases with fellow professionals from around the world.

Although these efforts can improve the quality of surgical services in each region, Dr. Davis believes that long-term change is only possible through a growing emphasis on local initiatives and a gradual decrease in international support. While international support is needed and useful, such aid needs to be dedicated to building in-country surgical capacity and training local surgeons to become leaders who will go on to teach their colleagues. The focus should be on helping to develop programs and facilities that will become vital and self-sufficient components of the region's surgical infrastructure so that it is no longer reliant on and shackled by the resources of international partners.



62%

of the world's population lacks access to safe and affordable surgical care

Bringing Global Health to the Classroom

BCM's Global Health Pathway

Students at the School of Medicine can choose between seven different and unique educational pathways that can help them grow as physicians and caregivers.

The Global Health Pathway, led by Colleen Keough, M.D., and George Parkerson, M.D., gives MS1 and MS2 students the chance to hear from various global health experts on topics like women's health, global surgery, and global technology development. During their MS3 or MS4 year, students have the opportunity to participate in a clinical elective and gain valuable field experience at Baylor International Pediatrics AIDS Initiative (BIPAI) sites in countries including Malawi and Uganda.

> The Global Health Pathway was one of the opportunities that drew me to BCM. My experience has been filled with abundant learning, support, and excitement. Global Health has allowed me and my colleagues to appreciate medicine in a broader context and gain skills to improve health equity locally and globally. The electives involve a variety of faculty who share their unique experiences and facilitate discussion with students. I look forward to what the pathway has to offer in my continuing years of education!
>
> *—Taegen Senawong, MS2*

Other BCM School of Medicine Pathways

- Care of the Underserved
- Ethics
- Health Care Policy and Management
- Genetics
- Space Medicine
- Medical Research Pathway

Students and faculty serving the community at a school health fair in rural Honduras, in coordination with the Houston Shoulder-to-Shoulder Foundation

The GOALL Program

Advancing Maternal Health in The Gambia

The Gambia, with a population of 2.6 million, faces a maternal mortality ratio of 458 per 100,000 live births, ranking 17th globally (Gambia DHS, 2019-2020). Rahel Selassie, M.D., director of global anesthesia, along with Jeffrey Wilkinson, M.D., and Steven Boggs, M.D., conducted a clinical needs assessment in 2020 at three Gambian hospitals, revealing critical deficiencies in obstetric and obstetrical anesthesia care environments due to insufficient staffing, inadequate facilities, and limited access to care.

In response, BCM Global Programs Faculty Scholars initiated the "Safe Labor and Delivery in The Gambia: From Assessment to Action" project. Phase I (2020-2023) involved comprehensive obstetrical training courses delivered virtually and in-person to nurse midwives and physicians. Dr. Selassie then developed the curriculum for The Gambia Obstetrics and Anesthesia Learning and Leadership (GOALL) Program currently being piloted at KGH and facilitated biweekly training sessions. Phase II, slated for March 2024, will coincide with the deployment of maternal health Smart Pods at KGH, jointly developed by BCM and Xploration Health. These mobile ISO-standard containers equipped with operating rooms, recovery room supplies, Wi-Fi, GPS tracking, and telehealth capability will enhance surgical capabilities for obstetrical patients.

The GOALL Program's impact will be assessed following Smart Pod deployment and comprehensive training, with plans to extend workforce training to six rural maternal health sites in The Gambia using hybrid learning methods. These initiatives mark a significant milestone in BCM's commitment to maternal well-being in The Gambia.

2023 Virtual Training Intended Impact and Result

10
participants per lecture on average

77%
compared to the initial 60% pass rate on pre-assessments

78%
of participants scored above 7/10 on their post-assessments

The Gambia Safe Labor and Delivery Project Timeline

2020	2021	2022	2023	2024
Project design and partnership building	Site selection, clinical needs assessment, environmenal assessment	Medical training in The Gambia, engineering and environmental assessment	Engineering, design, construction, site preparation, and medical education courses (virtual and in-person) for Gambian health workers	Smart Pod deployment, final training course, and a stakeholder visit to The Gambia

Empowering Researchers

Global Programs' Research and Innovation Lecture Series

The Global Programs team hosts a monthly Research and Innovation Lecture Series to provide BCM researchers and scholars with a platform to present their research/findings to colleagues and the public.

