

ANNUAL REPORT

2022-2023

THE CENTER FOR GLOBAL HEALTH

Transitioning to New Horizons



CONTENTS

Tribute to Steve	1	
Message from Interim Director		3
History and Mission		
Center for Global Health Signature Activities	5	
Guatemala Global Health Site at Trifinio		
Community Health Programs		7
World Health Organization Activities	11	
Educational Programs		13
Scholarships	15	
Global Health Pathway		17
Research Focus Areas	19	
Center for Global Health Grants		23
MOU Agreements	27	
Financials		31
Staff, Faculty and Executive Members	33	
Supporters, Partners, Publications		35

DR. STEPHEN BERMAN

Our greatest loss this year was the passing of Dr. Stephen Berman MD, FAAP on January 17, 2023. Steve was our Director at the Center for Global Health and served at the same time as the Professor of Pediatrics and Public Health at the University of Colorado as well as holding the Emeritus Endowed Chair in Academic General Pediatrics; Children's Hospital Colorado position.

Steve was a champion, mentor, friend, colleague and much more to so many of us. He had the capacity to visualize where opportunities could be seized, created collaborations where others might have not seen potential, encouraged each of us to stretch our wings and apply our skills for service to the global community and advance the practice of clinical medicine and research in places where science/community medicine are challenging to implement.

His will be missed by all of us and we look to continue his legacy and deep sense of commitment to advocate for those in extreme poverty, improving their lives in health, building sustainable communities and empower communities to drive out hopelessness and despair.

Our Center staff is delighted and grateful to the Berman family and friends for the establishment of the Stephen Berman, MD, Endowed Chair for Global Health. This gift honors Steve's legacy and will support the new Director for the Center for Global Health providing resource for greater collaboration in research, education and health services for transformative interventions of global health challenges.

“

**BY WORKING COLLABORATIVELY, WE
WILL ADDRESS THE NEED TO PROMOTE
SUSTAINABLE ECONOMIC DEVELOPMENT
IN THE POOREST AREAS OF THE WORLD...**

- STEPHEN BERMAN



INTRODUCTION

Our Center for Global Health staff and faculty are grateful for the support we have received while deeply missing Steve Berman’s guiding hand. This indeed has been 8 months of change. We thank Dr. Jon Samet for his service as the Dean of the School of Public Health and welcome Dr. Cathy Bradley as our new Dean and looking forward to welcoming our new Director who can guide our Center towards more relevant and impactful engagement with all our colleagues and partners here at CU Anschutz and the world over. You all have been very patient and helpful answering our many questions. The Center, as you read through this year’s report, continues the journey left to us by Steve and we are forging forward to new horizons. We look to a stellar year in 2024 when many more new meaningful and transformative things are sure to happen.

History

Chancellor Georgia Leah-Laurie established the Center for Global Health (CGH) in 2002 under the CU Denver Office of the Provost and appointed Blair Gifford in the CU School of Business as the first director. In 2004, Dr. Calvin Wilson, a distinguished expert in global health and professor of family medicine, became the director of the Center. In 2006, Chancellor Roy Wilson moved the Center from the Denver downtown campus to the CU Anschutz campus where it was incorporated into the Colorado School of Public Health (CoSPH). Once on the CU Anschutz campus, Dr. Calvin Wilson

launched the School of Medicine student global health track and a Centers for Disease Control and Prevention funded project to create family medicine residency in Rwanda. In 2011, Dr. Wilson returned to Rwanda to work full-time on his family medicine project. Richard Hamman, the Dean of the School of Public Health, appointed a new director, Dr. Stephen Berman, a pediatrician with extensive global research and policy experience working with the Institute of Medicine, the National Institute of Health, the Pan-American Health Organization (PAHO) and the World Health Organization (WHO).

The University of Colorado and Children’s Hospital Colorado (CHCO) signed an initial memorandum of understanding (MOU) in 2011 agreeing to jointly support the Center faculty, staff, and programs. The MOU serves as the foundational partnership agreement between CGH, CHCO, the Schools of Medicine, Dentistry, Nursing and Pharmacy. The Center was designated in 2012 as the PAHO/WHO Collaborating Center to Promote Child and Family Health. The Center has an outstanding multidisciplinary faculty committed to its mission. While located within the academic structure of the CoSPH, the Center serves as a resource to all the schools on the CU Anschutz campus as well as schools on the CU Denver campus.



Mission

The Center for Global Health has a threefold mission: First, provide outstanding educational programs in Colorado and globally. These programs transmit knowledge, build local capacity, and inspire participants to transform the population health of their own communities as well as impoverished communities around the world. We are committed to supporting the professional development of our students, trainees, and junior faculty so they will have successful, productive careers. Second, carry out impactful multidisciplinary research

that will advance our understanding of health as well as disease and inform global policy making. We provide a platform for the integration of clinical science, basic bench science, epidemiology, and public health, that has both local Colorado and global perspectives. Third, design, implement and evaluate transformative interventions in low resource settings that can be replicated and taken to scale for better healthcare, better health and a better future for children and their families.

We look forward to a
STELLAR YEAR IN 2024
with numerous and
planned ongoing activities!



GUATEMALA HEALTH SITE

Site at Trifinio

Established in 2012 in partnership with Agroamerica, the signature site in rural Guatemala (Trifinio) has continued to expand its comprehensive activities in research, education, service and advocacy in the areas of maternal-child health, agricultural worker’s health, emerging infectious diseases, and school and family health. In the academic year 2022-2023, Trifinio restarted its global health rotations for CU students, residents and faculty after the COVID-19 pandemic pause. The Child Health Associate/Physician Assistant program hosted 22 students for their month-long rotation, 7 pediatric residents and 2 internal medicine provided direct supervised-service at the FUNSALUD clinic, and the College of Nursing began clinical and field rotations for Nurse Practitioner and Nursing students.



Dr. Guillermo (Tony) Bolaños discussing cases with Dr. Rosario Medina from the CU College of Nursing (Above)

FUNSALUD Clinic

The FUNSALUD Clinic, first opened in 2014, provides direct health care to workers employed by AgroAmerica and their families as well as being accessible to the 22 communities nearby. The clinic has urgent care capacity, two minimum-risk labor and delivery rooms, three clinics, ultrasound, laboratory and pharmacy on site. Staffed by two Guatemalan physicians (Dr. Bolaños and Dr. Siguenza) who provide direct care and supervise a number of trainees from both Colorado and Guatemala and two nurses and provide an average of 3,000 consultations per year. The clinic became a key source of health care and support for the communities during the pandemic. It coordinated the vaccination of agricultural workers with 97% coverage of two-doses of the COVID-19 vaccine. During their visiting rotations CU students present on various clinical topics and carry out qualitative improvement projects to improve the care and capacity of the clinic.



Research

Over the past 10 years, Trifinio was key to developing and implementing translational research in emerging infectious diseases, advanced diagnostics, and maternal child health. Supported now by 2 grants from the Strategic Initiative for Research from the CU School of Medicine, Trifinio has developed research and laboratory capacity to lead transformative projects in Global Health.

Dr. Daniel Olson, initially as part of his 3-year K23 NIH grant to study the clinical and economic impact of respiratory illness on Guatemalan farm workers and their families, has led its expansion into evaluating household transmission of respiratory viruses and the cost-benefit of influenza and COVID-19 vaccination programs in agricultural workers.

The Trifinio research program has now attracted funding from the Centers for Diseases Control and Prevention (CDC), to study the dynamics of household transmission of COVID-19, influenza, and RSV in these rural communities, and among migrants along the Guatemala-Mexico border.

Additional studies include a collaboration with Colorado State University to study xenosurveillance for detecting emerging pathogens in mosquito blood meals (see NPR story), a collaboration with Dr. Ross Kedl of CU School of Medicine (SoM) to implement multiplex serologic testing for arboviruses sponsored by Merck Inc., a study of zoonotic influenza exposure in humans and animals (CDC), multiplex PCR testing of individuals with febrile and respiratory illness and mosquito surveillance (US Navy,) and a collaboration with University of North Carolina to study maternal-infant immunity to norovirus infection (NIAID R21).

<https://www.npr.org/sections/goatsandsoda/2023/02/08/1154098847/ready-aim-suck-up-mosquitoes-an-insectazooka-aims-to-find-the-next-killer-virus>

<https://www.npr.org/sections/goatsandsoda/2023/02/19/1153911199/a-kid-in-guatemala-had-a-dream-today-shes-a-disease-detective>

COMMUNITY HEALTH PROGRAMS

Creciendo Sanos (Growing Up Healthy)

The maternal-child health community programs were established in 2012 by Dr. Edwin Asturias and Stephen Berman to tackle the increasing levels of food insecurity and malnutrition, poor child development and neonatal morbidity and mortality in the area. This decade-long program is a developing model for nurse-family partnerships in rural Guatemala using evidence-based interventions to ensure the well-being of mothers and children in these communities is currently being implemented by Dr. Pamela Prag (College of Nursing), Melisa Jaenisch (CGH), Claudia Rivera and Dr. Lisa Umphrey (CGH and CHCO).

