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**UPCOMING EVENTS** 

BULLETIN BOARD RECENT PUBLICATIONS From January 29-31, 2025, the Ethiopia-Emory TB Research Training Program (EETB-RTP) hosted their annual in-country conference in Bishoftu, Ethiopia. The Program's cohort of new trainees for 2025 were welcomed and presented their current research priorities to past trainees, mentors, collaborators, EETB-RTP leadership, guest lecturers, and other TBfocused colleagues. Presentations included topics such as TB and Nutrition, Translational and Implementation Science, Bovine TB, Grant Writing, and Team Science. We sincerely enjoyed building relationships with our trusted partners and continuing to fuel our passion for the advancement of TB research.



**Ethiopia-Emory** TB Research Training Program

## JOHN GREEN IN CONVERSATION WITH LAUREL BRISTOW -EVERYTHING IS TUBERCULOSIS



The Emory/Georgia TRAC is excited to host, in collaboration with <u>A Cappella</u> <u>Books</u> and the <u>Emory Center for Public</u> <u>Scholarship and Engagement</u>, 'John <u>Green in conversation with Laurel</u> <u>Bristow - Everything Is Tuberculosis'</u>. John Green is a #1 internationally bestselling author. His upcoming book 'Everything is Tuberculosis: The <u>History and Persistence of Our</u> <u>Deadliest Infection'</u> will be released on March 18th. John is a passionate

advocate for global healthcare reform. His advocacy work includes <u>TBfighters</u>, a collective of TB and global health activists committed to fighting the structural causes of TB. John will be in conversation with <u>Laurel Bristow</u> the host of the Emory Rollins/WABE weekly public health podcast, "Health Wanted" and former Program Director of our Emory/Georgia TRAC. Although tickets are sold out for the event, we are hoping it will be live streamed **- please stay tuned!** We are also maintaining a waitlist for tickets to the live event. Please reach out to lisa.sharling@emory.edu if you would like to be added to the waitlist. We also encourage you to buy the book through <u>A Cappella Books</u> or vendors listed <u>here</u>.

## **TRAC WORLD TB DAY SYMPOSIUM & RECEPTION**



## Monday March 24th, 2-6pm

Rollins School of Public Health Ballroom of the R. Randall Rollins (RRR) Building & <u>Zoom (</u>hybrid)

**MORE DETAILS COMING SOON!!!** 

# **TB DATA SCIENCE ACCELERATOR AWARD**

TRMC Emory-Georgia TRAC Dataverse

Kudos to **Prashant Bajpai**, **PhD**, **MTech**, post doctoral researcher in Jyothi Rengarjan's lab at Emory University for receiving a TRAC TB Data Science Accelerator Award of \$4,000. This call for applications was intended to stimulate TB research using publicly available TB databases. Dr. Bajpai's project "Analyzing transcriptomics and metabolomics datasets to identify mitochondrial signatures associated with protection against tuberculosis" will leverage four databases:



the <u>Gene Expression Omnibus (GEO)</u>, a publicly available transcriptomics database which includes several RNAseq datasets from mouse, human and non-human primates (NHP) infected with Mtb; the <u>Mass Spectrometry Interactive Virtual Environment (MassIVE)</u>, a publicly available proteomic and metabolomic dataset repository including samples from TB patients; and <u>MitoCarta3.0</u> an inventory of human mitochondrial proteins and pathways.

We encourage trainees, including PhD students and post doctoral researchers, to explore the **Emory-Georgia TRAC Dataverse**, an open-access database that includes diverse cohorts of persons with or at risk for TB in South Africa, Kenya, Uganda, Philippines, Ethiopia, the country of Georgia and DeKalb County and Fulton Counties in the state of Georgia. These cohorts include epidemiologic, sociodemographic, clinical, and mycobacterial genomic data, in addition to archived biospecimens. Please contact **TRAC Clinical and Population Science Co-Directors**, Sarita Shah, MD, MPH and Christopher Whalen, MD, MS with any questions. Projects using Dataverse or other publicly available datasets are eligible to be submitted for **TRAC** <u>Accelerator Award</u> funds!



