CONTENTS

ACKNOWLEDGEMENT ............................................................................................................................... 2
WELCOME LETTER ..................................................................................................................................... 3
ORIENTATION SCHEDULE ....................................................................................................................... 4
PROGRAM SCHEDULE ............................................................................................................................. 5
PARTICIPANTS ........................................................................................................................................... 10
MENTORS ................................................................................................................................................. 19
PROGRAM FUNDERS ................................................................................................................................. 27
COMMON LANGUAGE AND DEFINITIONS .................................................................................................. 30
PROGRAM REQUIREMENTS ..................................................................................................................... 32
SEMINAR SERIES ..................................................................................................................................... 11
IDENTIFICATION BADGES ..................................................................................................................... 33
WASHINGTON UNIVERSITY POLICIES & SAFETY .............................................................................. 33
EVALUATION .............................................................................................................................................. 34
TRACKING TIME ON WORKDAY ............................................................................................................. 35
GUIDELINES FOR ACADEMIC & NON-ACADEMIC TRANSGRESSIONS ........................................ 37

Students gather at the belowground outdoor space on the Danforth Campus, Washington University in St. Louis
ACKNOWLEDGEMENT

The Institute for Public Health (IPH) Summer Research Program Handbook is adapted from the Advanced Summer Program for Investigation and Research Education (ASPIRE) Handbook developed by the Clinical Research Training Center and from the Student Handbook for Global Engagement, University of Michigan Center for Global Health (2012).

The Summer Research Program is supported by the Institute for Public Health; Global Health Center; Children's Discovery Institute; National Heart, Lung and Blood Institute; University College Dublin; and the following donors: Cynthia and Rich Schilsky, Mason Family Foundation, Cora Faith Walker Health Equity Scholarship Fund, Amelia Jane Brown Johnson Memorial, Mark and Janice Gold, and Mark and Cathleen Reifsteck.

We want to acknowledge the support of the following people: William Powderly, Victor Davilá-Román, Mark Huffman, Leah Kemper, Guhan Iyer, Jada Meads, Jeanie Bryant, Anna Mazzuca, Tanya Madden, Emily Hickner and Kim Furlow for their tremendous hard work on coordinating this program!

The Institute for Public Health is located at the School of Medicine Campus, Washington University in St. Louis
WELCOME LETTER

On behalf of the Institute for Public Health, Children's Discovery Institute and the Department of Pediatrics at Washington University in St. Louis, we are thrilled to welcome you to the 2023 Institute for Public Health Summer Research Program – Public and Global Health Track and RADIANCE Track.

In conceiving this program, we wanted to provide rich experiences and mentorship in public and global health research to individuals relatively early in their careers. To help in this critically important area, we also wanted to offer support to the increasing number of researchers and field participants, both in the United States and globally.

Our goal is not only to provide you with meaningful opportunities to expand your knowledge and understanding of public and global health and the broad scope of heart and blood disorders, but to also offer guidance in career planning and development, and to help you build peer and mentor relationships that will enrich your lives beyond this summer program.

We look forward to your enthusiastic participation and feedback. Thank you so much for joining us.

Sincerely,

William G. Powderly, MD
J. William Campbell Professor of Medicine
Larry J. Shapiro Director, Institute for Public Health
Director, Institute of Clinical and Translational Sciences

Carol Kao, MD
Assistant Professor, Pediatrics, Division of Pediatric Infectious Diseases
RADIANCE Advisory Committee
## RADIANCE and Public/Global Health Summer Research Program
### ORIENTATION AGENDA

**Monday, June 5, 2023 – Doll & Hill Room, Taylor Avenue Building**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45-9:00 am</td>
<td>Coffee &amp; Check-in</td>
</tr>
<tr>
<td>9:00-9:15 am</td>
<td>Welcome Session</td>
</tr>
<tr>
<td></td>
<td>- Leah Kemper, MPH – Associate Director, Institute for Public Health</td>
</tr>
<tr>
<td></td>
<td>- Carol Kao, MD – Assistant Professor, Department of Pediatrics, School of Medicine</td>
</tr>
<tr>
<td></td>
<td>- Guhan Iyer, MPH – Clinical Research Coordinator, Department of Cardiology, School of Medicine</td>
</tr>
<tr>
<td></td>
<td>- Jada Meads, BSPH, MPH Student – Research Program Coordinator, Global Health Center</td>
</tr>
<tr>
<td></td>
<td>- Jeanie Bryant, BS.Ed, BS.Ag – Program Coordinator, Global Health Center</td>
</tr>
<tr>
<td>9:15-9:45 am</td>
<td>Student Introductions (mentors invited as well)</td>
</tr>
<tr>
<td>9:45-10:00 am</td>
<td>Break</td>
</tr>
<tr>
<td>10:00-10:50 am</td>
<td>Program Overview</td>
</tr>
<tr>
<td></td>
<td>Guhan Iyer, MPH, and Victor Dávila-Román, MD</td>
</tr>
<tr>
<td>11:00-11:30 am</td>
<td>Keynote Presentation</td>
</tr>
<tr>
<td></td>
<td>William Powderly, MD</td>
</tr>
<tr>
<td></td>
<td>Larry J. Shapiro Director, Institute for Public Health; Dr. J. William Campbell Professor of Medicine; Associate Dean for Clinical and Translational Research; Director, Institute of Clinical and Translational Sciences; and Co-Director, Division of Infectious Diseases in the Department of Medicine, Washington University in St. Louis, MO</td>
</tr>
<tr>
<td>11:30-11:55 am</td>
<td>Student Discussion / Q&amp;A</td>
</tr>
<tr>
<td>11:55 am-12:00 pm</td>
<td>Orientation Wrap Up</td>
</tr>
<tr>
<td>12:00-1:30 pm</td>
<td>Lunch with Mentors &amp; Program Coordinators + Evaluations</td>
</tr>
<tr>
<td>1:30 – 4:00 pm</td>
<td>Lab orientation with mentors (independent)</td>
</tr>
</tbody>
</table>
# PROGRAM SCHEDULE