Niños Sanos (Healthy Children)

Niños Sanos, a program initiated in parallel with Madres Sanas in 2013 to improve growth and development of young children, began as a group-visits model of care. At the start of the COVID 19 pandemic, the program pivoted to individual visits. The response to this change was overwhelmingly positive on all sides. Nurses were able to cater education to individual households and caregivers participated actively and asked more questions. This also meant that more nurses were needed to complete individual visits. Fortunately, Peter Durst provided a 5-year grant to add 2 nurses to the program, one of which leads the adolescent mother program detailed below. The same funding also supports a nurse/social worker who supervises the maternal mental health program (ALMA) described below.

This past year in the program nurses conducted 3,500 visits to 631 children with 238 referrals for followup with a doctor. Children enrolled in the program are eligible for free doctor visits at the FUNSALUD clinic.

In 2022, the Niños Sanos successfully integrated a special program for adolescent mothers in which they receive weekly visits for the first 6 months of their child's life. Twenty-seven adolescent mothers ranging in age from 14-18 years old participated in the first year of the program.



In addition, a **family planning pilot program** was made possible with funding from The Summit Foundation providing reproductive health counseling and select supply of methods to women in the community health programs.

Madres Sanas (Healthy Mothers)

In 2022, the CU College of Nursing stepped in to form a natural partnership and provide support for the Madres Sanas program. They work hand in hand with the local Guatemalan nurses to provide regular programmatic and technical support. From routine monthly training to supporting more intensive ultrasound training, capacity building is a main focus. The Madres Sanas program enrolls ~250 pregnant women per year who receive a total of 1,643 home-care visits ensuring a healthy pregnancy and postpartum. In 2023, with the collaborative work between Dr. Nancy Krebs' Global Network for Women and Children Health Research (NICHD) based in the highlands of Chimaltenango, the Madres Sanas pregnancy registry and program will be incorporating the latest evidence of care developed by the network partners.

Last year the Creciendo Sanos program joined forces with the local ministry of health officials to provide training and midwifery kits to local midwives. Project Cure has provided over 63 midwifery kits. Guatemalan and US Medical students rotating through the site participate in training the midwives as well.

Malnutrition (PROGRESAN)

In the fall of 2019, a malnutrition program dedicated to helping children 6-59 months old with chronic and/or acute malnutrition was established with funds from Agroamerica, Dr. Steve Berman, and the Rowan Family. This program is becoming a model for nutritional intervention integrating a comprehensive monitoring, nutritional recovery and research of moderate to severe malnutrition. In 2022, 140 children between 6-24 months old have been cared for by this program with 20% suffering from acute malnutrition and the other with chronic malnutrition. This program is now opening opportunities for research on nutritional interventions led by Dr. Doug Taren and Mirella Barrientos.



ALMA (Maternal Mental Health)

ALMA is a peer mentoring program for depressed pregnant or postpartum women that was co-created by Dr. Sona Dimidjian and the CREST Lab at UC Boulder. In Creciendo Sanos, program nurses train mothers in basic helping skills and skills of behavioral activation. Behavioral activation seeks to increase contact with sources of reward by helping them get more active and, in so doing, improve one’s life context. They are also taught to identify values that help them guide the selection of activities to increase mood. Behavioral activation has a significant evidence base, and is simple enough to be delivered by non-mental health professionals with sufficient training and supervision. ALMA lasts for 6-8 sessions and is conducted biweekly.

The Creciendo Sanos nurses now screen all pregnant women and mothers in the Creciendo Sanos program for depression and psychosocial distress. Since the start of the pilot, in January of 2022, 61 women have qualified for the program and nurses have delivered 188 sessions.. The mean age of qualifying mothers was 23.9 years. Mean depression scores after receiving ALMA show a significant improvement related to the program (Mean PHQ = 1.38, SD = 3.72).

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Big Decisions School Program (Program for School Aged Children)

Big Decisions (BD) is a comprehensive sexual health education program for adolescents that seeks to reduce unplanned pregnancies and sexually transmitted diseases so that teenagers can achieve their goals and dreams. The Big Decisions program began in 2016, led by Claudia Luna-Asturias, LSW and Nimsy Ramos, MHE, with 10 lessons adapted and aimed at young people from 11 to 19 years of age. Due to the COVID-19 pandemic, schools remained partially closed until early 2022 and started under a hybrid schedule. In January 2023, schools re-opened.

In October and November 2022, due to the abrupt increase in adolescent pregnancies who do not attend school, a pilot of the Big Decisions program was instituted to educate adolescents living around the FUNSALUD clinic. The lessons were taught at home, either on a “one on one” basis or in small groups. Seventeen adolescents were recruited but only 9 finished the program. The results of the young women completing the program demonstrated that they had acquired more knowledge and better judgment regarding their decision to have sexual relations and understood the importance of using contraceptive methods.

Scope of the Big Decisions Program
JULY 22’ - JULY 23’



Students
Enrolled
1338



Female
Students
690



Male
Students
648



Number of
Institutes
12



Lessons
Taught
360



Number of
Graduates 22’
215

ORGANIZATION ACTIVITIES

WHO Collaborating Center

The CGH is proud to be the only WHO collaborating Center for ‘family and child health’ in the Americas. The WHO collaborating center status is an important achievement and gives the CGH the ability to collaborate within PAHO and WHO in the areas of immunization, neonatal health, disaster preparedness, and integrated management of childhood illness and health.

The CGH has contributed with key evidence for PAHO/WHO policy making, including several publications on child neurodevelopmental tools (ASQ, MSEL, etc) led by Dr. Amy Connery, Dr. Molly Lamb, and Dr. Allison Colbert, as well

as continuing to train global health providers in Helping Babies Breathe and Helping Mothers Survive modules. The work on emerging infectious diseases, under Dr. Olson and Dr. Asturias, continues to collect evidence on the impact of COVID-19 immunization and finalizing the assessment of influenza vaccine effectiveness on agricultural worker’s productivity, economy and health. In addition, at PAHO’s request, Dr. Thomas Jaenisch is leading and implementing a survey on neonatal sepsis, in partnership with Dr. Yo Nishihara, a resident at CHCO.



WHO Advisory and Committee Roles

Dr. Edwin Asturias served in 2022 as a member of the Malaria Vaccine Advisory Group (MALVAC), and is now collaborating with WHO on the development of an artificial intelligence systems for evaluating causality of adverse events following immunization (AEFI), and maternal immunization causality assessment.

Dr. Thomas Jaenisch serves as the co-chair of the WHO Zika Virus Individual Patient Data Meta-Analysis consortium (IPD-MA) for Zika Virus pregnant women and children cohorts. He is a member of WHO’s Zika research and development roadmap for medical countermeasures. He has also served in the past as a member of the WHO Advisory Group on Dengue Burden Estimation and the WHO Expert Panel for the review of the causality framework between Zika virus infection and neurological disorders.

Dr. May Chu serves as: the co-chair of the WHO COVID-19 Infection Prevention and Control (IPC) Committee setting IPC policy and directing the IPC research agenda as well as being the co-chair of the WHO COVID-19 IPC Guidelines Development Group (GDG). She is a member of the Laboratory Diagnostics Group for COVID-19 and of the sub-working group on Reference Standards. She is a long-time member of the WHO GDG on Ebola and Marburg Hemorrhagic Fever Personal Protective Equipment (PPE) for Health Care Facilities and Research Prioritization for PPE.

EDUCATION OPPORTUNITIES

This past year, the Center has focused on strengthening our educational and training programs on the Anschutz Medical Campus. Our global health fellowship program, under the leadership of Dr. Daniel Olson, continues to expand to more disciplines and attract highly qualified candidates. The Center is facilitating better coordination among the schools and departments that are offering international training experiences. The College of Nursing, under the leadership of Dr. Pamela Prag, is taking the lead on offering a suite of courses including Helping Babies Breathe, Helping Babies Survive, and Helping Mothers survive. The Center is facilitating discussions on possible global health multidisciplinary educational collaborations with all schools on campus.

In the global educational arena, with the leadership of Dr. PK Vedanthan, the Center continues to co-sponsor the fellowship training in allergy, asthma, and immunology at the Postgraduate Institute of Medical Education and Research Chandigarh, India. The Center is also a co-sponsor of a new successful program called Diploma in Pediatric Sleep Medicine. The co-directors of this program include Dr. Bharath Kumar Reddy (Shishuka Children's Specialty Hospital), PK Vedanthan, and Stephen Hawkins, a pediatric sleep medicine physician at Children's Colorado Hospital. The program involves many Departments of Pediatrics faculty in pulmonary, ENT, and psychology.