#### The Union

## ONLINE COURSE ON HOW TO DEVELOP A RESEARCH GRANT PROPOSAL

The <u>International Union against Tuberculosis and Lung Disease</u> (The Union) has developed a grant writing training course titled 'How to Develop a Research Grant Proposal' that is now publicly available on <u>The Union's website</u>. The course is available as an asynchronous online learning option with a mix of educational units that are approximately 20 minutes each. A variety of engaging activities such as polls, quizzes, small case studies, multiple-choice questions are used to support learner engagement. The course provides researchers with the relevant knowledge and skills to plan, design and a write grants. It was developed through support from the Bill & Melinda Gates Foundation grant led by MPIs, **Sarita Shah, MD, MPH (Emory)**, and **Macarthur Charles, MD, PhD (CDC)**, in collaboration with the CDC Foundation. Online registrations have included participants from Nigeria, India, Uganda, Cameroon, Namibia, Ethiopia, Zambia, Philippines, Kyrgyzstan, Myanmar.

# **TRACcolades**

The entire TRAC team extends its heartfelt congratulations to **Marcos Coutinho Schechter** and **Bethany** on the birth of their son, Santiago Hall Schechter. On the right, you can see Santiago's first snow day in Atlanta! We wish them all the best as they begin this exciting new chapter.





Congratulations to **Ashutosh Pathak**, TRAC-affiliated partner at the University of Georgia, on his recent DoD grant award in collaboration with colleagues at the Walter Reed Army Institute of Research. The title of the grant is "Cryo-preservation of human erythrocytes as a new strategy to mitigate donor variability and oscillations in mosquito infectivity during Controlled Human Malaria Infection (CHMI) trials via mosquito bite challenge."

#### FEBRUARY 2025

# **Publication Highlights**



Congrats to TRAC pilot awardee **Glyzelle Anne Lagason**, **MD** on her recent publication titled, "<u>Trends in Knowledge, Attitude and Perceptions about</u> <u>HIV among Filipinos During and After the COVID-19 Pandemic: Responses</u> <u>from a Digital Survey</u>". This study examines HIV knowledge among Filipinos using survey data collected during and after the COVID-19

pandemic. The results revealed that there was an increased knowledge of HIV transmission and prevention after the pandemic with most of the participants reporting social media and television as their main source of information. This study underscores the importance of utilizing social media platforms for HIV awareness campaigns to combat existing stigma and misconceptions among youth affected by the epidemic.

Congratulations to **Cheryl Day**, **PhD**, **Angie Campbell**, **MA**, and **Neel Gandhi**, **MD** on their recent PubMed publication titled <u>"HIV co-infection</u> is associated with increased HLA-DR expression by Mycobacterium tuberculosis-specific CD4 T cells in people with latent tuberculosis infection." The study focuses on the impact of HIV infection on Mycobacterium tuberculosis (Mtb)-specific CD4 T cell responses in Kenyan adults with latent tuberculosis infection. The results show HIV co-infection is associated with increased expression of HLA-DR on Mtbspecific CD4 T cells, which may serve as an early biomarker of heightened mycobacterial antigen exposure in vivo, potentially indicating an elevated risk of developing active tuberculosis.



Congratulations to Ashutosh Pathak, TRAC investigator at the University of Georgia, on his recent publication titled <u>"Thermal variation influences</u> <u>the transcriptome of the major malaria vector Anopheles stephensi</u>". His study looks at the transcriptomic response of Anopheles stephensi, a major vector of human malaria, to different temperature regimes, revealing how thermal variation affects gene expression patterns related to blood meal digestion, stress response, and reproduction, with implications for mosquito physiology, vector competence, and potential control strategies

#### FEBRUARY 2025

**Sean Wasserman, MBChB, MMed, PhD**, reader in Infectious Diseases at the Institute for Infection and Immunity, St George's, University of London and adjunct Associate Professor in the Department of Medicine, University of Cape Town co-authored the publication titled "<u>Oral Regimens for</u>