Tuesday, June 6 – Friday, July 28, 2023

- Boxes in light green indicate that the seminar/activity is **required**.
- Rows highlighted in yellow indicate the period in which individual meetings will be held with students, or when assignments are due.
- Rows not highlighted are not required events.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday, June 6</strong></td>
<td>9:00 am-4:00 pm</td>
<td><strong>Full Day in Lab Orientation with Individual Mentors</strong>&lt;br&gt;Please check with your mentor to confirm exact times &amp; locations to report.</td>
</tr>
<tr>
<td><strong>Wednesday, June 7</strong>&lt;br&gt;IN-PERSON SESSION at Doll &amp; Hill Room – Taylor Avenue Building</td>
<td>8:30-9:00 am</td>
<td><strong>Coffee &amp; Check-in</strong></td>
</tr>
<tr>
<td></td>
<td>9:00-10:00 am</td>
<td><strong>Bootcamp Session #1</strong></td>
</tr>
<tr>
<td></td>
<td>10:00-11:00 am</td>
<td><strong>Public &amp; Global Health Overview</strong>&lt;br&gt;Mark Huffman, MD, MPH – Co-Director, Global Health Center, Institute for Public Health; Professor of Medicine, Cardiovascular Division, School of Medicine, Washington University in St. Louis&lt;br&gt;&lt;br&gt;<strong>Cardiovascular Disease Overview</strong>&lt;br&gt;Victor Dávila-Román, MD – Director, Global Health Center, Institute for Public Health; Professor of Medicine, Anesthesiology and Radiology, School of Medicine, Washington University in St. Louis</td>
</tr>
<tr>
<td></td>
<td>11:00-11:50 pm</td>
<td><strong>Clinical Trials Overview</strong>&lt;br&gt;Anubha Agarwal, MD, MSc – Co-Director, Program in Global Cardiovascular Health; Assistant Professor of Medicine, Cardiovascular Division, Washington University School of Medicine</td>
</tr>
<tr>
<td></td>
<td>12:05-1:00 pm</td>
<td><strong>Bootcamp Session #2</strong></td>
</tr>
<tr>
<td><strong>Thursday, June 8</strong></td>
<td>9:00 am-4:00 pm</td>
<td><strong>Full Day in Lab Orientation with Individual Mentors</strong>&lt;br&gt;Please check with your mentor to confirm exact times &amp; locations to report.</td>
</tr>
<tr>
<td>Day</td>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Friday, June 9</td>
<td>9:00-9:30 am</td>
<td>Coffee &amp; Check-in</td>
</tr>
<tr>
<td></td>
<td>9:30-11:00 am</td>
<td>Planning and Preparing for Careers in Public &amp; Global Health-Related Fields - Workshop</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Sara Malone, MSW, PhD: Instructor of Surgery, School of Medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Lindsay Underhill, MPH, PhD: Instructor in Medicine, School of Medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Angela Hobson, PhD: Assistant Dean for Public Health, Brown School</td>
</tr>
<tr>
<td></td>
<td>11:00-11:30 am</td>
<td>Student Discussion/Q&amp;A</td>
</tr>
<tr>
<td></td>
<td>11:30 am-12:30 pm</td>
<td>Lunch Break</td>
</tr>
<tr>
<td></td>
<td>12:30-1:10 pm</td>
<td>Bootcamp Session #4</td>
</tr>
<tr>
<td></td>
<td>1:10-2:10 pm</td>
<td>Introduction to Biostatistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ken Schechtman, PhD, MS, MA: Professor, Department of Biostatistics, School of Medicine, Washington University in St. Louis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Research – General Overview</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joe Steensma, EdD, MPH, MA: Professor of Practice, Public Health &amp; Social Work, Brown School, Washington University in St. Louis</td>
</tr>
<tr>
<td></td>
<td>3:00-7:00 pm</td>
<td>Social Event – Saint Louis Zoo</td>
</tr>
<tr>
<td>Monday, June 12</td>
<td>12:00 – 1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scientific Methods and Basics of Data Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adam Wilcox, PhD: Director, Center for Applied Clinical Informatics, Institute for Informatics; Professor of Medicine, Washington University in St. Louis</td>
</tr>
<tr>
<td>Wednesday, June 14</td>
<td>12:00-1:15 pm</td>
<td>Skills Workshop over Lunch:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional Written Communication and How to Communicate Your Work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steve Pijut, MA: Associate Director, The Writing Center, Washington University in St. Louis</td>
</tr>
<tr>
<td></td>
<td>1:15-1:45 pm</td>
<td>Making Blog Posts Work for You</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kim Furlow, BA: Communications Manager, Institute for Public Health, Washington University in St. Louis</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Monday, June 19</strong></td>
<td>9:00-9:30 am</td>
<td><strong>Skills Workshop:</strong></td>
</tr>
<tr>
<td></td>
<td>9:30-9:40 am</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9:40-10:10 am</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10:10-10:40 am</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, June 21</strong></td>
<td>12:00-1:00 pm</td>
<td><strong>Lunch Presentation:</strong></td>
</tr>
<tr>
<td>**Monday, June 26 &amp;</td>
<td>9:30-11:30 am</td>
<td><strong>Mid-Program Presentations on Research Projects</strong></td>
</tr>
<tr>
<td><strong>Tuesday, June 27</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, June 28</strong></td>
<td>12:00-1:00 pm</td>
<td><strong>Lunch Presentation:</strong></td>
</tr>
<tr>
<td><strong>Friday, June 30</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tuesday, July 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, July 5</strong></td>
<td>12:00-1:00 pm</td>
<td><strong>Lunch Presentation:</strong></td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Event Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Friday, July 7</td>
<td></td>
<td>Preliminary Research Abstract due on Research Work to Date</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Must be approved by mentor</em></td>
</tr>
<tr>
<td>Monday, July 10</td>
<td>12:00-1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifying and Modifying Risk Exposure to Minimize Disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lisa de las Fuentes, MD, MS – Co-Director, Cardiovascular Imaging and Clinical Research Core Laboratory; Professor of Medicine, Cardiovascular Division and Division of Biostatistics, Washington University in St. Louis</td>
</tr>
<tr>
<td>Wednesday, July 12</td>
<td>12:00-1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Race, Ethnicity, and Health Disparities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Angela Brown, MD – Co-Director, Center for Community Health Partnership and Research, Institute for Public Health; Professor of Medicine, Cardiovascular Division in the Department of Medicine, Washington University in St. Louis</td>
</tr>
<tr>
<td>Tuesday, July 18</td>
<td>12:00-1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health Policy &amp; Economics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Karen Joynt Maddox, MD, MPH – Co-Director, Center for Advancing Health Services, Policy &amp; Economics Research, Institute for Public Health; Associate Professor, School of Medicine, Washington University in St. Louis</td>
</tr>
<tr>
<td>Wednesday, July 19</td>
<td>12:00-1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cynthia Williams, MSW, LCSW, ACSW – Assistant Dean, Office of Community Partnerships, Brown School, Washington University in St. Louis</td>
</tr>
<tr>
<td>Friday, July 21</td>
<td></td>
<td>Final Research Abstract &amp; Keywords Due</td>
</tr>
<tr>
<td>Monday, July 24 &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday, July 25</td>
<td>9:00 – 10:00 am</td>
<td>Symposium Presentation Run-throughs &amp; Final Check-in with Program Committee</td>
</tr>
<tr>
<td>Wednesday, July 26</td>
<td>12:00-1:00 pm</td>
<td>Lunch Presentation:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hemophilia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mehul Thakkar, MD – Fellow, Division of Hematology and Oncology, Department of Pediatrics, Washington University in St. Louis</td>
</tr>
<tr>
<td>Thursday, July 27</td>
<td>Day One of Summer Research Program Symposium</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>IN-PERSON SESSION – Doll &amp; Hill Conference Room, Taylor Avenue Building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:45-9:00 am</td>
<td>Coffee &amp; Check-in</td>
<td></td>
</tr>
<tr>
<td>9:00-9:30 am</td>
<td>Welcome Session</td>
<td></td>
</tr>
<tr>
<td>9:30-9:45 am</td>
<td>Dominic Reeds – Medical Director, Nutrition Support Service, Barnes Jewish Hospital; Associate Dean for Research, Goldfarb School of Nursing; Professor of Medicine, Washington University School of Medicine</td>
<td></td>
</tr>
<tr>
<td>9:45-11:45 am</td>
<td>Student Discussion/Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>11:45-12:30 pm</td>
<td>Student presentations (6 min followed by 4 min discussions)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Friday, July 28</th>
<th>Day Two of Summer Research Program Symposium</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN-PERSON SESSION – Doll &amp; Hill Conference Room, Taylor Avenue Building</td>
<td></td>
</tr>
<tr>
<td>8:45-9:00 am</td>
<td>Coffee + Check-in</td>
</tr>
<tr>
<td>9:00-9:30 am</td>
<td>Welcome Session</td>
</tr>
<tr>
<td>9:30-9:45 am</td>
<td>Student Discussion/Q&amp;A</td>
</tr>
<tr>
<td>9:45-11:45 am</td>
<td>Student Presentations (6 min followed by 4 min discussions)</td>
</tr>
<tr>
<td>11:45-1:00 pm</td>
<td>Session Close and Closing Remarks + Evaluation (bring laptop)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Friday, July 28</th>
<th>Dinner with Summer Program Students &amp; Program Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location TBD</td>
<td>5:00-7:00 pm</td>
</tr>
</tbody>
</table>
Introducing the 2023 Summer Research Program Cohort—
Public and Global Health Track