Global Health & Disasters Course

The Global Health and Disasters course is an in-person course that prepares its participants for international experiences and future global health work. The interactive training incorporates readings, lectures, small group problem-based learning exercises, technical skill sessions, and a disaster simulation exercise. Course lectures and activities are presented by faculty with extensive experience in global health and disaster response. Our two-week Global Health and Disasters course was held in-person in October 2022 with international faculty joining virtually via Zoom platform for week two. Our course directors are Dr. Daniel Olson and Molly Lamb for week one, global health and Dr. Joseph Wathen and Lisa Umphrey for week two, pediatrics in disasters. Dr. Lisa Umphrey led the effort to write up our experience and the article has been published in the Fall Edition of Advances in Pediatrics Journal.

In 2022, the course directors recruited
**60 US-BASED
& 5 INTERNATIONAL
FACULTY**
(all from low-to middle-income countries).

In 2022, the course directors recruited 60 US-based and 5 international faculty (all from low-to middle-income countries). Among 31 participants, all attended the course in-person. 100% of the in-person participants successfully passed knowledge assessments (93% average composite score). Participants and facilitators reported overall satisfaction with the course, agreeing that it met the stated aims and objectives. Positive themes included: international faculty presence; strong course organization; and pertinent course content. Negative themes included: limited applicability of course content for public health audiences or those in low-resource settings. While future courses must address challenges, the PEDS Course structure successfully achieved course goals and incorporated international faculty. Lessons learned will guide future course revisions and fellow global health educators.

SCHOLARSHIP PROGRAM

Every year the Center for Global Health offers scholarships for students with a focus in global health. The Robinson Durst Scholarship, Rotary Scholarship, Global Chest Initiatives Scholarship, and the Calvin L. Wilson Scholarship for Future Leaders in Global Health are the four different types of scholarship the Center offers. All graduate students in the health professions through the university are eligible for the award.

Types of Scholarships

Robinson Durst Scholarship: The Center for Global Health coordinates the scholarship that was founded by Professor Emeritus William Robinson, MD, PhD, and Denver sculptor/ceramicist Peter Durst. Philosophically, the scholarship committee and its founders strongly believe in the long-lasting, positive value of global health endeavors in broadening personal and academic perspectives.

Rotary Scholarship: Rotary clubs from the Denver Metropolitan Area have been generous supporters of our students. These scholarships provide our students with exceptional educational opportunities that fits with the core

values of Rotary, including fellowship, service, and ethical conduct. The Center administers the scholarship in close collaboration with Rotary leadership.

Global Chest Initiative Scholarship: Global Chest Initiative (GCI) supports pulmonary and allergy related scholarships that combine both fieldwork (doing a survey, epidemiology research) and hospital-based (clinical, lab work). The funds are provided by Dr. Pudupakkam Vedantha and his wife.

Calvin L. Wilson Scholarship: Dr. Calvin L. Wilson, a physician whose career spans many countries and cultures, served as director of the Center for Global Health from 2004 through 2010. The model and leadership of Dr. Wilson inspired this scholarship so that the University of Colorado students have an opportunity to engage in a culturally diverse clinical and/or research experience during their graduate training. Philosophically, this scholarship is grounded in a deep commitment to the long-lasting, positive value of international health care as it relates to broadening personal and academic perspectives.

In 2022, thanks to the help of our funders, our scholarship recipients were able to focus their research projects on the following topics:

“Smoking Cessation Strategies and Project Management Support to the Air Quality and Cardiopulmonary Health Outcomes Study, in HIV/AIDS-focused Community Organizations located in South Africa” by student **Ataleigh Inhoff**. Awarded a combination of the Robinson Durst and Calvin Wilson Scholarships.

“Creating a Sustainable Electronic Database of Patients with Structural Heart Disease alongside the Cardiology Department at Tribhuvan University Teaching Hospital (TUTH)”, in Nepal by student **Claire Jacobson**. Awarded the Aurora Fitzsimons Rotary Scholarship.

“Associations between Extreme Weather Events and Hospital Admissions at the Belau National Hospital between 1980-2020 in Koror, Palau” by student **Alessandra Santiago**. Awarded the Southeast Rotary Scholarship.

“Implementation of Echocardiography Training and Scanning for Rheumatic Heart Disease (RHD) in Rural Communities through Team Heart in Rwanda”, by student **Reed Van Hook**. Awarded the Global Chest Initiatives Scholarship.

“Anti-coagulation after Valvular Surgery Among Pregnant Women in Rwanda” by student **Victoria Clair**. Awarded the Denver Rotary Scholarship.

For our 2023 scholarship cycle, thanks to the generosity of our funders, we awarded seven students interested in pursuing their global health research projects in various locations around the world.

Laurel Bawling and Munib Far, were awarded the Peter Durst Scholarship, both of whom will focus on “Analyzing Emergency Medical Care Delivery in an Academic Tertiary Care Center” in Cape Town, South Africa.

Songhee Han, was awarded an Aurora Fitzsimons Rotary Club scholarship to pursue “Xenosurveillance as a Tool to Evaluate Emerging Infectious Diseases in Banana Plantation Workers and their Families” and “Testing Clinical and Research Samples with Multiplex PCR for Pathogens that cause Respiratory, Febrile, and Gastrointestinal Illnesses” in southwestern Guatemala.

William Herold received the Cal Wilson scholarship to conduct research on “Screening for Depression, Anxiety and Suicidal Ideation in School Adolescents” in Rural Guatemala.

Gena Weir received the Evergreen Rotary Club scholarship to conduct research to “Identify and Investigate Barriers to Reporting for Victims of Sexual and Intentional Physical Violence, particularly in Mountain Resorts in Colorado with High Populations of Seasonal Immigrants and Examining Cultural, Equity, Race, and Ethnicity as Potential Barriers to Utilization of Services”.

Luana Gnatenco and Morgan Dewey received a combination of both the Denver Rotary Club and the Global Chest Initiatives scholarships for their joint research project on conducting “A Quantitative, Cross Sectional Study Investigation Nepalese Smokers Desire to Quit and Possible Barriers to Smoking Cessation”, in Nepal.



GLOBAL HEALTH PATHWAY

The Global Health Pathway Program was created in 2012 by Dr. Edwin Asturias, Marsha Anderson, Becky Gaensbauer, and Gretchen Domek. The inaugural class of residents started in 2013. The Global Health Pathway Program is designed for those pediatric residents who plan to have a career focus in Global Health or plan to incorporate care of international populations into their practice (e.g., regular international experiences, work in resource limited settings, work with displaced populations). The overarching goals of the pathway are to:

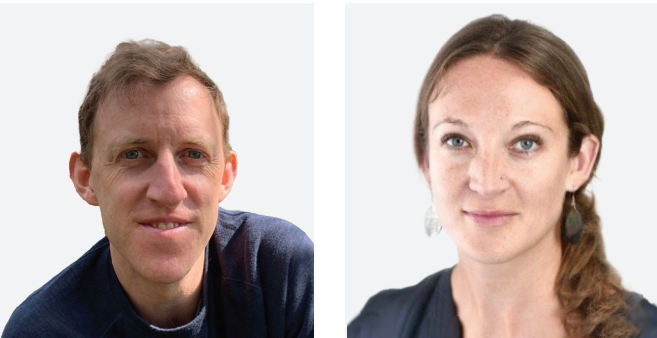
1

Provide educational opportunities and professional development for pediatric residents, so they can successfully recognize and address health disparities in international and domestic populations in need.

2

Train physician leaders in pediatric clinical medicine, teaching, health policy, and research in global health.

The Global Health Pathway Program, now under the leadership of director Dr. Leana May Moser, and co directors, Drs. Jessica Landry and Lisa Umphrey, continues to grow every year. In 2022, we had eighteen residents total in the Pathway Program and had seven residents graduate in June. Throughout our 2022-2023 academic year, Global Health Pathway implements several modules from the Simulation Use for Global Away Rotations (SUGAR) Prep curricula, which include clinical simulation sessions, pre-trip sessions for global health away rotations, and local global health advocacy sessions. In our 2022-2023 academic year, we also hosted four global health journal clubs co-facilitated with our third-year residents and our global health fellows.