**Rifampin-Resistant, Fluoroquinolone-Susceptible Tuberculosis.**" This was an international, phase 3 randomized controlled trial conducted with EndTB partners,

including TB physician Nana Kiria, MD at the TRAC partner institution the National Center



for Tuberculosis and Lung Disease in Tbilisi, Georgia. The study compared standard therapy for fluoroquinolone-susceptible, rifampin-resistant tuberculosis with five 9-month oral regimens and found four new tuberculosis treatment regimens were non-inferior to standard therapy, with similar rates of favorable outcomes and adverse events, including hepatotoxicity.

# **Upcoming Events**

# TB WORKS IN PROGRESS SEMINAR: FEASIBILITY, ACCEPTABILITY, AND ETHICAL ISSUES IN USING WEARABLE DIGITAL TECHNOLOGIES IN COMMUNITY HEALTH RESEARCH IN URBAN UGANDA



FRIDAY FEBRUARY 28, 2025 10-11AM CNR 3001 & ZOOM

**Dr. Sarah Zalwango** is a leader in public health and TB/HIV research, serving as Director of Public Health and Environment at Kampala Capital City Authority, Uganda. She oversees 400+ staff and six health facilities, serving over 1.2 million people in Kampala. With



over 15 years of experience, Dr. Zalwango leads public health responses to epidemics, designs policies addressing social determinants of health, and integrates cross-sector approaches into public service delivery. As a Senior Research Scientist at Makerere University and the Uganda Society for Health Scientists, she has dedicated 20+ years to studying TB transmission, community case finding, TB/HIV co-infection, and delays in diagnosis. Recently, she has focused on using digital technologies and wearable devices in TB research in urban Uganda.

## **SYSTEMS BIOLOGY VIRTUAL & IN-PERSON OFFICE HOURS**

4th Thursday of the month 10am - 11am ET, RRR 205 & <u>Zoom</u>



Jeffrey Collins, MD, MS

Boris Minasenko, MS

Drop in to receive one-on-one support from Emory University informaticists with 'omics' study design and data analysis for tuberculosis research - including bulk and single cell transcriptomics, metabolomics and lipidomics. For more information please contact: **jeffrey.michael.collins@emory.edu** 



Ashish Sharma, PhD

# **Bulletin Board**

# SCIENCV WORKSHOP SERIES

New proposals and annual Research Progress and Performance Reports (RPPRs) submitted to the National Institutes of Health (NIH) on or after May 25, 2025, are required to use the new Common Forms and <u>SciENcv</u> for biosketches and Current and Pending Support for key personnel - please see <u>NOT-OD-24-163</u> for more details. SciENcv (Science Experts Network Curriculum Vitae) is an application in My NCBI that helps you create and manage documents in support of grant applications with participating agencies. Emory's Research Compliance and Regulatory Affairs (RCRA) Office has compiled helpful resources on their <u>website</u> and are offering a series of workshops in early 2025 - for more info please see <u>here</u>.

### R01 RFA: INTEGRATING MENTAL HEALTH CARE INTO HEALTH CARE SYSTEMS AND NON-HEALTH SETTINGS IN LOW- AND MIDDLE-INCOME COUNTRIES

NIH

NIH Program Announcement may open up opportunities to study integration of mental health and TB services: <u>PAR-25-201: Integrating Mental Health Care into Health Care</u> <u>Systems and Non-Health Settings in Low- and Middle-Income Countries</u>.

The notice of funding opportunity seeks implementation research projects focused on the integrating mental health services with chronic health care (for both communicable and non-communicable conditions) across various healthcare and non-healthcare settings (such as schools, places of worship, and community centers) in low and middle-income countries (LMICs).

