



Paul Drain, MD, PhD, SEATRAC Leadership, UW

Dr. Drain's research group focuses on development, evaluation and implementation of diagnostic testing and clinic-based screening, including novel point-of-care technologies, to improve clinical care and patient-centered outcomes for TB and HIV in resource-limited settings. He is the Director of Clinical and Translational Research at the International Center for Clinical Research (ICRC) at the University of Washington. He currently teaches in the School of Public Health, and for medical students. His research has been supported by several institutes of the NIH, the Infectious Disease Society of America, Bill and Melinda Gates Foundation, the US CDC, the US Department of Defense, the NIH Center for AIDS Research, and more.



Andrew Fiore-Gartland, PhD, SEATRAC Leadership, FH

Dr. Fiore-Gartland is a biostatistician and computational biologist seeking to understand immune responses induced by vaccination, with the ultimate goal of identifying the specific responses that mediate protection. He has expertise in analysis of multiparameter flow cytometry, T cell receptor repertoire sequencing, and transcriptomic biomarkers. As a faculty member of the NIH HIV Vaccine Trials Network (HVTN) and Co-Director of the Vaccine and Immunology Statistical Center (VISC) he leads a team of statisticians and data scientists that conduct collaborative quantitative research to accelerate vaccine and biomarker development for TB, HIV, COVID-19, malaria and other diseases.



Thomas Hawn, MD, PhD, SEATRAC Leadership, UW

Tom's laboratory examines why individuals have different susceptibility to infections and whether these insights can lead to novel treatment and vaccine strategies. Studies include examining the functional and clinical significance of human variation in the innate immune system and its regulation of susceptibility to tuberculosis and other infections. His laboratory defines and characterizes the cellular function of genetic polymorphisms in innate immune response genes and the mechanisms of how they regulate susceptibility to human infection with the goal of elucidating novel therapeutic strategies.



Sylvia LaCourse, MD, MPH SEATRAC Leadership, UW

Dr. LaCourse's research focuses on improving TB screening, diagnosis, and prevention in peripartum people and children in high HIV-burden settings. Additional research interests include SARS-CoV-2 in peripartum people. Dr. LaCourse is a GWACH (Global Women, Adolescent, and Child health) scientific lead, Kenya Research and Training Center (KRTC) faculty member, and TB ECHO faculty. She is committed to inclusion as an IMPAACT (International Maternal Pediatric Adolescent AIDS Clinical Trials Network) TB Scientific Committee mentored junior investigator, and International Union Against TB and Lung Disease Maternal Child Health Working Group Scientific Co-Lead.



Tanya Parish, PhD, SEATRAC Leadership, SCRI

Dr. Parish's work is focused in two main areas: (i) understanding the pathogenic mechanisms and underlying biology of the global pathogen *Mycobacterium tuberculosis*; and (ii) discovering and developing novel drugs that are effective at curing drug sensitive and drug resistant tuberculosis. Her translational work comprises a range of early-stage drug discovery including drug target identification and validation, high throughput screening and medicinal chemistry. Dr. Parish's applied research has covered a broad range of chemistry and biology as applied to drug discovery from high throughput screening through to lead optimization.



Chetan Seshadri, MD, SEATRAC Leadership, UW

Dr. Seshadri received his MD from Rutgers New Jersey Medical School and completed his residency in Internal Medicine at Duke University. He served as a field doctor for Medecins sans Frontieres (Doctors Without Borders) prior to fellowship training in Infectious Diseases at Massachusetts General Hospital and the Brigham & Women's Hospital. He currently leads SEATRAC, a translational research program whose focus is to understand the factors required for protective immunity against *Mycobacterium tuberculosis*.



David Sherman, PhD, SEATRAC Leadership, UW

Dr. Sherman is a Professor and Department Chair of the Department of Microbiology in the University of Washington School of Medicine in Seattle. He earned his PhD in Biochemistry from Vanderbilt University, and performed post-graduate work at the Rockefeller University and at Washington University in St. Louis. His laboratory studies the molecular genetics, systems biology and pathogenesis of *M. tuberculosis*, and is also engaged in drug discovery efforts for mTB. Dr. Sherman played a lead role in the discovery and early development of the anti-TB agent pretomanid. In addition, his laboratory defined the mutation responsible for attenuation of the world's most widely used vaccine, BCG.



Kevin Urdahl, MD, PhD, SEATRAC Leadership, SCRI

Dr. Urdahl graduated from Concordia College (Moorhead, Minnesota), and earned an MD and a PhD in Microbiology/Immunology from the University of Minnesota. He completed a Pediatrics residency and an Infectious Diseases fellowship at Seattle Children's Hospital, and his postdoctoral work in Immunology at the University of Washington. He started his career as a primary investigator in the Department of Pediatrics at the University of Washington before joining the Center for Infectious Disease Research in 2010 (formerly known as the Seattle Biomedical Research Institute), which is now part of the Seattle Children's Research Institute. Dr. Urdahl also continues to be an attending physician in Pediatric Infectious Diseases at Seattle Children's Hospital.



Javeed Shah, MD, SEATRAC Consultant, UW

The Shah lab is interested in understanding the factors that influence host immune responses to TB. In particular, we are focussed on ways that macrophages, the primary cell infected by *M. tuberculosis*, can maintain function during prolonged infection. To this end, the Shah Lab has identified the critical stress response gene, TOLLIP, as a TB susceptibility gene that influences macrophage function over time. Our lab is dedicated to pursuing how these genes and others like them influence TB pathogenesis using a combination of human population-based methods and small animal models.