Current & Future Global Health Fellowship Directors
Dr. Dan Olsen (Above) and Dr. Lisa Umphrey (Below)

Global Health Pathway Residents:

GRADUATED IN 2022

Miriam Ben-Abdallah, MD
Amy Chambliss, MD
Matt Guerrieri, MD
Margit Mikkelsen, MD
Brianna Morgan, MD
Brooke Mueller, MD
Leah Williams, MD

GRADUATED IN 2023

Nathan Howell, MD
Kathryn Kalata, MD
Celia Lenarz-Geisen, MD
Chloe Stiggelbout, MD
Margaret Tashjian, MD
Faith O'Reagan, MD

GRADUATING IN 2024

Isabel Hardee, MD
Mollie Lesser, MD (Pediatric
Neurology)
Carly Muller, MD
Sheridan Schulte, MD
Valerie Teano, MD

GRADUATING IN 2025

Alice Burgess, MD
Lucas Morgan, MD
Hanna Ravi, MD
Scott Stuart, MD
Sandra Zoubovsky, MD

GRADUATING IN 2027

Grace Newell, MD (Pediatric
Neurology)

GRADUATING IN 2028

Alyssa Zlatkin, MD (Physical
Medicine and Rehabilitation)

Global Health Fair

The Center hosted our annual Global Health Project Fair in January of 2023 via Zoom. More than twenty global health players and organization attended, such as the Global Livingston Institute, the Prevention Research Center for Family and Child Health from University of Colorado, Locally Haiti, Partners for Conservation, ATLAS International Inc, Community Volunteer Services Tanzania, International Asthma Services dba Saahns, the Community and Behavioral Health department from CU Anschutz, and many more CU Anschutz-based researchers. These organizations met to discuss their work and research opportunities with more than fifty Colorado School of Public Health and CU Anschutz medical students interested in pursuing global health opportunities. Those who attended learned about global health opportunities in areas such as Uganda, Rwanda, El Salvador, Nicaragua, Haiti, villages in Western Kenya, East Africa, Eastern Uganda, India, Indonesia, Philippines, Colombia, Panama, Mexico, Tanzania, Guatemala, and Nepal. Students were played into breakout groups depending on their organization or geographic area of interest where they could connect with the organization or researcher to hear more about their work and any opportunities. For our 2024 Global Health Project Fair, we will distribute evaluations to the global health organizations and to those students who attend to get a more comprehensive idea on how to be the most impactful.

CGH has been steadily expanding our research activities - with a focus to broaden and deepen our 'pandemic preparedness posture and to engage in more 'child health/development studies'. The CGH is nationally and internationally recognized for research, education, and service in these thematic areas.

Pandemic Preparedness

CGH has stepped up during the COVID-19 pandemic with public health information and community service at home as well working with global partners around PPE use and decontamination, diagnostic testing, seroprevalence estimation, and schoolchildren health. This portfolio of activities has extended during the last year and is fueled by a number of different grants. The focus of this section is to showcase how these activities synergize to strengthen our ability to be prepared for the next pandemic.

General efforts and outputs with regard to pandemic preparedness include multiple publications including two policy papers published by the faculty that highlight the efforts towards pandemic preparedness and supporting our global coordination effort to standardize, harmonize data, test results across the globe.

Global Health "Local"

As described in last year's report, our faculty worked with local schools to establish CDC's Test-to-Stay in School COVID-19 testing in

2022, which provided us with local recognition and to a 'spin off' research on the association of Air Quality Interventions in schools to School Absenteeism. This is a 3-year contract awarded to us by CDC in August 2023 to elucidate how Air Quality interventions in schools would actually translate to better health outcomes for students and teachers across the state of Colorado in 2,300 classrooms. This project is in collaboration with Dr. Mark Hernandez, Professor of Civil, Environmental and Architectural Engineering and the Environmental Division of the Colorado Department of Public Health and Environment. The local efforts during the pandemic also included the PVA (Polyvinyl Alcohol) Mask Study (led by Dr. May Chu, funded by WHO), where we pilot-tested PVA strips embedded in N95 masks to capture SARS-CoV-2 in university settings on the Front Range. The aim of the study was to better understand transmissibility as opposed to disease. The preliminary results and the study design were published during the last year.

How to combine data sets on emerging pathogens?

One of the problems faced in past pandemics has been that the number of infections in explosive outbreaks increased and then subsequently decreased rapidly. A research response, involving human ethics clearance, training of local partners, and acquisition of funding, has often been too late - and in the

case of Zika virus for example only captured the tail end of the outbreak, with limited numbers of cases included for natural history studies. In addition, the local resources were strained in outbreak situations. 'All hands on deck' meant that there was no additional personnel that could be dedicated to research activities.

Therefore, resulting data sets were too small and needed to be combined. However, to meaningfully merge heterogeneous datasets is not trivial. Within the ReCoDID project, led by Dr. Thomas Jaenisch ("Reconciliation of Cohort Data for Infectious Diseases", funded by the European Commission), the focus was to develop methods as well as the infrastructure (legal/ethical as well as technological) to merge not only heterogeneous infectious disease cohort data but also to bridge the divide between the clinical epidemiological data as well as the high dimensional laboratory data. The work on data sharing for infectious disease cohorts also includes a collaboration with WHO (as mentioned in the WHO section)

Harnessing the power of serological data for surveillance and pandemic preparedness

After the COVID-19 pandemic, we are convinced that the full potential of serological data for surveillance and preparedness can be harnessed with some additional work that we are invested in. Within the ReCoDID project, we have engaged in harmonization of serological data in order to combine and compare data sets. Our vision is a serological 'observatory' which serves surveillance purposes as well as builds a backbone for data sets that can be analyzed by scientists in various regards, much like GISAID or NEXTSTRAIN for virological data. The power of serological data can be shown in this figure where we assessed vulnerability to future Zika virus outbreaks in South America and Africa by comparing the seroprevalence rates at the end of the epidemic in 2016/17 (representing herd immunity) versus the (expected) environmental suitability for transmission.¹

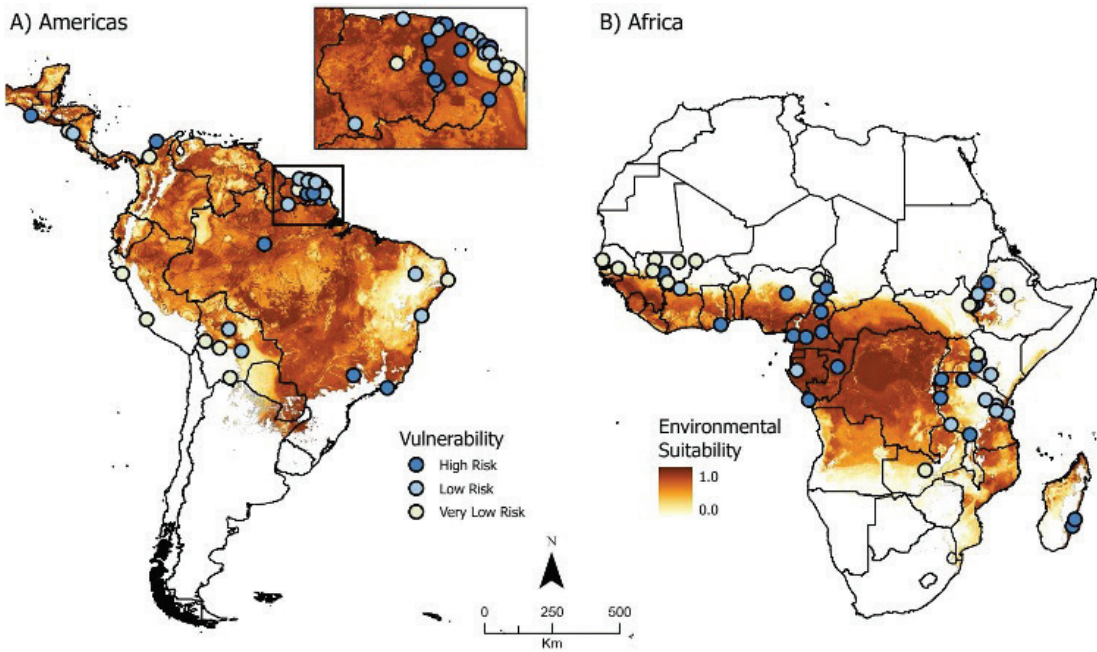


Figure 1: Distribution of vulnerability to future outbreaks for (A) the Americas and (B) Africa with environmental suitability depicted (by Yannik Roell)

African Serosurveillance Program for Emerging and New-Infectious Diseases (ASPEN-ID)

ASPEN-ID is a Gates Foundation funded project on multipathogen serosurveillance using Luminex multiplex serology platform (led by Dr. May Chu), we are collaborating with four countries in Africa (Kenia, South Africa, Malawi, Sierra Leone) to create a harmonized dashboard for serosurveillance aimed at informing decision makers and harnessing the power of serology for preparedness research and for interventions (for example for vaccine-preventable diseases). CGH serves as the standardization and new methods lead for this effort.

Virtual Biorepository System-preparedness to develop diagnostic tools to calibrate laboratory test results

The Virtual Biorepository System (VBS) is predicated on building a sustainable, long-term infrastructure that provides access to specimens all the world over, specimens related to outbreak-prone infectious diseases with the aim to improve preparedness to respond to epidemics; a system that provides equitable and transparent process to access samples. We pull together the assets from Trifinio (as pilot evaluation site), ReCoDID (standardization) along with partners like The Global Health Network (Oxford University, UK), Foundation for Innovative Diagnostics, the Center for Research in Emerging Infectious Diseases (NIH, Duke University) with the Pandemic Response Repository (NIH), Coalition for Epidemic and Pandemic Initiative, ZikAlliance and SeroTracker. In 2022-2023, we completed an online Delphi process (oDp) led by Dr. Amy Price of Stanford Medical School that provided

prioritization and direction for the tasks ahead. Our main task at first is to establish a partnership of 10 diverse regional sites to each provide 10 ml characterized human plasma/serum from healthy individuals (10X10 project) as the force multiplier for later expansion. We aim to also expand to include disease-specific materials and the use of humanized monoclonal antibodies as reference materials. These materials will allow for diagnostic test calibration, for determining vaccine efficacy and for research. The initial work of the 10X10 has been funded in work package 4 of the European Commission-funded CONTAGIO project for 3 years.