## THE SUMMER INSTITUTE IN STATISTICS AND MODELING IN INFECTIOUS DISEASES (SISMID)

<u>SISMID</u> is designed to introduce infectious disease researchers to modern methods of statistical analysis and mathematical modeling. Since its founding in 2009 by <u>Dr. Betz</u> <u>Halloran</u> of University of Washington, SISMID has trained thousands of researchers from academia, government, and industry in cutting edge analytic methods. SISMID's new home is at Emory University, and housed within the Rollins School of Public Health, under the direction of <u>Dr. Natalie Dean and Dr. Ben Lopman</u>. Scholarships are available - more info here.



Summer Institute in Statistics and Modeling in Infectious Diseases 17<sup>TH</sup> ANNUAL SISMID JULY 7 - 30, 2025 EMORY UNIVERSITY ATLANTA, GA ONLINE - JULY 7-11, 2025

IN-PERSON - JULY 14-30, 2025





Have items to include in a future newsletter? Email: lisa.sharling@emory.edu

# **January Publications**

**Auld SC**, Queiroz ATL, Araujo-Pereira M, Maenetje P, Mofokeng N, Mngomezulu L, Masilela D, Dobosh B, Tirouvanziam R, Kornfeld H, Andrade BB, Bisson GP. <u>Inflammatory profiles in sputum and blood of</u> <u>people with TB with and without HIV coinfection</u>. Tuberculosis (Edinb). 2025;151:102612. DOI: 10.1016/j.tube.2025.102612.

Didden C, Egger M, Folb N, **Maartens G**, Rohner E, Kassanjee R, Mesa-Vieira C, Kriel A, Seedat S, Haas AD. <u>The Contribution of Noncommunicable and Infectious Diseases to the Effect of Depression on</u> <u>Mortality: A Longitudinal Causal Mediation Analysis.</u> Epidemiology. 2025;36(1):88-98. DOI: 10.1097/ede.00000000001804.

Goig GA, Loiseau C, Maghradze N, McHedlishvili K, Avaliani T, Brites D, Borrell S, Aspindzelashvili R, Avaliani Z, **Kipiani M, Tukvadze N**, Jugheli L, Gagneux S. <u>Transmission as a Key Driver of Resistance to</u> <u>the New Tuberculosis Drugs.</u> N Engl J Med. 2025;392(1):97-9. DOI: 10.1056/NEJMc2404644.

Goletti D, **Meintjes G**, Andrade BB, Zumla A, Shan Lee S. <u>Insights from the 2024 WHO Global</u> <u>Tuberculosis Report - More Comprehensive Action, Innovation, and Investments required for achieving</u> <u>WHO End TB goals.</u> Int J Infect Dis. 2025;150:107325. DOI: 10.1016/j.ijid.2024.107325.

Guglielmetti L, Khan U, Velásquez GE, Gouillou M, Abubakirov A, Baudin E, Berikova E, Berry C, Bonnet M, Cellamare M, Chavan V, Cox V, Dakenova Z, de Jong BC, Ferlazzo G, Karabayev A, Kirakosyan O, Kiria N, Kunda M, Lachenal N, Lecca L, McIlleron H, Motta I, Toscano SM, Mushtaque H, Nahid P, Oyewusi L, Panda S, Patil S, Phillips PPJ, Ruiz J, Salahuddin N, Garavito ES, Seung KJ, Ticona E, Trippa L, Vasquez DEV, **Wasserman S**, Rich ML, Varaine F, Mitnick CD. <u>Oral Regimens for Rifampin-Resistant</u>, *Fluoroquinolone-Susceptible Tuberculosis*. N Engl J Med. 2025;392(5):468-82. DOI: 10.1056/NEJMoa2400327.

Hoover AT, Woldeamanuel Y, **Wassie L**, Eyob H, Haile Mariam D, **Kempker RR, Blumberg HM**, **Comeau DL**, **Bobosha K**. <u>Recruitment Strategies to Improve Gender Equity in Clinical and Translational Research</u> <u>Training in Ethiopia.</u> Am J Trop Med Hyg. 2025;112(1):13–6. DOI: 10.4269/ajtmh.24–0120.