Meti Abdella (she/her)
Schilsky Family Summer Research Scholar

Originally from Ethiopia, I am a rising senior in Biology at Bethany College, West Virginia and hope to pursue a Master of Science in global health studies with a focus on maternal and infant health. My interest in health care, involvement in humanitarian services, and passion for travel and understanding of different cultures, has propelled me towards this path. I am passionate about advocating globally for disadvantaged groups. I look forward to working with Ozge Sensoy Bahar, PhD, to evaluate the sexual risk taking behaviors of vulnerable women in Uganda and to learn more about intervention research.

Maeve Fahy, BCL (she/her)
Mark and Cathleen Reifsteck Summer Research Scholar

I am a first-year, graduate-entry medical student at University College Dublin in Ireland, where I also earned a bachelor’s in Civil Law. I am honored to participate in the Institute for Public Health Summer Research Program as I have a strong interest in health education and promotion, health equity and accessibility. Working with children and adults from disadvantaged backgrounds has for me, illuminated health care inequality, something I wish to change as a physician. I am delighted to work with Hillary Reno, MD to assess the needs of St. Louis patients seeking sexual health care. I look forward to gaining research experience and connecting with like-minded students.

Olivia Kim (she/her)
Little Medical School Scholar

I am a rising senior at Washington University in St. Louis majoring in Anthropology: Global Health and Environment with minors in biology and economics. I also completed my spring semester at the University of Amsterdam studying medical anthropology and human geography, and I hope to pursue a career in public health and medicine. This summer, I am excited to work with Kelly Harris, PhD, on her project investigating pediatric asthma related to St. Louis industrial pollution. I look forward to gaining research experience that examines health disparities and environmental racism.
Justin O’Hagan (he/him)

University College Dublin Scholar

I am a third-year undergraduate medical student at University College Dublin, in Ireland with a strong passion for public health, infectious diseases, statistics, and the integration of technology in health care. This summer, I am thrilled to work under the mentorship of Sara Malone, PhD on an impactful project evaluating the long-term effectiveness of an early warning score system in global oncology care. My experience working at a COVID-19 vaccination center has reinforced my commitment to address underlying causes of illness and to advocate for preventative measures. My ultimate goal is to improve health care services worldwide by leveraging technology and evidence-based public health strategies.

Celeste Sangster (she/her)

Cora Faith Walker Scholar

A rising junior at the University of North Carolina at Chapel Hill, double majoring in medical anthropology and public policy, I study the history of U.S. maternal health policy and its 50-year impact on the quality of care and birth outcomes. I also research traditional global birthing practices and how the U.S. can incorporate them. I plan to earn a graduate degree in public health, public policy, or law and pursue a career in high-level policy making in maternal health. I am thrilled to collaborate with Abigail Barker, PhD, and Timothy McBride, PhD on a project on evidence-based strategies for improving maternal and infant health. I look forward to advancing my research skills while gaining valuable connections.

William (Will) Sayre (he/him)

SPRIGHT Scholar

A first-year medical student at USF Health Morsani College of Medicine, I am thrilled to work this summer with Lori Holtz, MD and Stephanie Fritz, MD to study the impact of a newborn’s surroundings on the microbiome. I received my undergraduate degree from Rice University in Houston, Texas, and my prior research and clinical experiences have often revolved around public health and pediatric wellness. I look forward to developing my skills as a future health care professional while also learning about St. Louis culture, different communities, and the unique public health challenges this city faces.
Caitlin Shin (she/her)

SPRIGHT Scholar

I am a first-year medical student at the California University of Science of Medicine in Colton and earned a BS and an MA in global health from UC, San Diego. I have served as a Planetary Health Ambassador for the UC Global Health Institute, a student representative for the UC San Diego global health department, and, I worked with partner institutions at Uganda’s Mbarara University of Science & Technology, and Rwanda’s University of Global Health Equity. My primary interests involve expanding graduate health education in LMICs and creating maternal health educational materials internationally. This summer, I am thrilled to collaborate with Michelle Silver, PhD, to study implementing HPV vaccinations in adolescents in Zambia.

Bijay Shrestha, MD (he/him)

Amelia Jane Brown Johnson Memorial Award Scholar

A medical graduate from Nepal, I am pursuing masters in public health at Southern Illinois University Edwardsville, Illinois. I am a medical doctor interested in public health and preventative medicine, and a research enthusiast with a deep interest in the field of epidemiology of diseases. This summer, I am privileged to work with mentor Amy McQueen, PhD on the project, “Examining the Influence of Social Needs on Health-related Outcomes among Adult Medicaid Members with Type 2 Diabetes.” I look forward to gaining the in-depth knowledge and skills required to be an independent medical researcher and to helping heal communities affected by urgent public health issues.

Alexandria (Alex) Swanson (she/her)

Gold Family Summer Research Scholar

Originating from Kansas City, Kansas, I am a rising junior in the Interdisciplinary Honors College at Loyola University Chicago. Majoring in public health with minors in biostatistics and biology, I have learned first-hand about Chicago public health and the complex system of social determinants that make up the city. This summer, I am excited to broaden my horizons at the Institute for Public Health Summer Research Program - Public and Global Health Track, working with Christina Stallings, PhD in her Mycobacterium Lab, studying the complexities of resistant strains of Tuberculosis.
Natasha Zimmerman (she/her)  

Mark and Cathleen Reifsteck Summer Research Scholar  

I am a rising senior at Washington University in St. Louis, and double major in chemistry and anthropology on the global health and environment track. I also work with WashU’s Prevention Research Center, the Emergency Support Team (WashU’s student-run EMS service), and Ghost Lights a cappella group. I hope to pursue a career in public health, and have particular interests in social determinants of health and environmental health. This summer, I am excited to collaborate with Professor Kia Davis, ScD, MPH on the project, “Developing a Safety Net Innovation Advisory Board to inform Structural Changes in Healthcare to Reduce Health Disparities.”
Introducing the 2023 Summer Research Program Cohort—
RADIANCE Track

**Emmanuella Alawode** (she/her)

Originally from Dallas, Texas, I am a BA/MD student at the University of Missouri - Kansas City School of Medicine with interests in cardiac surgery, the role of nutrition in cardiovascular health, and cardiovascular women’s health. Under the mentorship of Sharon Cresci, MD, I am excited to participate in the RADIANCE track of the Institute for Public Health Summer Research Program on a project studying hypertrophic cardiomyopathy, a common cause of sudden death among young athletes. In my free time, I enjoy reading memoirs, spending time with family and friends, cooking, and writing.