Child Development

Our center continues to produce important research around child development. During the past year we have published extensively on methodological approaches around child development, the high prevalence of microcephaly in rural Guatemala, and the predictors and neurodevelopmental consequences of microcephaly.

The Zika virus epidemic has put the spotlight on microcephaly, and as a result we have discovered a high prevalence of microcephaly at our site in rural Guatemala, regardless of Zika infection status. Most children with microcephaly have a head circumference 2-3 standard deviations below the mean, which is classified as 'moderate microcephaly', with a few children having 'severe microcephaly' (> 3 standard deviations below the mean) as well. The big research questions are a) if this is a new phenomenon, or an overlooked existing phenomenon, and b) how much of this microcephaly is due to 'chronic' aetiologies (generational malnutrition, environmental factors) vs. acute aetiologies (eg. infectious



disease before and after birth). Methodological issues also need to be addressed - for example how to correctly measure and categorize microcephaly in a given population, and how to account for gestational age in a population in which gestational age is rarely known, and without which the current WHO Intergrowth standard cannot be applied. Additional research questions concern the long-term neurodevelopmental consequences of microcephaly and other congenital abnormalities.

The CGH has assembled an expert group that meets every 3-4 months, which includes researchers from Children's Hospital as well as from CGH in order to streamline and strengthen the role of CSPH and CU Anschutz researchers in this broadly applicable research area.

Arbovirus Research Consortium

'Arthropode borne viruses' include Dengue, Zika, Yellow Fever, and West Nile Viruses, all transmitted by mosquito vectors. The arbovirus research consortium was initiated in 2019 to support and condense the ongoing research efforts on arboviruses in the Center for Global Health, at medical school and the AMC Anschutz hospitals, in collaboration with the center vector borne disease research center at CSU Fort Collins.

A number of papers on Dengue case definition and risk factors for severe dengue were published in the last year, which date back to consortia led by Thomas Jaenisch some years ago. Current activities include a) the preparation of a Memorandum of Understanding (MOU) with CDC Fort Collins - vector-borne disease unit; and b) an ongoing collaboration with Roche Pharmaceuticals on biomarkers for severe dengue, which also include pilot-testing of the role of Point-of-Care Ultrasound.

For 2022, Thomas Jaenisch and May Chu coordinated and co-hosted a symposium on the State of Zika Virus Diagnostics at the American Society for Tropical Medicine (ASTMH) annual meeting. This was the first face-to-face with hybrid component professional meeting in 3 years and was attended by Zika and arbovirus clinicians and virologists. We summarized comparison of commercial Zika diagnostic tests under the aegis of the ZikAlliance project and updated on new Zika diagnostic tests for point of care tests for ante-natal clinics as early detection tools for pregnant women. We had an open session to discuss how to calibrate testing and heard from WHO Arbovirus Initiative on needs of reliable testing to serve the most vulnerable population.

The mosquito vectors transmitting arboviruses are spreading north due to climate change and global warming, with migration and travel providing ample opportunities for introduction of new viruses into local mosquito populations. Mapping of environmental covariates for transmission has been an important tool for projecting future emergence scenarios and therefore we have invested into mapping expertise at the CGH, which is currently included in several of our research projects.

Center for Global Health

GRANTS

FY 2023 Grants at the Center for Global Health and in collaboration with other Department/Centers at the University of Colorado Anschutz Medical Campus.

Active Grants FY 23'					
Project	Timeline	Location	Funder	Faculty Lead	Amount
RSV antibody transfer in mother-infant premature & term pregnancies (PRISERO)	March 13, 2022- March 12,2027	Guatemala	PFIZER	Dr. Edwin Asturias	\$536,960
Gates SEROSURVEILLANCE	Feb 23,2022- Dec 31,2023	N/A	Bill & Melinda Gates Foundation	Dr. May Chu	\$957,219
Caregivers in Carolina	May 01, 2022- March 31, 2024	N/A	University of North Carolina- Chapel Hill	Dr. Molly Lamb	\$15,726
Measuring the Clinical and Economic Impact of Influenza in Guatemalan Agricultural Workers	Feb 21, 2020- Feb 20, 2025	Guatemala	Roche Molecular	Dr. Daniel Olson	\$37,913
Urine Antigen Detection assay for pneumonia in Guatemalan children	June 28, 2018- June 30, 2024	Guatemala	PFIZER	Dr. Edwin Asturias	\$1,167,049
Epidemiological surveillance of Respiratory Diseases	July 1, 2021- Sept 30, 2023	Guatemala	Center for Disease Control	Dr. Daniel Olson	\$676,703
Epidemiological surveillance of Respiratory Diseases	Oct 1, 2022- Sept 30, 2023	Guatemala	Center for Disease Control	Dr. Daniel Olson	\$113, 885
Expand Epidemiological surveillance of respiratory diseases	Sept 30, 2022- Sept 29, 2023	Guatemala	Center for Disease Control	Dr. Daniel Olson	\$148,717
Real-Time sequencing of SARS-COV 2 and influenza virus in rural Guatemala	Oct 1, 2022- Sept 30, 2023	N/A	Center for Disease Control	Dr. Daniel Olson	\$161,273
Burden and transmission dynamics of SARS-COV-2 and influenza virus in migrant shelters along the Guatemala-Mexico border	Oct 1, 2022- Sept 30, 2023	Guatemala	Center for Disease Control	Dr. Daniel Olson	\$113, 885
Reconciliation of Cohort data in Infectious Diseases (ReCODID)	July 1, 2020- Dec 31, 2023	N/A	European Commission	Dr. Thomas Jaenisch	\$757,269
Towards an African platform for congenital abnormalities Timeline (Period	June 22'- Dec 24'	Burkina Faso and Ivory Coast	BMGF Grand Challenges pilot grant	Dr. Thomas Jaenisch	\$5000
Clinical and economic impact of respiratory infections in a cohort Guatemalan agricultural workers, and the natural history and protection of the SARS- CoV-2 and seasonal corona virus antibody response	Oct 30, 2020- Oct 29, 2024	N/A	Roche Diagnostics	Dr. Daniel Olson	\$461,227



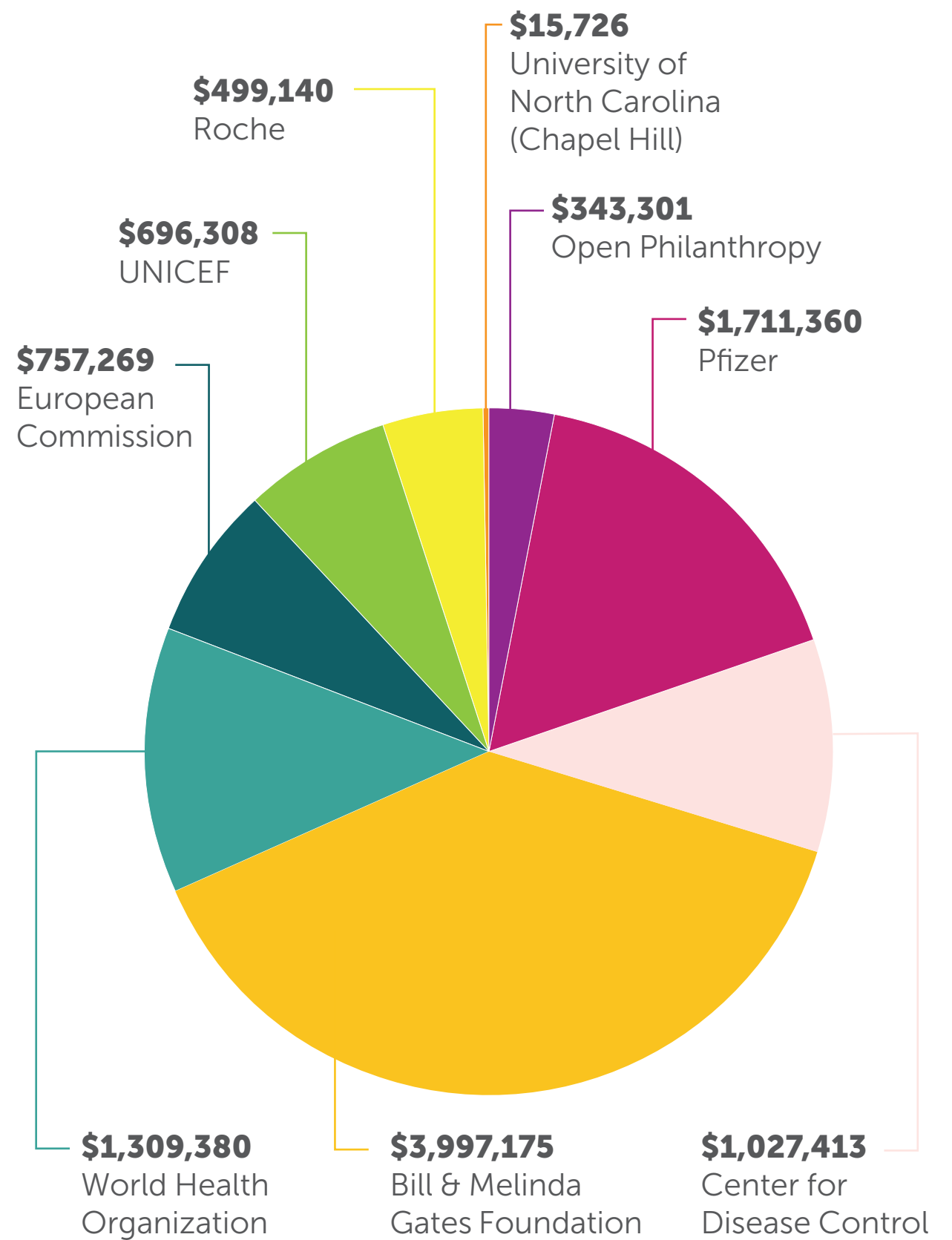
Expired Grants FY 23'					
Project	Timeline	Location	Funder	Faculty Lead	Amount
Asymptomatic and Pre- symptomatic trans- mission of SARS- CoV-2 in a community congregant setting	Oct 30, 2019- Dec 31, 2022	N/A	World Health Organization	Dr. May Chu	\$494,498
WHO DeMaND2 Package of PPE Related Studies to Improve IPC Practice and Safety	Nov 23,2020- Dec 31,2022	N/A	World Health Organization	Dr. May Chu	\$814,882
Caregivers in COVID-19 Health Care Worker Study in AMC hospitals"	Oct 2, 2020- March 31, 2023	N/A	CDPHE	Dr. Thomas Jaenisch & Steve Berman	\$125,000
Expanding Xenosurveillance Capabilities in Central America	July 11, 2020- May 31, 2023	N/A	Colorado State University	Dr. Daniel Olson	\$150,545
Pathway to Scale for Zika Diagnostic Tests	July 1, 2020- Dec 31, 2022	N/A	UNICEF	Dr. May Chu	\$696,308