Kenfack Teponnou GA, Joubert A, Spaltman S, Merwe MV, Zangenberg E, Sawe S, Denti P, Castel S, Conradie F, Court R, **Maartens G**, Wiesner L. <u>Development and validation of an LC-MS/MS multiplex</u> <u>assay for the quantification of bedaquiline, n-desmethyl bedaquiline, linezolid, levofloxacin, and</u> <u>clofazimine in dried blood spots.</u> J Chromatogr B Analyt Technol Biomed Life Sci. 2025;1252:124470. DOI: 10.1016/j.jchromb.2025.124470.

Khayumbi J, Sasser LE, McLaughlin TA, Ongalo J, Tonui J, Ouma SG, **Campbell A**, Odhiambo FH, **Gandhi NR**, Kiprotich C, **Day CL**. <u>HIV co-infection is associated with increased HLA-DR expression by</u> <u>Mycobacterium tuberculosis-specific CD4 T cells in people with latent tuberculosis infection.</u> Tuberculosis (Edinb). 2025;151:102607. DOI: 10.1016/j.tube.2025.102607.

#### FEBRUARY 2025

March VFA, Maghradze N, McHedlishvili K, Avaliani T, Aspindzelashvili R, Avaliani Z, **Kipiani M**, **Tukvadze N**, Jugheli L, Bouaouina S, Doetsch A, Goig GA, Gagneux S, Borrell S. <u>Drug-induced differential</u> <u>culturability in diverse strains of Mycobacterium tuberculosis.</u> Sci Rep. 2025;15(1):3588. DOI: 10.1038/s41598-024-85092-7.

Pfurtscheller T, Tsutsunava A, Maghradze N, Gujabidze M, **Bablishvili N**, Yerlikaya S, Denkinger CM, **Tukvadze N**, Gupta-Wright A. <u>Programmatic Diagnostic Accuracy and Clinical Utility of Xpert MTB/XDR</u> <u>in Patients with Rifampicin-Resistant Tuberculosis in Georgia.</u> Open Forum Infect Dis. 2025;12(2):ofaf022. DOI: 10.1093/ofid/ofaf022.

Ramirez D, Brumwell A, Rahman MM, Hossain F, Kulkarni S, **Malik AA**, Campbell JI, van de Water BJ, Kamul MK, Rahman MT, Hussain H, Creswell J, Roy T, Brooks MB. <u>Age- and sex-specific care cascades to detect gaps in the care of children with tuberculosis in Bangladesh: a cohort study.</u> J Glob Health. 2025;15:04024. DOI: 10.7189/jogh.15.04024.

Schildknecht KR, Deutsch-Feldman M, Cummins J, Forbes DP, **Haddad MB**, Apata IW, **Wortham JM**. <u>Tuberculosis in the US Kidney Failure Population.</u> J Am Soc Nephrol. 2025. DOI: 10.1681/asn.000000621.

**Sekandi JN**, Buregyeya E, **Zalwango S**, Nakkonde D, Kaggwa P, Quach THT, Asiimwe D, Atuyambe L, Dobbin K. <u>Effectiveness of a Mobile Health Intervention (DOT Selfie) in Increasing Treatment Adherence Monitoring and Support for Patients With Tuberculosis in Uganda: Randomized Controlled Trial. JMIR Mhealth Uhealth. 2025;13:e57991. DOI: 10.2196/57991.</u>

**Wasserman S**, Donovan J, Kestelyn E, Watson JA, Aarnoutse RE, Barnacle JR, Boulware DR, Chow FC, Cresswell FV, Davis AG, Dooley KE, Figaji AA, Gibb DM, Huynh J, Imran D, Marais S, Meya DB, Misra UK, Modi M, Raberahona M, Ganiem AR, Rohlwink UK, Ruslami R, Seddon JA, Skolimowska KH, Solomons RS, Stek CJ, Thuong NTT, van Crevel R, Whitaker C, Thwaites GE, Wilkinson RJ. <u>Advancing the chemotherapy of tuberculous meningitis: a consensus view.</u> Lancet Infect Dis. 2025;25(1):e47-e58. DOI: 10.1016/s1473-3099(24)00512-7.

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