**Yao Xin Deng Lin** (he/him)

I am from Carolina, Puerto Rico. I am a first year medical student in Ponce Health and Science University and I am deeply grateful and honored to work with the RADIANCE Program where I can further my knowledge in the specialty of Cardiology and meet mentors that can guide me in the journey of my medical career.

**Haytham El-Zaim** (he/him)

I am originally from Houston, Texas, but am currently in my third year at the University of Texas, Austin pursuing a Bachelor of Science and Arts in neuroscience with a minor in applied economics. I plan to attend medical school and hope to obtain a masters in health administration or public health. This summer, I’ll work alongside Melanie Fields, MD to study pediatric sickle cell anemia using imaging techniques and cognitive testing. During my free time, I enjoy playing tennis, running, and other outdoor activities.
Joaquin Figueroa (he/him)

I’m from Chicago, Illinois, and I am going to be going into my sophomore year at WashU next semester. I’m interested in majoring in engineering, but have not decided on which type yet. I will be working with Dr. John DiPersio, the director for the Center for Gene and Cellular Immunotherapy. I’m excited to meet and work with everyone this summer.

Serena Florez Marques (she/her)

An undergraduate at University of Puerto Rico at Rio Piedras, I have participated in a research project at Central Caribbean University School of Medicine and in the Intel International Science and Engineering Fair; experiences that helped me value how different disciplines overlap with science. Because of my current work with the Inflammatory Bowel Disease GI research unit at UPR School of Medicine, I have a profound interest in clinical research and the needs of patients with chronic diseases. During the pandemic, I worked with the University Carlos Albizu and the National Institute of Standards and Technology, interviewing people in hurricane-affected communities. All of these experiences have made me realize the need to deepen my understanding of public health.

Amaris Hairston (she/her)

I am a rising second year University of Missouri medical student and earned my Bachelor of Science in Cell and Molecular Biology from Missouri State University. My interests include dermatology, women’s health, primary care and helping disadvantaged populations. I am elated to be a part of the Summer Research Program because I will gain a greater understanding of public health, which will aid in future medical endeavors to improve communities. I am excited to gain clinical exposure by working alongside Mark Huffman, MD and Angela Brown, MD to investigate the factors affecting the implementation of a heart failure polypill.

Ashley Lugo Huerta (she/her)

I am currently a rising sophomore majoring in biomedical engineering at Washington University in St. Louis. This summer, through the RADIANCE track, I am excited to connect with Laura Schuettpelz, MD, PhD to study the effects of inflammatory signaling on hematopoietic stem cells. I am honored to have this opportunity as it will help expose me to the field of hematology and oncology. I look forward to connecting with peers that share interest in this field.
Evelyn Lukanen (she/her)

A rising junior majoring in Intercultural Studies at Biola University in La Mirada, California, and minoring in biological science and biblical and theological studies, I am thrilled to join the RADIANCE track of the Summer Research Program, where I can incorporate intercultural studies and biology to research how racial disparities impact community health. My concentrations are in cross-cultural health care and cultural anthropology and I hope to pursue a master’s in public health focusing on epidemiology. This summer, I’m excited to work with Allison King, MD, MPH, PhD in her research and I look forward to connecting with bright students in our cohort and with mentors in cardiology and hematology.

Joshua (Josh) Nelson (he/him)

I am an incoming junior majoring in biomedical sciences at Southeast Missouri State University. I was the first high school summer intern in the rare disease unit at Pfizer, and a project leader in the rare disease medical affairs unit. I started a scholarship foundation called the Joshua Nelson Leaders in Action Scholarship, which helps students who embody leadership. This summer, I will conduct research on obesity cardiomyopathy under the mentorship of Abinav Diwan, MD and Xiucui Ma, MD. I look forward to gaining a deeper understanding of cardiomyopathy as well as other forms of cardiovascular disease.

Juan Suarez (he/him)

I am a first-year medical student at Ponce Health Sciences University where I earned my Masters of Science Degree in Medical Sciences. I earned a BS in Molecular Biology from the University of Puerto Rico. My current medical interests include cardiology/hematology and surgery. Through the summer program’s RADIANCE track, I hope to expand my knowledge of cardiovascular and hematologic pathologies and develop the fundamental tools necessary to progress as a clinical researcher. Under the mentorship of Kory Lavine MD, PhD, I’m excited to work in his lab on Clonal Hematopoiesis. My hobbies include running marathons and playing drums.
Kyle Tran (he/him)

Originally from San Francisco, California, I am a rising junior majoring in microbiology and minoring in East Asian Languages and Cultures at Washington University in St. Louis. I am a first-generation college student and a QuestBridge Scholar hoping to pursue an MD/PhD. I am currently a part of WashU’s Vietnamese Student Association, the Chinese Yo-yo/LNYF, and will be a Taylor Star (formerly DENEb) peer mentor. Outside of work, I like building and modifying electronics, playing bass, playing video games, and learning languages.

Michael Vega (he/him)

Originally from Chicago, Illinois, I am a second-year master’s of public health candidate at Saint Louis University and plan to combine my passions for public health, language learning, and traveling, to work with refugee and immigrant communities in Spanish- and French-speaking countries. This summer, I am excited to join the RADIANCE track, and work with mentor, Karen Joynt Maddox, MD researching the spillover effect of COVID-19 on cardiovascular care. In collaboration with the African Palliative Care Association in Uganda, I am also completing my MPH practicum with Global Partners in Care. I look forward to applying my academic public health knowledge and to collaborating with public health peers and experts.
Ozge Sensoy Bahar, PhD, MSW  
*Research Assistant Professor, Brown School*

Dr. Sensoy Bahar is interested in examining the interrelatedness of poverty, migration, and marginalization, and the consequences (such as child labor) for children and families in poverty-impacted communities. Her current research program focuses on youth experiences of child work and labor, as well as individual, family, and contextual factors leading to child labor, specifically in Turkey and Ghana. The goal of Dr. Sensoy Bahar’s work is to develop culturally and contextually-relevant interventions to reduce risk factors associated with child labor. Additionally, Dr. Sensoy Bahar serves as the lead to the SMART Africa Center that aims to advance child behavioral health services and implementation science capacity in Sub Saharan Africa.

Abigail Barker, PhD  
*Associate Director for Policy Partnerships, Center for Advancing Health Services, Policy & Economics Research; Research Assistant Professor, Brown School*

Dr. Barker creates opportunities to bridge the persistent gap she sees between policymakers and researchers. By helping researchers understand the types of questions policymakers are grappling with, they can be responsive to those needs and design impactful research. At the same time, for policymakers who want to partner with WashU to acquire evidence-based answers to specific questions, she enables the center to be a trusted resource. Her role also includes helping social science and clinical researchers add cost and cost-effectiveness analyses to their work and providing data visualization assistance to enable stakeholders to interface with policy data. In addition to her duties at our center, Dr. Barker provides economic analysis for the Rural Policy Research Institute in the area of rural health policy.
**Kia Davis, ScD, MPH**  
*Assistant Professor of Surgery, Public Health Sciences Division, School of Medicine*

Trained as a social epidemiologist, Professor Davis’s research explores how race, socioeconomic position and associated stress intersect to produce health disparities in chronic disease risk factors like obesity and sleep. For more than 10 years, she has been committed to health disparities research, which evolved from health communication research to a focus on social determinants, specifically structural drivers, of observed inequalities to inform social change. She also studies how debt might add to our understanding of racial and socioeconomic disparities.