This summer, the team held a "special guest" lecture series that featured researchers from other institutions like Baylor University and the National Autonomous University of Mexico (UNAM).

Lectures are recorded and uploaded onto the webpage and the BCM YouTube channel, so they are accessible to anyone and everyone! BCM will continue to bring in scholars from a variety of fields who embody Global Programs' mission of improving the world through innovation, research, and training.

Scan the QR code to watch our lecture series.

Recent Lecture Series Scholars and Topics

Scholars	Topics
Dr. Amy McGuire	Psychedelics and Medical Tourism
Dr. Baozhou Sun	Improving Radiation Treatments in Low- and Middle-Income Countries
Dr. Beth Lanning	Childhood Development & Well-Being Programs in Rwanda
Dr. Daniel Rosen	Utility of a Low-Cost 3D-Printed Microscope
Dr. David Hilmers	Hepatitis Treatment and Eradication Programs in LMICs
Dr. Eric Storch	Lessons Learned From the LATINO Study
Dr. Fernando Scaglia	Joint BCM-CUHK Center of Medical Genetics
Mr. Jeff Lovell	Mental Health Smart Pod
Dr. Joy Mackey	Emergency Care Training Programs in Belize
Dr. Maria Bottazzi	Running the Gauntlet of Vaccine Development
Dr. Víctor Sánchez-Cordero	The Public Health Importance of Zoonotic Disease

LATINO
LATIN AMERICAN TRANS-ANCESTRY INITIATIVE FOR OCD GENOMICS

The NIH Data on Representation

78%	European
10%	Asian
2%	African
1%	Hispanic
0.5%	Other minorities
8.5%	Unreported

Resource: https://www.genome.gov/about-genomics/fact-sheets/Diversity-in-Genomic-Research

The Next Step in Creating Equitable OCD Research and Treatments

Eric Storch, Ph.D., a psychiatry and behavioral science professor and the head of psychology at BCM, primarily works on assessing and treating individuals with OCD-related and anxiety disorders. Over the past 15 years, he has worked throughout Latin America and with Hispanic communities in the U.S. addressing mental health disparities. Dr. Storch recognized that genetic data utilized in OCD research and treatment plans lacked diversity, with older OCD studies collecting data from an almost exclusively European/Caucasian patient base. Because genetics are a major factor in OCD presentation and treatment, this lack of diversity leads to health disparities and less effective treatments for patients of differing ancestries.