Award Grants On The Horizon			
Project	Funder	Faculty Lead	Amount
CONTAGIO	European Commission	Dr. Thomas Jaenisch	\$306,707
An observational study evaluating changing anti-DENV IgG seroprevalence and risk factors within an existing farm worker cohort and cross-sectional school-based survey in a dengue-endemic region of southwest Guatemala Funder.	Merck Inc.	Dr. Daniel Olson	\$339,529
Multi-year study to determine the causal link between HEPA-filtered/unfiltered indoor air quality in occupied classroom (K-12) settings and human respiratory disease outcomes.	Center for Disease Control	Dr. Thomas Jaenisch	\$2,221,083
Norovirus immunity at the maternal-child interface	NIAID R21 (University of North Carolina, Chapel Hill)	Dr. Daniel Olson	\$65,447
Dengue Seroepidemiology in School Aged Children and Agricultural Workers in Guatemala	Merck Inc.	Dr. Daniel Olson	\$339,177
Measuring the Clinical and Economic Impact of Influenza in Guatemalan Agricultural Workers: a Case Study for Point-of-Care Testing in Remote	Roche Molecular Systems	Dr. Daniel Olson	\$69,326
Year 6 Agricasa Funding (Oct 2023-Sep 2024)	Center for Disease Control	Dr. Daniel Olson	\$807,500



Funding Sources Fiscal Year 2023

Grants By Affiliated Faculty and Departments					
Project	Timeline	Location	Funder	Faculty Lead	Amount
Clinical Impact of BioFire BCID2 FilmArray on Early Identification of Positive Blood Cultures Coupled with Antimicrobial Stewardship in Pediatric Patients in Guatemala	Dec 14, 2021-Dec 13, 2024	Guatemala	Biofire Diagnostics, LLC.	Dr. Sam Dominguez	\$76,461
An Adaptive Strategy for Preventing and Treating Lapses of Retention in HIV Care for Adolescents	July 1, 2019-June 30, 2024	Kenya	NINR	Dr. Abuogi & Geng	\$2,920,862
Hepatitis C (HCV)	July 1, 2023-June 30, 2024	N/A	CDPHE	Dr. Lisa Abuogi	\$48,000
Piloting risk stratification and tailored interventions for pregnant and postpartum women with HIV in Kenya to prevent disengagement from care and viral failure	Sept 1, 2021-Aug 30, 2024	Kenya	NIMH	Dr. Lisa Abuogi	\$547,455
Integration of a collaborative care model for mental health services into HIV care for pregnant and postpartum women in Kenya	Aug 1, 2023-July 31, 2028	Kenya	Department of Pediatrics, School of Medicine	Dr. Lisa Abuogi	\$2,834,382
Natural history of SARS- CoV-2 Spike and Nucleocapsid IgG response to natural infection and vaccination in a longitudinal cohort of Guatemalan farm workers	2020-2025	Guatemala	Roche Diagnostics	Dr. Daniel Olson	\$866,688
AGRI STUDY	2020-2028	N/A	Department of Pediatrics, School of Medicine	Dr. Daniel Olson	\$164,781
AGRI STUDY (COVID-19 Supplement	2020-2023	Guatemala	Department of Pediatrics, School of Medicine	Dr. Daniel Olson	\$131,744
Global Pediatric Oncology - CASA section	2018-2023	N/A	St. Jude Global, St. Jude Children's Clinical Research Hospital, Memphis TN	Dr. Sandra Luna-Fineman	0.16FTE Salary support
Consultant, Cancer, Non-communicable diseases, World Health Organization	2020-2023	N/A	WHO Consultant, Global Initiative for Childhood Cancer Faculty	Dr. Sandra Luna-Fineman	0.07FTE
Research Into Visual Endpoints and RB health Outcomes after Treatment: RIVERBOAT consortium	2020-2023	N/A	RO1, NCI, NIH 5R01CA225005	Dr. Sandra Luna-Fineman	0.13FTE



MOU AGREEMENTS

In partnership with the Office of International Affairs, the Center for Global Health has 17 unique MOUs across 8 different countries. These MOUs set up collaborations with partners to better spread CGH’s mission worldwide. In addition to the countries where we have MOU agreements, we also include the countries with longstanding research collaborations.

MEXICO

Secretariat of Health and Children’s Hospital Colorado | MOU signed 12/01/2017 through 12/01/2022 | General MOU Framework in Research into Maternal and Child Health and Family

GUATEMALA

Fundacion Para la Salud Integral de los Guatemaltecos and Children’s Hospital of Colorado | MOU signed 01/01/2016 through 01/01/2021 Healthcare for Resource Limited Populations | To include General MOU Framework, Addendum A (Center for Human Development Clinic), Addendum B (Pharmacy Clinical Training), and Addendum C (Dental Medicine Clinical Training).

Humana Center of Epilepsy and Functional Neurosurgery and Children’s Hospital Colorado | MOU signed 02/02/2018 through 02/01/2023 | General MOU Framework (Training & Education)

Guatemala City- Pantaleon Group and Center for Health, Work, and Environment (CHWE) | MOU signed 08/03/2016 through 07/25/2022 Trainee Exchange Program

Guatemala City- Universidad del Valle de Guatemala and Children’s Hospital Colorado | MOU signed 04/01/2018 through 04/01/2023 | General MOU Framework for Research and Education

Guatemala City- Universidad Francisco Marroquin and Children’s Hospital Colorado | MOU signed 08/01/2017 through 08/01/2022 | To include General MOU Framework in Research in Global Health (Educational and Training Programs) and Addendum (Dental Licensure)

Guatemala City- Universidad Rafael Landivar | MOU signed 05/05/2018 through 05/05/2023 | General MOU Framework in Research in Global and Population Health (Educational and Training Programs)

PERU

Lima- Universidad Peruana Cayetano Heredia and Children’s Hospital Colorado | MOU signed 10/03/2018 through 10/03/2023 | General MOU Framework in Research and Programs in Maternal Health and Disasters Preparedness

ETHIOPIA

Tepi- Mizan Tepi University Teaching Hospital, Villiage Health Partnership | MOU signed 06/06/2019 through 06/06/2024 | Research on pregnancy and childbirth outcomes

INDIA

Amaravati- Meditation, De-addiction, Health, AIDS, Nurtition Trust | MOU signed 02/01/2018 through 02/01/2023 | General MOU Framework in Research for Manuscript Publication and Presentation

Vellore- Christian Medical College Hospital Vellore India and International Asthma Services | MOU signed 02/23/2021 through 02/23/2026 | General MOU Framework in Research in Family and Maternal-Child Health, Student Transfer Program, and Summer Language and Culture Study Program