**Kelly Harris, PhD, CCC-SLP**  
*Instructor, Occupational Therapy & Surgery, Department of Public Health Sciences, School of Medicine*

Dr. Harris’s research examines the interdependence of chronic disease, development, and educational outcomes for youth in urban and suburban contexts. She is particularly interested in the complications of asthma and sickle cell disease, and the unidentified impacts these conditions have on everyday activities for youth in community and educational contexts. Dr. Harris’ current projects examine the effects of neighborhoods and environmental factors on these relationships, the barriers and facilitators to the implementation of school-based supports, the development of implementation strategies, and the adaptation of interventions to address the needs of youth with chronic diseases.

**Lori Holtz, MD, MSPH**  
*Associate Professor, Pediatric Gastroenterology, Hepatology, and Nutrition, School of Medicine*

Dr. Holtz’s research is centered on the developing childhood gut and disorders that effect the gut including diarrhea, environmental enteropathy, and celiac disease. Her lab uses metagenomics, virology, and epidemiology to begin to define the gut virome in health and disease. The first microbial colonization of the gut is hypothesized to be a critical developmental process, which sets the stage for the infant’s future health and disease risk. The lab is interested in determining how the gut virome develops, factors that influence its development, and if perturbations in the virome are associated with disease.
Sara Malone, PhD  
_Instructor of Surgery, School of Medicine_

Dr Malone’s work focuses on evidence-based care delivery, primarily in pediatric settings. She is interested in improving the quality of care provided to children admitted to the hospital, particularly in acute and emergent settings. To do this, she uses theory and methods from implementation science and systems science to study how teams in these settings can best implement and sustain evidence-based programs and practices.

Timothy McBride, PhD, MS  
_Co-Director, Center for Advancing Health Services, Policy & Economics Research; Bernard Becker Professor, Brown School_

Dr. McBride is an influential health policy analyst and leading health economist shaping the national agenda in health insurance, health reform, rural health care, Medicare and Medicaid policy, health economics, and access to health care. He studies the effects of health reform at the state and national levels, the uninsured, diabetes policy, Medicare Advantage, and long-term entitlement reform. Dr. McBride has been active in testifying before Congress and consulting with policy constituents on health reform, health insurance issues and rural health policy. He is a member of the Rural Policy Research Institute Health Panel that provides expert advice on rural health issues to the U.S. Congress and other policymakers. Dr. McBride is a co-mentor with Abigail Barker, PhD.

Amy McQueen, PhD  
_Associate Professor of Medicine, School of Medicine_

Dr. McQueen’s research is based on the belief that scientists already know much about what will improve the health and well-being of people, but continually need new tools to effectively engage individuals in positive behavior change and create system-level changes (e.g., communities, healthcare systems) to affect population health. She is interested in conducting experimental research to better understand the effects of specific strategies for directly and indirectly influencing behavior change for diverse audiences, particularly in the areas of cancer prevention, addictive behaviors, and chronic disease management. She has a particular interest in
understanding the causal mechanisms underlying the inter-relations between health behaviors and cognitive, psychosocial, and environmental determinants.

Hilary Reno, MD, PhD
Co-Director, Public Health Data and Training Center; Associate Professor, Divisions of Infectious Diseases and Hospitalist Medicine, School of Medicine

Dr. Reno’s research focuses on factors that lead to sexually transmitted infections (STIs) in at-risk individuals in order to reduce rates of infection. Her ongoing research includes examining the use of extra-genital testing for Neisseria gonorrhoeae and Chlamydia trachomatis in patients living with HIV, as well as patients that present to her clinic. She is the medical director of the St. Louis County STI/HIV Prevention Training Center, a CDC funded training center that provides clinical training and technical assistance for clinicians and STI programs in sexual health topics and HIV prevention. Dr. Reno is also a fellow of the Infectious Diseases Society of America.

Michelle Silver, PhD, ScM
Assistant Professor, Department of Surgery, School of Medicine

Dr. Silver is an epidemiologist and health services researcher. Her research interests center around applied/translational epidemiology, and how to best use the results of epidemiologic studies to make and implement evidence-based decisions in cancer screening and prevention. Her research examines patient-, provider-, and system-level factors that influence the effective translation of evidence-based practices, especially screening recommendations, into routine clinical care. A large focus of her work is on screening and prevention of the human papillomavirus (HPV) and cervical cancer.

Christina Stallings, PhD
Professor of Molecular Microbiology, School of Medicine

Dr. Stallings is a member of the American Academy of Microbiology for her scientific achievements and original contributions that have advanced the field of microbiology. The Stalling Laboratory studies the molecular pathogenesis of Mycobacterium tuberculosis. Tuberculosis disease results in 1.5 million deaths a year, more than any other single infectious agent. This health crisis is exacerbated by the alarming emergence of multi-drug and extensively drug resistant strains. The inadequacies of present Tuberculosis therapies demand the discovery of new agents to treat M. tuberculosis infection, which requires insight into the pathways involved in M. tuberculosis pathogenesis.
2023 INSTITUTE FOR PUBLIC HEALTH SUMMER RESEARCH PROGRAM
RADIANCE MENTORS

Angela Brown, MD
Professor of Medicine, Cardiovascular Division, School of Medicine; Director, Hypertension Clinic

Dr. Brown’s primary research interest is in the area of hypertension and its relationship to other cardiovascular risk factors and heart function. She is also interested in women’s cardiovascular health, particular the effects of lifestyle modifications. Her clinical interest focuses on evaluation and management of patients with difficult to control hypertension. In addition to drug therapy, emphasis is placed on lifestyle modifications and cardiovascular risk assessment/management. Dr. Brown is a co-mentor with Dr. Mark Huffman.

Sharon Cresci, MD
Associate Professor of Medicine, Cardiovascular Division, School of Medicine

Dr. Cresci’s research focuses on the association of genetic variation with clinical outcomes in patients with cardiovascular disease and on the role of genetic variation in the variable response to pharmacologic treatment (i.e., Pharmacogenomics) of cardiovascular disease. Her specific interest is in individuals with both diabetes mellitus and coronary artery disease. The goal of her research is to ultimately be able to personalize each patient’s treatment based on their genotype.