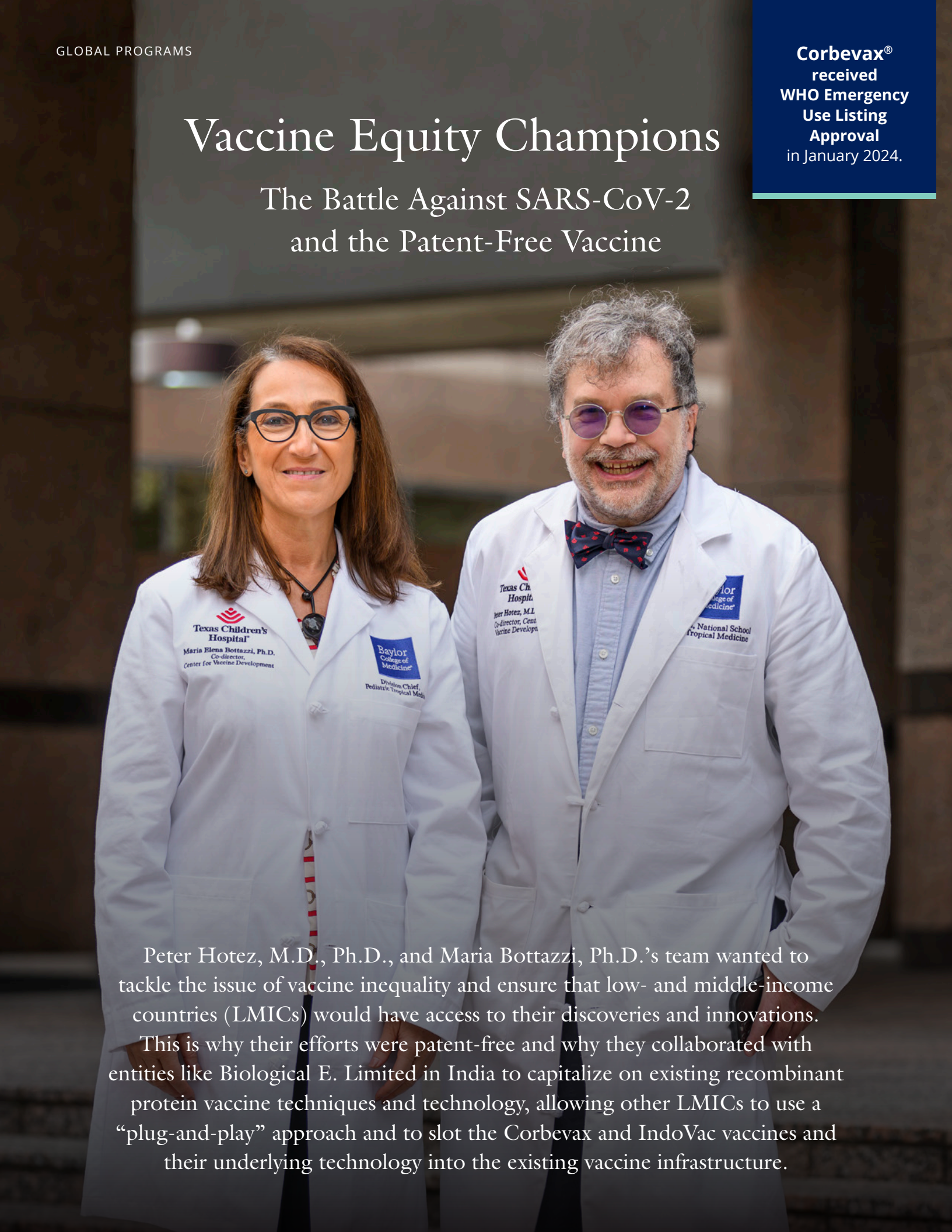
The LATINO Study, spanning 50+ clinical sites and 14 countries from Canada to Argentina, addresses this stark lack of genetic diversity. The study aims to recruit "the largest ancestrally diverse population of adults and children with OCD" and sequence their DNA to better understand the genetic factors that influence OCD in order to create impactful, evidence-based treatments. Over 1,600 patients have already enrolled in the study, with many participants stating that they finally felt seen and understood.

Dr. Storch's LATINO Study will help diversify OCD research across the Americas, and his team is beginning efforts to create similar studies in the near future for people across Asia, Africa, and other parts of the world. Furthermore, they want to expand access to evidence-based treatments for OCD and reduce associated stigma. The results of the LATINO study will create new avenues of research aimed at expanding access to and improving the quality of culturally aware and evidence-based care for individuals with OCD and other related disorders. Ensuring patients are represented in the research that influences and shapes their care is crucial, and the LATINO Study is the first step toward making sure everyone with OCD is equally represented and cared for regardless of their ancestry.

Corbevax® **received WHO Emergency Use Listing Approval** in January 2024.

Vaccine Equity Champions

The Battle Against SARS-CoV-2 and the Patent-Free Vaccine



Peter Hotez, M.D., Ph.D., and Maria Bottazzi, Ph.D.'s team wanted to tackle the issue of vaccine inequality and ensure that low- and middle-income countries (LMICs) would have access to their discoveries and innovations. This is why their efforts were patent-free and why they collaborated with entities like Biological E. Limited in India to capitalize on existing recombinant protein vaccine techniques and technology, allowing other LMICs to use a "plug-and-play" approach and to slot the Corbevax and IndoVac vaccines and their underlying technology into the existing vaccine infrastructure.