THAILAND

Salaya- Mahidol University | MOU signed 01/15/2021 through 01/15/2026 | General MOU Framework in Visits and Informal exchanges of Faculty, Scholars, and Administrators in specific areas of education, research, and outreach

INDONESIA

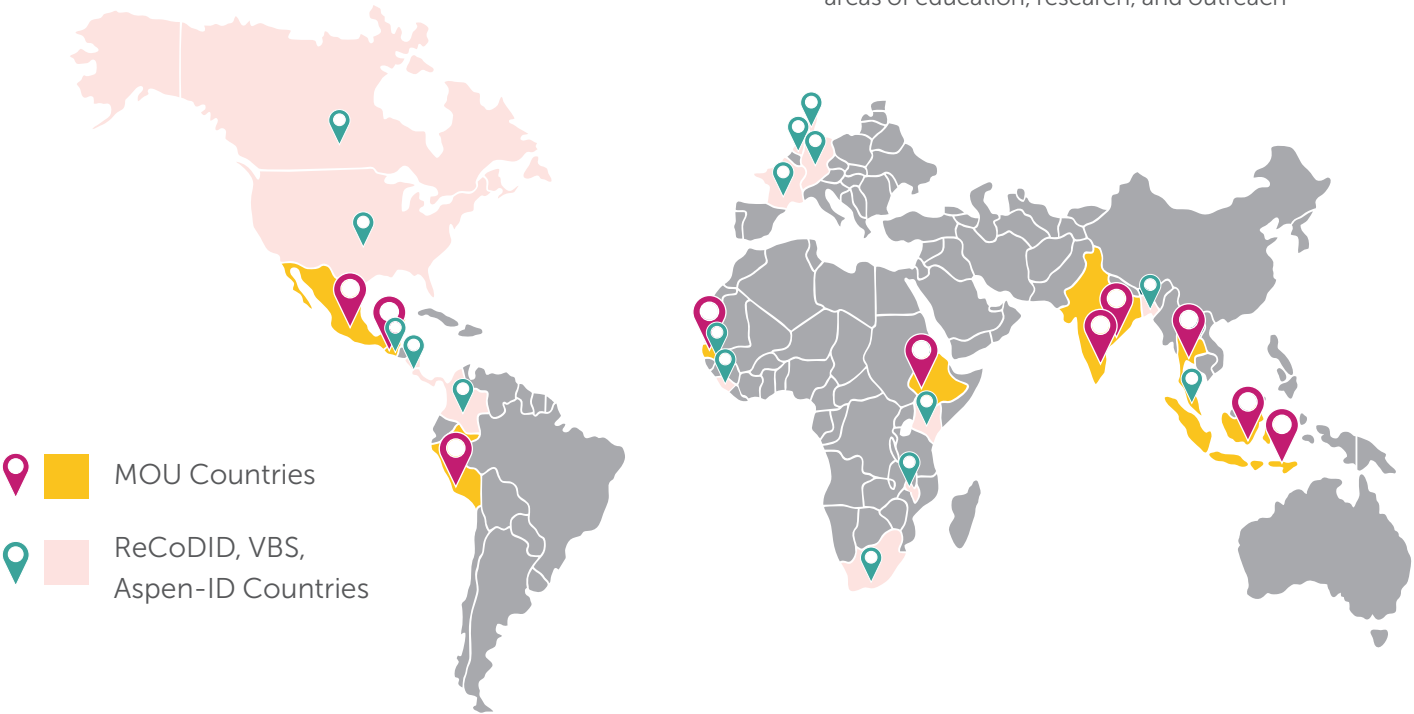
Banjarmasin and Banjarbaru- Lambung Mangkurat University | MOU signed 04/25/2019 through 04/25/2024 General MOU Framework in Faculty and Scholar Exchange
Ambon, Maluka- Pattimura University MOU signed 04/20/2019 through 04/20/2024 | General MOU Framework in Faculty and Scholar Exchange





Banda Aceh- Syiah Kuala University | MOU signed 04/25/2019 through 04/25/2024 | General MOU Framework in Faculty and Scholar Exchange


West Nusa Tenggara- University of Mataram | MOU signed 04/25/2019 through 04/25/2024 | General MOU Framework in Faculty and Scholar Exchange

SENEGAL

Dakar- Albert Royer National Children’s Hospital and Children’s Hospital Colorado | MOU signed 2023-2025 General | MOU Framework in Partnership to support the CHNEAR in improving care of sick children and adolescents in Ophthalmology



  MOU Countries
  ReCoDID, VBS, Aspen-ID Countries



ReCoDID: Germany, the Netherlands, France, Denmark, Canada, USA, Colombia, Nicaragua, Senegal

VBS: Tahiti, Malaysia, Bangladesh, Kenya, Sierra Leone, Colombia, and Guatemala.

ASPEN-ID: Kenya, Malawi, Sierra Leone, and South Africa

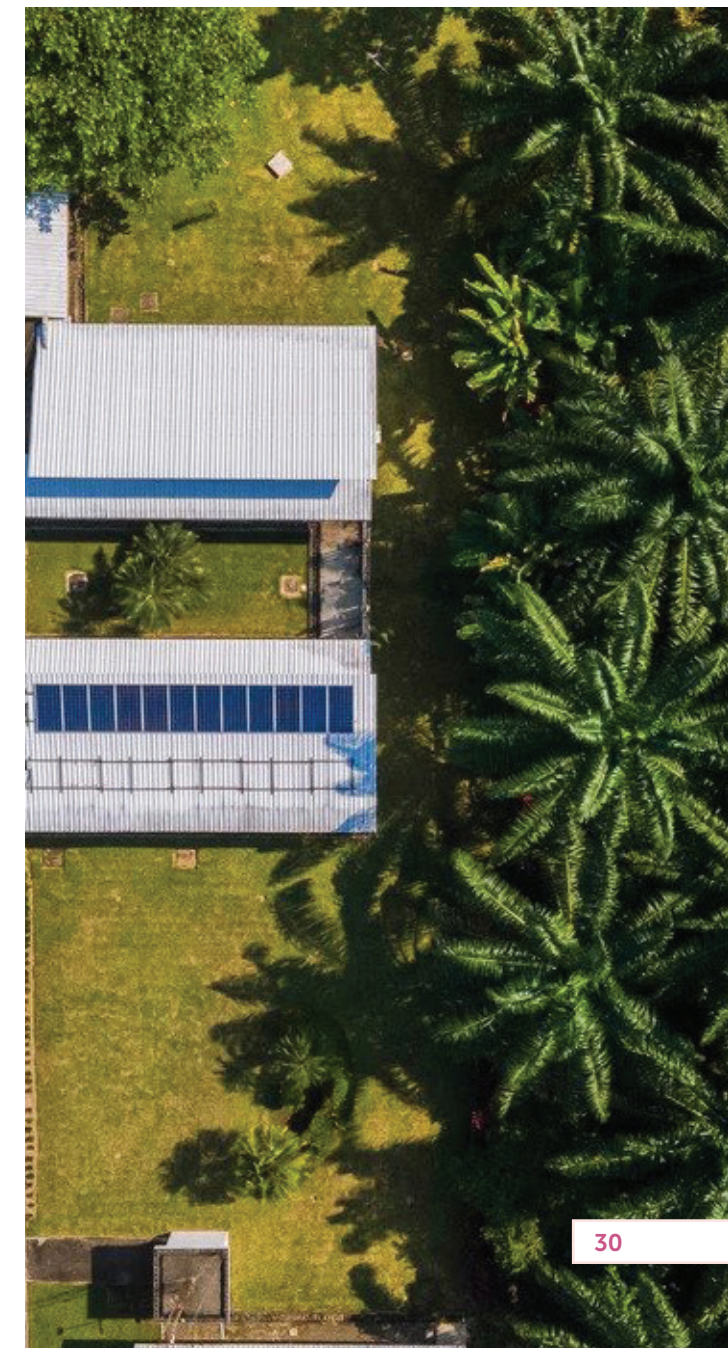


Travel Support – Deployment for FSIG

The CGH acts as a liaison to facilitate, conduct, and guide residents, students, and other professionals from the School of Medicine, School of Dental, School of Pharmacy, College of Nursing, other Allied Health Schools, and Children’s Colorado to have an international experience. As part of this process, CGH takes measures to ensure smooth and incident free travel to Guatemala. The Center will be involved and support travel arrangements for all travelers going to Trifinio. Making sure travelers are prepared with important documentation, updated vaccinations, water and food guidelines, communication plan, familiarity of culture, medical/health, and other factors from pre-departure to post travel.

We appreciate the service and guidance provided by the Office of International Affairs (Vice Chancellor, University of Colorado-Denver), FSIG (Fundacion Integral para la Salud de los Guatemaltecos), and the International SOS to make sure we have a comprehensive plan. Every year, we create an Emergency Action Plan specifically designed for Trifinio, Guatemala where travelers stay. In addition to this step, we also submit a yearly travel appeal on behalf of everyone traveling. This incorporates common health, security, and general risks associated with their stay and travel in Guatemala, which is assessed and approved by International SOS. This process allows for a convenient and faster process of approval and planning of trips to Guatemala.