John DiPersio, MD, PhD
Virginia E. and Sam J. Golman Endowed Professor in Medicine; Chief, Division of Oncology; Director, Center for Gene and Cellular Immunotherapy; Professor of Medicine, Pathology & Immunology, School of Medicine

Dr. DiPersio’s research interests include molecular biology of cytokine receptor signaling; use and manipulation of mobilized peripheral blood stem cells for autologous and allogeneic transplantation; genetic manipulation of T cells using suicide genes; and targeted gene expression in early hematopoietic stem cells.
Abhinav Diwan, MD
Professor of Medicine, Cell Biology and Physiology, Obstetrics and Gynecology; Division Chief of Cardiology at Saint Louis VA Medical Center

Dr. Diwan’s research focuses on the role of lysosomes in cellular homeostasis and response to stress. He has developed the expertise and tools to experimentally perturb and evaluate lysosome biology, concomitantly with disease modeling in in vitro and in vivo systems. His studies in the heart have focused upon the role of lysosome function in cardiac myocyte death, which plays a central role in causing heart failure in response to myocardial infarction and pressure overload hypertrophy. Dr. Diwan’s lab has uncovered evidence for dysregulation of the lysosome machinery as a major contributor to cardiomyocyte loss in myocardial ischemia-reperfusion injury.

Melanie Fields, MD, MSCI
Associate Professor of Pediatrics, Hematology & Oncology
Associate Director, Fellowship Program, Department of Pediatrics, School of Medicine

Dr. Fields’ research focuses on understanding the effect of storage age of transfused blood on clinical outcomes for acute chest syndrome, splenic sequestration, aplastic crisis, hyperhemolysis and stroke in pediatric patients with sickle cell disease. Her clinical interests include pediatric blood disorders in kids, anemia, and sickle cell disease.

Mark Huffman, MD, MPH
Professor of Medicine, Cardiovascular Division, School of Medicine; Co-Director, Global Health Center, Institute for Public Health

Dr. Huffman is a practicing cardiologist, researcher, and educator with more than a decade of experience in global cardiovascular epidemiology, clinical trials, implementation research, and health policy research and training. His research spans the spectrum of disease prevention. He is interested in improving global cardiovascular health and health care in low- and middle-income countries through the implementation of evidence-based interventions and policies and in bringing lessons learned back to the United States. Dr. Huffman’s research interests include global cardiovascular implementation science, health system, and policy research.
**Allison King, MD, MPH, PhD**

*Associate Professor of Occupational Therapy, Medicine, Pediatrics, Surgery (Prevention and Control), and Education, Department of Pediatrics, School of Medicine*

Also the co-director for hematology at Christian Hospital, Dr. King focuses on factors that impact a child’s opportunity to learn. From a biological standpoint, her lab studies how chronic diseases such as sickle cell disease or brain tumors alter cognition. In addition, she is interested in the environment’s influence on children’s development and participation. The goal of this work is to determine targets for intervention that will have the greatest impact on development and education.

**Karen Joynt Maddox, MD, MPH**

*Associate Professor of Medicine; Assistant Professor, Washington University Brown School of Social Work; Co-Director Center for Advancing Health Services, Policy & Economics Research; Cardiovascular Division, School of Medicine*

Dr. Joynt Maddox’s specific research interests include improving the measurement of the quality and efficiency of physicians, hospitals, and health systems; understanding the impact of policy interventions on health care, with a focus on value-based and alternative payment models; and reducing disparities in care, with a focus on vulnerable populations including racial and ethnic minorities, individuals living in poverty, individuals with disabilities, frail elders, and those in rural areas. Professor Joynt Maddox has authored more than 250 articles featured in the National Institute of Health Library of Medicine.

**Kory Lavine, MD, PhD**

*Associate Professor of Medicine, Developmental Biology, Pathology and Immunology, Cardiovascular Division, School of Medicine*

Dr. Lavine’s research interests include understanding the immunological mechanisms that govern cardiac recovery and the pathogenesis of heart failure, with a focus on the mechanisms that distinguish pediatric from adult cardiomyopathy. In addition, his interests lies with pathogenesis of primary graft dysfunction in cardiac transplantation and understanding the role of macrophages in coronary development and collateral growth of the coronary vasculature. His clinical interests relate to advanced heart failure, cardiac transplantation, and circulatory assist devices.
**Xiucui Ma, PhD**  
*Research Assistant Professor, Cardiovascular Division, School of Medicine*

Dr. Ma’s primary research interest is in defining the molecular and cellular mechanisms of cardiomyopathy and heart failure, and in development of novel therapeutic approaches targeting lysosome function to treat cardiac and metabolic diseases. She is interested in mechanistically probing lysosome biology in her role as a Research Assistant Professor in Dr. Abhinav Diwan’s research program. Dr. Ma is a co-mentor with Dr. Diwan.

---

**Jonathan Moreno, MD, PhD**  
*Instructor of Medicine, Cardiovascular Division, School of Medicine*

Dr. Moreno’s research focuses on utilizing computational approaches to understand and design better treatment strategies for the pharmacological management of heart failure, hypertrophic cardiomyopathy and inherited arrhythmia syndromes. Using computational tools and clinical datasets, Dr. Moreno is also interested in drug-repositioning — using old drugs for new targets in novel ways.

---

**Stephen Oh, MD, PhD**  
*Co-Chief, Division of Hematology, Associate Professor of Medicine, School of Medicine*

Dr. Oh’s research involves myeloproliferative neoplasms (MPNs), which are clonal hematologic malignancies typified by genetic alterations that activate JAK-STAT signaling. Chronic MPNs exhibit a propensity for transformation to secondary acute myeloid leukemia (sAML), which carries a dismal prognosis. The overall objective of his work is to better understand the pathogenetic mechanisms responsible for the initiation and development of MPNs, as well as the factors that drive evolution to sAML. His laboratory research is broadly organized into two areas.
Kristen Sanfilippo, MD, MPHS
Associate Professor of Medicine, Hematology Division, School of Medicine

Dr. Sanfilippo’s research interests include venous thromboembolism, cancer-associated thrombosis, anticoagulant-related bleeding, population health, outcomes research, and big data. Some of her clinical interests include venous thromboembolism, cancer-associated thrombosis, arterial thromboembolism, and anticoagulation.

Laura Graves Schuettpelz, MD, PhD
Professor of Pediatrics, Hematology & Oncology; Director of Fellowship Program; Co-Director, High Risk Hematologic Malignancy

Dr. Schuettpelz cares for children with cancer and blood diseases. She has a special interest in neuro-oncology.
The Institute for Public Health harnesses the strengths of Washington University to address the complex health issues and health disparities facing the St. Louis region and the world.

**CONNECTOR:** We improve, amplify and support public health efforts in St. Louis and around the world.

**CONVENER:** We bring together diverse disciplines to share knowledge, form partnerships and turn ideas into action.

**CATALYST:** We inspire innovative solutions to today’s most pressing public health challenges through targeted events, seed funding and other opportunities.

The vision for public health at Washington University is to improve community and global health through the creation of new knowledge, the application and translation of science, and the training of advanced academic and practice leaders in public health.

The mission for public health at Washington University includes five objectives:

- To generate distinctive transdisciplinary research discoveries and service interventions that address significant community and population health problems.
- To train a cadre of leaders who have an evidence-based approach to public health interventions, health services, and health policy.
- To educate the next generation of academic leaders in community and population health sciences.
- To eliminate health disparities and improve measurable health outcomes through sustained community and organizational partnerships.
- To significantly influence the development of sound public health policy.

Formed in 2008, the Institute for Public Health brings together many disciplines and diverse partners from across Washington University to solve the complex health challenges facing the St. Louis region and the world. We are championed by Chancellor Andrew Martin as one of the university’s key initiatives to achieve its overarching goal of enhancing leadership today to benefit America and the world tomorrow.