The whole world changed four years ago—countries mandated masking, physical distancing, and stay-at-home lockdown protocols in the face of the SARS-CoV-2 pandemic. The medical world mobilized to fight the virus not only in hospitals and clinics but in labs and research centers to accelerate the development of a safe and effective vaccine. At BCM, Dr. Hotez, Dr. Bottazzi, and their team of scientists received vital support from various foundations and donors for the development of their COVID-19 vaccine technology, which ultimately led to the approval of Corbevax in India and Indovac in Indonesia. To date, almost 100,000 million vaccinations have benefitted the population in these two countries.

Drs. Hotez and Bottazzi strongly believe in addressing the issue of vaccine inequity. They aimed to ensure access to their discoveries and innovations in low- and middle-income countries (LMICs) where people and governments may not have the means to pay for the COVID-19 vaccines using the latest mRNA technology. As a result, they made the Corbevax vaccine open access. The vaccine team collaborated with Biological E. Limited in India to capitalize on existing vaccine technology and recombinant protein vaccines, allowing countries like India and Indonesia to use a "plug-and-play" approach to slot BCM's COVID-19 vaccine technology into their existing vaccine manufacturing and infrastructure.

Such humanitarian efforts to "decolonize the vaccine ecosystem," as Dr. Hotez would say, have resulted in a vaccine that could be implemented in every corner of the world. However, throughout the pandemic, the SARS-CoV-2 virus mutated, and with enough frequency that recent variants are being given complex names like XBB 1.5 and BQ 1.1. These strains, dubbed "Scrabble Strains" by Dr. Hotez for the high-value letters found in the game Scrabble, must be tackled much like the flu. New vaccines and boosters will need to be continually developed and distributed to help protect against the most common variant strains and to boost the waning effectiveness of mRNA-based COVID-19 vaccines after six months. As it stands, less than 30 percent of adults and less than 20 percent of adolescents have received an updated booster, so a large part of the population is at risk of infection or breakthrough infection of newer Scrabble Strains.

While COVID-19 vaccinology has made lightning-fast progress, the battle is clearly far from over, but rest assured that Drs. Hotez, Bottazzi, and all of the Vaccine Center teams are up to the task of continuing to make equitable vaccines for SARS-CoV-2 and beyond. Even as you read this, these very teams have already developed the XBB-sequence-based COVID-19 vaccine technology and have transferred it to an Indian manufacturer, which is rapidly advancing it for humanitarian use in India to prevent these critical boosters from being relegated to just North America and Europe.

Recent Accolades for Dr. Hotez and Dr. Bottazzi

- 2023 Lyndon B. Johnson Moral Courage award
- 2022 Nobel Peace prize nomination
- The 2023 David and Beatrix Hamburg Award for Advances in Biomedical Research and Clinical Medicine
- Fast Company's 2022 Most Creative People in Business

Drs. Hotez and Bottazzi with the Vaccine Center team outside of the USDA/ARS Children's Nutrition Research Center in Houston

Advancing Cancer Detection

Innovation & AI for Global Impact

The Center for Innovation and Translation of POC Technologies for Equitable Cancer Care (CITEC) has joined the National Institute of Biomedical Imaging and Bioengineering (NBIB) Point-of-Care Research Network (POCTRN), operating as a multinational collaboration with Rice University and BCM. Sharmila Anandasabapathy, M.D., the VP and senior associate dean of global programs, will be leading the clinical core of the program.