Photos by Luis Escheverria/NPR



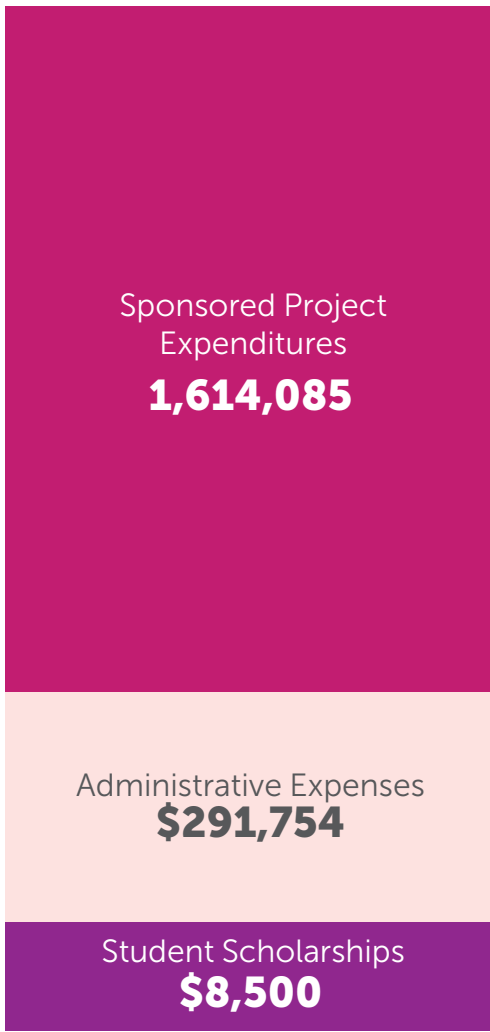
Revenue and Expenses

FINANCIALS

Revenue | FY 2022-2023
\$2,000,395



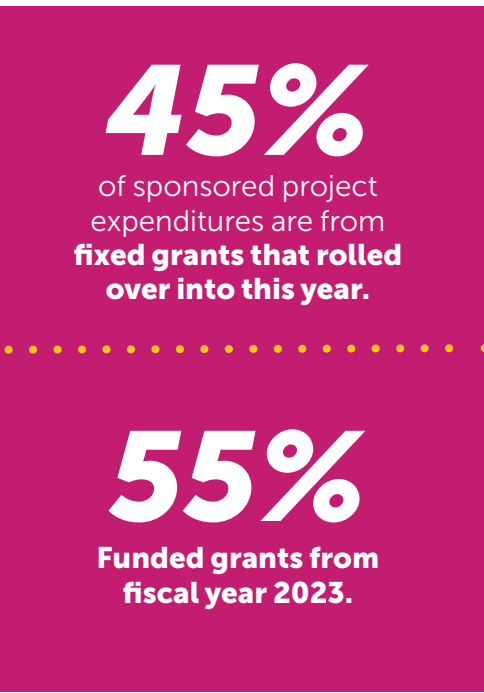
Expenses | FY 2022-2023
\$1,914,339



How Sponsor
Project Expenditures
are broken down.



Sponsored Project
Expenditures
1,614,085



- * Grant and Contract revenue is based on FY23 OGC and CGH billing amounts
- * CGH received 100% of revenue and spent 82% for FY23
- * 55% of sponsored project revenue was spent towards FY23 CGH grants
- * 45% of sponsored project revenue was spend towards previous rolling basis grants
- * 18% remaining of FY23 sponsored project revenue has yet to be spent

STAFF MEMBERS

Executive Committee Members

Adams, Jimi, PhD, MA, Associate Professor of Health and Behavioral Science and Director, Undergraduate Program in Public Health, University of Colorado, Denver Campus

Bradley, Cathy, PhD, MPA, Dean of the University Colorado School of Public Health, Anschutz Medical Campus

Calvello-Hynes, Emilie, MD, MPH, Associate Professor of Emergency Medicine, Lead of Global Emergency Care Initiative, School of Medicine, University of Colorado Anschutz Medical Campus

Campbell, Thomas, MD, Professor of Infectious Diseases, Associate Dean, School of Medicine, Departments of Internal Medicine, Division of Infectious Disease and Microbiology at the School of Medicine, University of Colorado Anschutz Medical Campus

Chopra, Vineet, MD, Professor and Robert W. Schrier Chair of Medicine, Department of Medicine, School of Medicine, University of Colorado Anschutz Medical Campus

Daniels, Stephen, MD, PhD, Professor and Chair, Department of Pediatrics at the University of Colorado School of Medicine, Anschutz Medical Campus and Pediatrician in-Chief L Joseph Butterfield Chair in Pediatrics at Children’s Hospital Colorado

Gifford, Blair, PhD, Professor of International Health Management in the Business School, University of Colorado Denver and the Colorado School of Public Health, University of Colorado Anschutz Medical Campus

Hausmann, Jena, MHA, President and Chief Executive Officer, Children’s Hospital Colorado

Holguin, Fernando, MD, Director, Asthma Program at the Center for Lungs and Breathing and Executive Director, Latino Research and Policy Center at the Colorado School of Public Health, University of Colorado Anschutz Medical Campus

Jones, Alana, Associate Vice Chancellor, Office of International Affairs, University of Colorado Denver and Anschutz Medical Campus



Use the QR Code to see a full list of CGH staff and faculty members.

Saseen, Joseph, PharmD, Associate Dean for Clinical Affairs and Professor at the University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Anschutz Medical Campus

Mould-Millman, Nee-Kofi, MD, Associate Professor of Emergency Medicine, School of Medicine, University of Colorado Anschutz Medical Campus

Muramoto, Myra, MD, MPH, FAAFP, Woodward-Chisholm Visiting Professor and Chair, Department of Medicine, University of Colorado Anschutz Medical Campus

Newman, Lee, MD, MA, FCCP, FACOEM, Distinguished Professor of Environmental and Occupational Health and Epidemiology, Director of the Center for Health, Work, and Environment, Colorado Anschutz Medical Campus

Prag, Pam, CNM, MS, MPH, Certified Nurse Midwife, College of Nursing, Global Health Program Director, University of Colorado Anschutz Medical Campus

Reilly, John, MD, Dean of the University of Colorado School of Medicine and the University’s Vice Chancellor for Health Affairs, Richard D. Krugman Endowed Chair, Anschutz Medical Campus

Simoes, Eric, MBBS, DCH, MD, Professor of Pediatrics, Section of Pediatric Infectious Disease, School of Medicine and Professor of Epidemiology at the Colorado School of Public Health, University of Colorado Anschutz Medical Campus

Wynia, Matthew, MD, MPH, FACP, Director, Center for Bioethics and Humanities, University of Colorado, Anschutz Medical Campus

Zaslow, Zach, Vice President, Advocacy and Community Health, Children’s Hospital Colorado



SUPPORTERS, PARTNERS, PUBLICATIONS

SUPPORTERS

- Chancellor for the University of Colorado Anschutz Medical Campus
- University of Colorado Office of the Provost
- Academic and Student Affairs
- Colorado School of Public Health
- School of Medicine
- Skaggs School of Pharmacy and Pharmaceutical Sciences
- College of Nursing
- School of Dental Medicine
- Children’s Hospital Colorado
- Southwest Rotary Club
- Denver Rotary Club
- Evergreen Rotary
- Denver Stapleton Rotary
- Aurora Fitzsimons Rotary Club
- Global Chest Initiative Group
- Peter Durst
- Dr. Calvin Wilson

PARTNERS

- Department of Pediatrics
- School of Medicine
- College of Nursing
- World Health Organization (WHO)
- Pan American Health Organization (PAHO)
- Center for Health, Work & Environmental at the Colorado School of Public Health
- Colorado State University
- Denver Health
- National Jewish Health
- Colorado School of Public Health

PUBLICATIONS - JULY22'-JUNE 23'

- The Center for Global Health Faculty members have made major contributions to the fields as evidenced by an impressive list of **147 publications and 30 presentations** completed between July 2022 – June 2023. The publications and presentations are listed below.
- Adolescent, School, and Mental Health (12)
- Arboviruses (18)
- Childhood Development (19)
- COVID-19 (28)
- Emergency Medicine (11)
- Epidemiology (2)
- E-Health (5)
- Global Health Education (4)
- HIV (10)
- Influenza (2)
- Maternal & Reproductive Health (10)
- Neonatal Care (4)
- Oncology (7)
- RSV (10)
- Vaccine Research & Policy (5)



Use the QR code to find the full list of publications or click [here](#)

THANK YOU



IF EVERYONE IS MOVING FORWARD TOGETHER, THEN SUCCESS TAKES CARE OF ITSELF.

- HENRY FORD