The Institute for Public Health organizes conferences, lectures, seminars and other events that allow experts within and beyond the university to learn, share and connect with one another. Our scholar network connects faculty in all seven schools of the university. We develop forums and funding opportunities for both faculty and students that encourage innovative collaborations and research. Our seven university-wide centers — which focus on aging, community health partnership and research, global health, data and training, dissemination and implementation, health economics and policy, and human rights, gender and migration, as well as our Gun Violence Initiative — break down silos and harness the strengths of the university’s research and practice across disciplines. Through these efforts, we amplify and accelerate Washington University’s ability to impact public health in St. Louis and around the world.
Global Health Center
publichealth.wustl.edu/centers/global

The goal of the Global Health Center at the Institute for Public Health is to improve global health through transdisciplinary programs and partnerships across Washington University and around the world.

How we work:
• We further research and innovation in global health across disciplines — including infectious disease, chronic disease, nutrition, and maternal and child health.
• We are thought leaders who convene local, national and international experts to find solutions to emerging global health challenges.
• We nurture trainees, helping to build the next generation of leaders in global health and foster connections among students and faculty to advance sharing, collaboration, and innovation.

Some of the initiatives organized and/or supported by the center are:
• Global Health Work in Progress
• Global Health Student Advisory Committee
• Global Health Annual Conference
• Global Health Week
• Visiting Global Health Speaker Series with opportunities for students to meet speakers
• Women in Global Health-Midwest Chapter
• Global Health Mentoring Program

National Heart, Lung, and Blood Institute (NHLBI)
https://www.nhlbi.nih.gov/

The RADIANCE Track (SummeR reseArch Diversity ProgrAm iN Cardiovascular Disease & Hematology) is supported by the National Heart, Lung, and Blood Institute (NHLBI) through an R25 award. Through this award, the NHLBI is committed to supporting research education activities that: (a) compliment and/or enhance the training of a workforce to meet the nation’s biomedical, behavioral and clinical research needs; (b) enhance the diversity of the biomedical, behavioral and clinical research workforce; (c) help recruit individuals with specific specialty or disciplinary backgrounds to research careers in biomedical, behavioral, and clinical research and its implications.

The National Institutes of Health (NIH) is the principal biomedical research agency of the Federal government. NIH is composed of 12 bureaus and institutes and six research and support divisions. The National Heart, Lung, and Blood Institute (NHLBI) is the second largest in terms of funding.
St. Louis Children’s Hospital (SLCH) and the Washington University School of Medicine’s Department of Pediatrics have been caring for children since the opening of SLCH in 1879. Founded by a group of eight pioneering women, the hospital opened in a small, rented house with 15 beds in the city of Saint Louis and it is the oldest pediatric hospital west of the Mississippi River and the seventh oldest in the United States. From those humble beginnings the Department of Pediatrics now provides clinical and community outreach programs that touch more than 250,000 patients annually. Another strong tenet of the Department of Pediatrics is research, and they have been international leaders in basic science and clinical research.

In 2006, SLCH and the Department of Pediatrics created the Children’s Discovery Institute (CDI), a world class center to promote innovation and creativity in collaborative multi-disciplinary research targeting some of the most devastating childhood diseases. This partnership is uniquely positioned to leverage the abilities of clinicians, investigators, trainees, and professional staff throughout the University’s academic and medical community to advance research in children, accelerating the realization of better treatments, cures and preventions. The CDI awards pediatric research grants within four centers: Congenital Heart Disease Center, McDonnell Pediatric Cancer Center, Center for Pediatric Pulmonary Disease and the Center for Metabolism and Immunity. The CDI also recognizes that despite great advances, child health on a global scale still has room for much improvement. Advances forward will depend on strong consistent research in public, international, translational and bench work related to global pediatric health. Therefore, a critical part of improving global pediatric health means recruiting, training and supporting young researchers in order to build a robust pipeline of future investigators. To help realize this goal, the CDI has generously funded the Summer Research Program for students interested in, and projects related to, global pediatric health.
COMMON LANGUAGE AND DEFINITIONS

What is Public and Global Health?
For the purpose of having a common language, we broadly define public health as focusing on the science, practice, and art of collective efforts to prevent disease, promote health, and prolong quality of life among populations, while assuring conditions in which all people can be healthy.

Rather than being a single discipline—public health as a profession includes the contributions of many disciplines/fields that impact the health of a population including, but not limited to epidemiology, behavioral science, medicine, social work, engineering, communication, business, law, and global health (CDC 1994, ASPH 2006, & WHO 2002).

Global Health is the area of study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide. Research, education and partnership can advance health equity in low-resource settings in St. Louis and around the world.

What is Translational Research?
Translation, as defined by the National Center for Advancing Translational Sciences, is the process of turning observations in the laboratory clinic and community into interventions that improve the health of individuals and the public – from diagnostics and therapeutics to medical procedures and behavioral changes.

Types of Translational Research

T1 “Bench to Bedside”
Laboratory-based research aimed at clarifying mechanisms of disease, developing measures or markers of disease presence, severity, or improvement, and developing drugs, devices, or interventions to treat disease or to improve health.

T2 “Bedside to Practice”
Generally, identifies community, patient, physician, and organizational factors that serve as barriers and facilitators to translation; develops novel intervention and implementation strategies to increase translation, such as quality improvement programs or policies; and evaluates the impact of strategies to increase translation of relevant healthy behaviors and processes of care.
T3 “Practice to Research”
Dissemination and implementation phase; translates the results from clinical studies into everyday clinical practice and health decision-making; identifies and resolves barriers to implementation of evidence-based guidelines into community practice.

T4 “Research and Practice to Community Public Health and Health Policy”
Health outcomes research; evaluates the ‘real world’ results that occur when T1-T3 research is implemented. (www.utsouthwestern.edu)
IPH SUMMER RESEARCH
PROGRAM REQUIREMENTS

1. **Program Participation Effort:** All students are expected to participate in the weekly seminars and workshops and review the reading materials before the sessions. Students will meet for a mid-program check-in and an end-of-program check-in. Students may schedule a session with a tutor at The Writing Center at WashU at https://writingcenter.wustl.edu/ to confer about their research abstract. In addition, students will complete all evaluations on seminars, mentor(s) and the program.

2. **Products:**
   - One blog post: Students will write a 250-500 word blog about one of the weekly seminars and a blog that is a reflection about some aspect of the program.
   - Research Abstract: Trainees will write a 250 word research abstract and provide two key words.
   - Mid-program Presentation/PowerPoint: Students will present a 5-minute presentation about their research project on June 27 & 28.
   - Symposium Presentation/PowerPoint: Students will present a 10-minute PowerPoint presentation about their research project on July 27 & 28. The research abstract, mid-program and symposium presentations must be approved by the student’s mentor.

3. **Research Policies and the Responsible Conduct of Research (RCR):** All students must comply with the ethical standards outlined by the Office of the Vice Chancellor for Research (research.wustl.edu/university-research-policies) throughout the duration of the program. IPH summer students must review:
   - Review the active learning video(s) program produced by the U.S. Dept. of Health & Human Services Office of Research Integrity: Intro video, Research Integrity Officer, Grad Student, Principal Investigator, Post Doc at ori.hhs.gov/the-lab
   - Read the ‘On Being a Scientist’ booklet www.nap.edu/catalog/4917/on-being-a-scientist-

4. **Alumni Updates:** Summer program students will be asked in the future to provide updates on an annual basis regarding their education, career development, and research.