THE CENTER FOR INNOVATION AND TRANSLATION OF POC TECHNOLOGIES FOR EQUITABLE CANCER CARE

> The overall goal of this center is to focus on the development of portable, low-cost, environmentally and culturally appropriate technologies for early cancer detection.
>
> *—Dr. Sharmila Anandasabapathy, VP and senior associate dean of global programs*

Under the leadership of Dr. Anandasabapathy, CITEC will address disparities in access to diagnostics and work to impact cancer survival rates by focusing on innovative solutions targeting various cancers, with an initial emphasis on cervical and gastrointestinal cancers. Recent innovations have taken the form of low-cost, high-resolution micro-endoscope (HRME) systems for real-time, in-vivo pathological data and AI integration in the detection of anal and esophageal squamous cell cancer. The international and innovative nature of this project embodies the core mission of BCM Global Programs, and the CITEC team will continue to work diligently to pursue FDA approval for public use.

CITEC Partner Sites

- BCM Global Programs
- Rice University
- MD Anderson Cancer Center
- University of Sao Paulo
- Barretos Cancer Hospital in Brazil
- Mozambique Ministry of Health
- Universidad Eduardo Mondlane in Maputo, Mozambique

A "Pathologist-in-a-Box"

The Push to Support International Pathologists

Daniel Rosen, M.D., is the director of global pathology and professor of pathology and immunology at BCM with over 20 years of experience in the field. In 2021, BCM spotlighted Dr. Rosen's pioneering work in telepathology and his implementation of the OpenFlexure Microscope (OFM), a low-cost device poised to revolutionize pathological capabilities in low-resource healthcare settings.

Over the past two years, the OFM has undergone significant upgrades, notably in software and user interface enhancements, to create a product that facilities eagerly adopt to enhance diagnostic quality. Despite facing supply-chain challenges and rising component costs, the latest OFM model has a universal power source, user-friendly interfaces, and streamlined assembly and training procedures.

The OFM represents the first step toward Dr. Rosen's vision of an interconnected ecosystem of technologies that will assist pathologists around the world. Future Smart Pod and potential AI integration aims to further enhance workflow efficiency, thus positioning the OFM as a comprehensive "Pathologist-in-a-Box" solution. What began as an endeavor to improve clinical pathology has evolved into groundbreaking technology with lasting implications for global medicine.

COLLEGE of AMERICAN PATHOLOGISTS FOUNDATION

Dr. Rosen's team was awarded the **2023 CAP Foundation Global Pathology Development Grant** for their microscope.

Dr. Rosen and team assembling OpenFlexure Microscopes in Rwanda

A Curable Condition

Treating Obstetric Fistulas in Low-Resource Settings

In sub-Saharan Africa, over 100,000 women experience obstetric fistula annually. This devastating condition occurs when the baby's head is too large to pass through the maternal pelvis during labor, resulting in obstructed labor. Pressure necrosis of the soft tissues of the pelvis occurs and results in abnormal communication between the bladder and the vagina and/or the rectum and the vagina. The woman is often left with a dead baby and physically and socially disabling continuous incontinence. Obstructed labor also accounts for approximately 6 percent of maternal deaths globally. Obstetric fistula results in extreme social isolation, depression, and stigma and women are often abandoned by their husbands and families. Most women live the rest of their lives untreated for this curable condition because there are not enough centers to care for them.

Jeffrey Wilkinson, M.D., an obstetrics and gynecology (OB/GYN) professor at BCM with extensive experience in sub-Saharan Africa, emphasizes the simplicity of treating obstetric fistulas with basic surgical equipment and expertise. Advocating for improved surgical care and access to safe motherhood, he leads initiatives in The Gambia to enhance maternal healthcare while dedicating significant efforts in Malawi to develop maternal healthcare programs and provide fistula surgery. His collaboration with local partners strengthens clinical and surgical OB/GYN services, aiming to alleviate the burden of obstetric fistulas and improve maternal healthcare.