Adrienne Shapiro, MsC, MD, PhD, SEATRAC Consultant, UW

Acting Assistant Professor in the Departments of Global Health and Medicine at the University of Washington, her research focuses on strategies to improve diagnosis and prevention of tuberculosis (TB), particularly in people with HIV and in resource-limited settings. Dr. Shapiro is principal investigator of a career development (K23) award from the National Institute of Allergy and Infectious Diseases to develop optimized TB diagnostic algorithms using novel point-of-care diagnostic tools. She is also engaged in studies of delivery approaches for TB preventive therapy to people with HIV, HIV prevention medications and vaccines, and using point-of-care tools to evaluate risk factors for poor outcomes in TB and HIV, including drug and alcohol use.



Nitin Baliga, MsC, PhD, ISB

His team uses a systems approach to construct predictive models of cellular and molecular networks within pathogens, cancer cells, and environmental microbes to enable biotechnologies to overcome drug resistance, find new drugs, predict consequence of climate change, and manufacture bio-renewables. Dr. Baliga is actively engaged in science education. His contributions to HS education have had worldwide impact, and have won awards including the Alvin J. Thompson award. As a Professor at the Institute for Systems Biology, he was one of the founding members, and currently serves as the Director and Senior Vice President.



David Branigan, MS, TAG

Leads TAG in promoting the development of improved TB diagnostic technologies, equitable access, follows scientific advances relevant to the development and introduction of new TB diagnostics, creates resources to sensitize activists, policymakers and other stakeholders to these developments, and advances advocacy campaigns to promote equitable access to TB diagnostic testing according to the highest standard of care.



Jerry Cangelosi, PhD, UW

Dr. Cangelosi's research teams have generated 10 patents and over 80 publications in relevant areas including tuberculosis and related diseases, COVID-19, oral microbiology, water-borne pathogens, and healthcare-associated infections. These activities share strong emphases on translation and global health impact. In recent years he has led or co-led infectious disease studies in the United States, Bangladesh, South Africa, Uganda, and Kenya. Among the outputs are novel, non-invasive tuberculosis screening methods that are now in expanded clinical studies worldwide. Dr. Cangelosi is Professor in the University of Washington Department of Environmental & Occupational Health Sciences (DEOHS) and adjunct professor in the departments of Global Health and Epidemiology.



Stewart Chang, PhD, BMGF

Chang is a Computational biologist with a deep interest in immunological and epidemiological data and their application to disease control strategies. Dr. Chang is always curious about all things science.



Rafael Hernandez, MD, PhD, SCRI

Dr. Hernandez, MD, PhD, is a member of the Center for Global Infectious Disease Research (CGIDR) at Seattle Children's Research Institute and an acting instructor in the Department of Pediatrics, Division of Infectious Diseases, at the University of Washington. He also provides patient care as an attending physician in pediatric infectious diseases at Seattle Children's Hospital. The Hernandez Lab uses a combination of genetics, molecular biology, cell culture models and animal models to probe the interactions between mycobacterial pathogens and host immune cells.



Sarah Iribarren, PhD, RN, UW

Dr. Iribarren's program of research focuses on developing innovative patient-centered approaches to bridge gaps between patients and health care professionals to improve clinical outcomes. In particular, her efforts have focused on TB and HIV prevention and treatment management within low- and middle-income settings and amongst disadvantaged populations. During doctoral studies, Dr. Iribarren was a Fogarty International Clinical Research Scholar in Argentina.



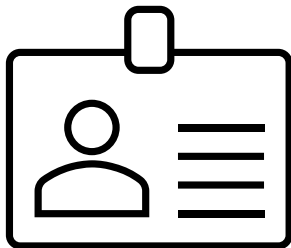
Jason Simmons, MD, PhD, UW

Dr. Simmon's research interests include exploring human cohorts with rare immune outcomes to better understand natural resistance to infection with the hope that protective pathways may be identified for therapeutic targetting. With a focus on Mycobacterium tuberculosis (Mtb), the agent that causes human tuberculosis infection, he combines results from genetic association studies with findings from macrophages exposed to Mtb in vitro to identify novel host resistance pathways. His additional interests include better defining immune reactions that complicate, and are commonly seen in leprosy.



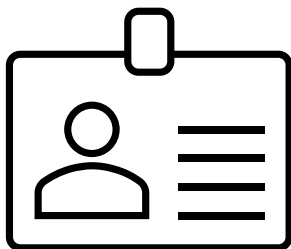
Grace John-Stewart MD, PhD, UW

Professor in the Departments of Global Health, Medicine, Epidemiology and Pediatrics at University of Washington. Her research focuses on advancing infectious diseases research in women, adolescents and children, as part of a collaborative research in Kenya. This work has included clinical trials, molecular epidemiology, implementation science, and large-scale evaluations. She is Co-Director of the UW Center for Global Health of Women, Adolescents and Children (UW Global WACH), an Associate Director of UW/Fred Hutch Center for AIDS Research (CFAR), and a member of the Kenya Research and Training Center.



Elizabeth Bates

Dr. Elizabeth Bates is a Family Practice Specialist in Bethel, Alaska. She graduated with honors in 2015. Having more than 8 years of diverse experiences, Dr. Elizabeth Bates affiliates with Yukon Kuskokwim Delta Reg Hospital and cooperates with many other doctors and specialists in medical group [Yukon-kuskokwim Health Corporation](#).



Brian Lefferts, MPH, YKHC

Director, Office of Environmental Health & Engineering at YKHC

BMGF – [Bill & Melinda Gates Foundation](#)

FH – [Fred Hutchinson Cancer Center](#)

ISB – [Institute for Systems Biology](#)

SCRI – [Seattle Children's Research Institute](#)

TAG – [Treatment Action Group](#)

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