5. **Academic and Non-Academic Transgressions:** All students must read through the “Certification of Receipt of University Policies Regarding Non-Academic Transgressions.”

6. **Seminars:** Students must attend all the seminars/workshops throughout the duration of their participation in the program.

7. **Participation:** Students will be allowed to miss one session during the program after notifying the program director, at least two days prior to the absence. If a student misses more than one seminar session without notification, he or she will receive a reduced stipend.
SEMINAR SERIES

Attendance Policy
For seminars, trainees are expected to attend all scheduled sessions for the complete duration of the program. Students are expected to arrive on time to the seminars, whether virtual or in-person, and stay until the end of the seminars. Attendance is recorded. If unable to attend a seminar, a participant must notify the program coordinator, at least two days in advance. Students may not miss more than one required session.

Program Seminars
Summer seminars/workshops are held weekly from June 5 – July 28, 2023. Please check the schedule for details on topic, date, time and zoom link.

IDENTIFICATION BADGES

Participants will be issued badges through the IPH. Any special access needed for a mentor’s research area must be requested by the mentor’s administrator. You should have your badge with you at all times with you on WashU’s campuses. If your badge is misplaced or stolen, please notify program staff immediately.

All program participants have access to the main libraries, John M. Olin Library on the Danforth Campus and Bernard Becker Medical Library on the Medical Campus, as well as other University libraries with their identification badge.

WASHINGTON UNIVERSITY POLICIES & SAFETY

For information on Washington University’s Human Resources policies, visit https://hr.wustl.edu/policies.

For information on Washington University’s policies for students, visit https://wustl.edu/about/compliance-policies/students.

Downloading the WUSTL Mobile app on your smartphone ensures that you will receive WashUAAlerts. After downloading, be sure to enable push notifications so that you receive the alerts. Learn more by visiting https://sts.wustl.edu/mobile-applications.

Report all emergencies, including crimes, fires, and injuries to Campus Security by dialing 314-362-4357 on the Medical Campus and 314-935-5555 on the Danforth Campus.
EVALUATION

All trainees are expected to complete required program evaluations. These evaluation forms are sent through Qualtrics and are mandatory for all students and must be completed by July 28, 2023.

Frequently Asked Questions about Evaluation

1. **What evaluations do I need to complete?**
   Seminar, mentor, and program evaluations.

2. **How will I receive and record my evaluations?**
   All evaluations will be sent via e-mail through Qualtrics survey software.

3. **Are my evaluation responses anonymous?**
   All data are aggregated and de-identified for reporting purposes. Only the program director has access to identified data. Identified information is not shared with other individuals without your permission.

4. **What is the purpose of the evaluations?**
   The Institute for Public Health uses information collected in evaluations to improve our programs and services provided to trainees. Evaluation responses are considered when making decisions that will affect trainees so please complete your evaluations. Your responses count!
Entering Time on Workday

To start, navigate to Workday (workday.wustl.edu) in your browser and log in with your WUSTL Key credentials, or open the Workday app and log in with your PIN number. If this is your first time using the Workday app, click here to learn how to log in and set your PIN.

Click on the Time application and scroll down to the “Time Clock” section. You will see two buttons: Check In and Check Out. (Note: On the app, you will also have the option to Check In/Out from the landing page.)

You should meet 35 hours each week for all required components of the Summer Research Program. Your hours will be adjusted if you exceed 35 hours.

**Check in**

1. Click the Check In button.

2. Make sure the Time Type field is set to Hours Worked.

3. If you have more than one job at WashU, you will also see a Position field (see image). Be sure to select the correct position from the drop-down list.

4. Double-check that your time type and position are correct, and then click OK.

**Check out**

1. Click Check Out.

2. Click OK to confirm that you want to check out.
**Missed Check In/Check Out**

The Workday Web Clock does not allow employees to manually correct their hours, including missed punches. **If you forget to check in and/or check out, email Guhan Iyer ASAP to request a correction.**

If you are not sure who your manager is, log into Workday, click on the **round cloud (or profile picture) icon** in the upper right corner of the screen, and then click **View Profile.** Your manager’s name will be displayed at the top of the page.

**If you find that you are having trouble remembering to check in/out, try setting alarms on your phone or computer to help you remember.** You can even do this within the Workday app; after you check in, you will be prompted to set a check out reminder.

**Review Your Time Record in Workday**

If you want to see how many hours you have worked in a particular week or confirm that your manager has corrected a missed check in/check out, you can review your time record by navigating to the **Time** application and choosing a week to view within the **Enter Time** box.
GUIDELINES FOR ACADEMIC & NON-ACADEMIC TRANSGRESSIONS

The following policy outlines the procedures that will be followed when there are questions of possible breaches of integrity, including those of a professional, academic or research nature. All matters involving possible breaches of integrity shall be brought to the attention of the Institute for Public Health Disciplinary Committee, whose members include institute leadership and the Global Health Center manager. Behavior inappropriate to the Summer Research Program shall mean breaches of personal confidence and trust including cheating or unauthorized use of materials; abuse, misrepresentation or other seriously improper conduct in relation to patients, research subjects or colleagues; and other misconduct, misrepresentation or failure in personal actions or in meeting obligations and others outlined and defined in the Washington University Student Judicial Code, the Bulletin of the School of Medicine, the Code of Conduct, and the Research Integrity Policy.

Once an issue is brought before the IPH Disciplinary Committee, the Committee will review the matter at hand and determine whether further action is required. The IPH Disciplinary Committee will also notify the scholar or trainee’s respective mentor and department and division head/chief of the pending investigation. If the committee finds further action is required on the basis of academic or professional concerns, the matter will be forwarded to one of the following committees based on the student’s role at the University:

- Students or trainees who are not employees of the University will have their cases reviewed by the Committee on Academic and Professional Evaluation of Students at the Washington University School of Medicine. Any decisions upon matters of disciplinary action including instances of unprofessional behavior will be determined pursuant to the guidelines outlined in the Bulletin of the School of Medicine. (See bulletin.wustl.edu/medicine/policies/wusm-professionalism-conduct)
- Allegations of improper academic or professional conduct by employees of Washington University will be reviewed according to the Washington University Office of Faculty Affairs Faculty Information Guide. (See research.wustl.edu/washington-university-research-integrity-policy)

For issues regarding research integrity, the “Washington University Research Integrity Policy,” will apply. This policy provides a framework to resolve allegations of research misconduct as rapidly and fairly as possible and to protect the rights and integrity of all individuals involved.

The Institute for Public Health Disciplinary Committee will follow any recommendations made by either the Committee on Academic and Professional Evaluation of Students or those conducting the investigation regarding questions or research integrity and the decisions regarding termination from the program will be made according to their recommendations. The mentor and Department and Division Head/Chief will be informed of the final outcome of the investigation.

All students received the website links to the “Bulletin of the School of Medicine,” the “Washington University Research Integrity Policy,” the “Faculty Information Guide,” and the “University Student Judicial Code” upon enrollment in the program and will be required to sign that they have read and received these policies?