> In 80 percent of patients, we know what to do to fix this condition. It is no mystery. You need anesthesia, a good operating table, basic instruments with a good pair of plastic surgery scissors, and the right sutures, and you can cure a patient. Most importantly, you need the knowledge and experience to repair the condition correctly, if possible, on the first try.
>
> *—Dr. Jeffrey Wilkinson, professor of obstetrics and gynecology at BCM*

KGH employee engaging in the GOALL Program's step-down training sessions

21st-Century Care on the Front Lines

Orthotic and Prosthetic Services in Ukraine

Jared Howell, M.S., director of global rehabilitation innovation and assistant professor of physical medicine and rehabilitation at BCM, and his team plan to leverage innovative orthotic and prosthetic (O/P) technology and approaches to transform Ukraine's rehabilitation care system.

Since the beginning of the Russian invasion of Ukraine in February 2022, approximately 50,000 to 70,000 Ukrainian soldiers, civilians, and children have lost at least one limb. O/P patients were an underserved population before the war, and with the conflict overwhelming health systems beyond capacity, numerous O/P patients are having difficulty accessing the proper level of prosthetics care required to improve their quality of life.

Mr. Howell has worked in Tanzania and Sri Lanka to improve O/P care infrastructure by utilizing the power of 3D-printing technology and training local physicians in relevant techniques. These cost-effective 3D-printed prostheses were produced quickly and remained of the highest quality in both material and fit. Additional 3D-printing advancements have enhanced prosthesis integrity and further decreased costs. Mr. Howell's next step is exploring how a mobile Smart Pod could be rapidly deployed and provide 3D-printed prostheses wherever such services may be needed.

Expanding and improving such services will help address the chronic lack of access and limited patient capacity present in the O/P care system, which led to O/P patients being underserved in the years before the war. Mr. Howell aims to reframe the existing health network to expand care equitably with a focus on supporting local partners and long-term capacity building. His team will emphasize step-down trainings for local physicians and therapists, leveraging technology, building effective supply-chain management, and establishing reliable infrastructure for sustainable programs that will support the country's O/P care system.

> We know that one's mobility affects virtually all aspects of one's life and well-being, and on a global scale we aim to give our brothers, sisters, and friends hope for their future, and the opportunity to regain their independence.
>
> *—Mr. Jared Howell, director of global rehabilitation innovation and assistant professor of physical medicine and rehabilitation at BCM*

The exterior of a Ukrainian hospital that Mr. Howell visited and worked in during recent in-country visits

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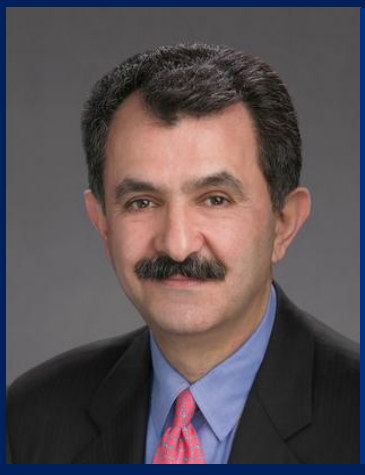
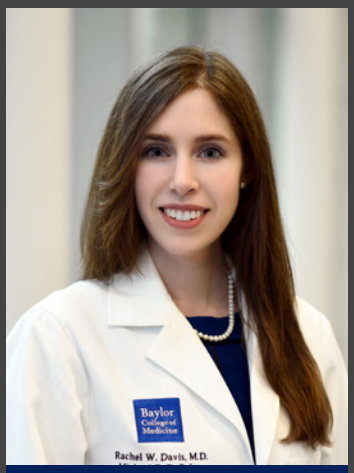


Ali Saberioon

Chuck Watson

Global Programs Directors



Rachel Davis, M.D.

Director of Global Surgery

Jared Howell, M.S.

Director of Global Rehabilitation Innovation

Daniel Rosen, M.D.

Director of Global Pathology

Rahel Selassie, M.D.

Director of Global Anesthesia

Global Programs Clinical Network

Michael Mizwa

CEO, Baylor Global Health (501c3) and Director, Texas Children's Global

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Daylight on the landscape surrounding the village of Tsonjin Boldog, roughly 60 kilometers east of Ulaanbaatar, the capital city of Mongolia