

Newsletter



TRAC Pilot Award Request for Applications



Letter of intent deadline: September 19, 2024

Proposal submission deadline: November 14, 2024

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RECENT PUBLICATIONS

The Emory/Georgia TRAC is excited to announce the [Request for Applications](#) (RFA) for Round 3 of the pilot grant initiative to support TB-related research by Early-Stage Investigators (ESIs) and investigators new to TB. These awards seek to stimulate new research ideas, catalyze new research collaborations, provide resources to generate preliminary data to support external grant submissions, and attract established non-TB investigators to pursue multidisciplinary TB research. There are three categories of grants:

- **TRAC-03** awards to support US-based ESIs (including Post-Docs and Fellows) and investigators new to TB generate essential preliminary data for NIH applications
- **TRAC-C** awards are co-funded grants that stimulate collaborative research in specific areas: TB/HIV, TB/diabetes mellitus, TB sex-based research, and TB/Influenza
- **TRAC-G** awards are intended to develop and foster equitable global health research collaborations. A list of eligible international institutions can be found in the RFA [here](#).

Publication Highlight

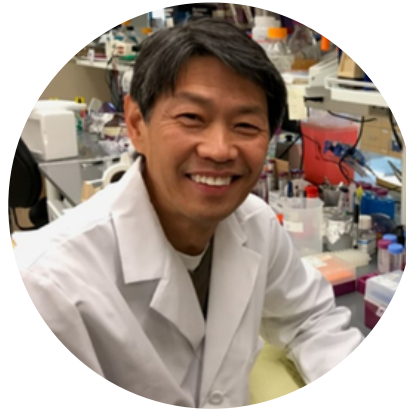


TRAC pilot awardee **Dr. Dessa Jean Casalme** (De La Salle Medical and Health Sciences Institute; DLSHMSI) played a key role alongside collaborators in South Africa at the University of Witwatersrand and University of Cape Town for the recent publication in IJTLD OPEN journal entitled '**Cost and cost-effectiveness of BPAL regimen used in drug-resistant TB treatment in the Philippines**'. Under programmatic conditions, the study found costs incurred by patients on the 6-month BPAL/M regimen for drug-resistant TB were 37% (95% CI 22–56) less than the 9–11-month standard short oral regimen and 50% (95% CI 32–68) less than the 18–21-month standard long oral regimen, while providers could save 36% (95% CI 21–56) to 80% (95% CI 64–93) per successful treatment, respectively. Treatment of drug-resistant TB with BPAL /M was cost-saving for patients and cost-effective for the health system. Dr. Casalme's lead mentors are **Dr. Maricelle Gler** (DLSMHSI) and **Dr. Juliet Sekandi** (University of Georgia).

TRACcolades

Kudos to **Ayana Paul**, doctoral student in Emory's Graduate Division of Biological and Biomedical Sciences Microbiology and Molecular Genetics Program on being awarded an NIH/NIAID Research Supplement to Promote Diversity in Health-Related Research. Ayana is performing her research in the lab of TRAC Co-Director **Jyothi Rengarajan, PhD**, under the parent R01 award '*Deep spatial immune profiling of granulomas and M. tuberculosis adaptation to disease*'. Her thesis project is entitled '***Characterizing the interplay between IL-17 and macrophage immunometabolism during Mtb infection***'. Through understanding the role of specific immune cell signaling in the control of *M. tuberculosis* infection her work aims to inform vaccine development.





Congratulations to TRAC Co-Director **Jyothi Rengarajan, PhD** (Emory School of Medicine, Dept. of Medicine, Infectious Diseases), **Baek Kim, PhD** (Emory School of Medicine, Dept. of Pediatrics), and **Bashar Staitieh, MD** (Emory School of Medicine, Dept. of Medicine) on the their collaborative NIH/



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NIAID R01 entitled '*Investigating alveolar macrophages in PLWH as targets for HIV persistence, residual inflammation, and immune activation*'. Co-investigators include **Sara Auld, MD, MSc** (Emory School of Medicine, Dept. of Medicine and Emory Rollins School of Public, Dept. of Epidemiology and **Eric Flenaugh, MD** (Morehouse School of Medicine). People living with HIV on antiretroviral therapy retain low levels of virus within cells and are not fully cured of HIV, remaining at higher risk for pulmonary infections such as pneumonia and TB than those without HIV. The collaborative research team aims to understand how the lung compartment of people with HIV contributes to both the persistence of HIV and dysfunctional immune responses to *M. tuberculosis*.

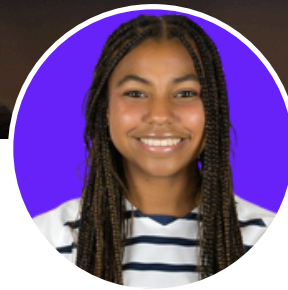
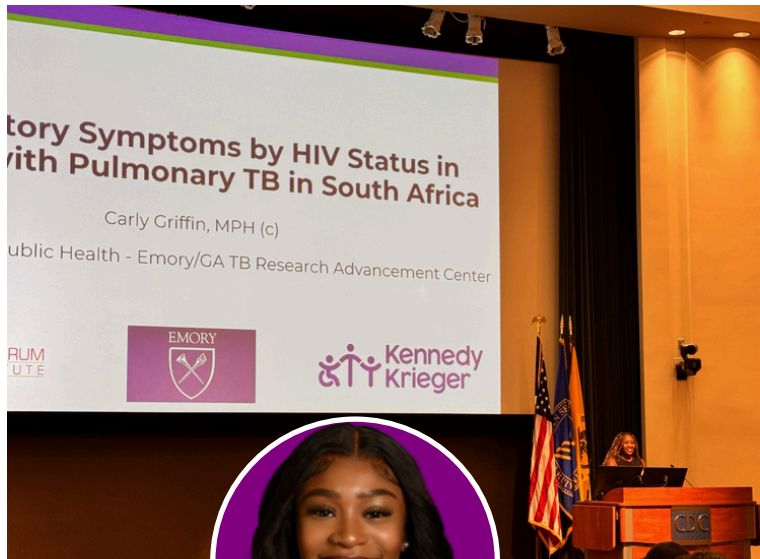


Congratulations to **Jessica Rothman**, doctoral student in the Emory Rollins School of Public (RSPH) Health's Epidemiology Program on receiving a 12-month [Ferguson Emerging Infectious Diseases RISE fellowship](#). The fellowship supports students working on projects



related to infectious disease and health equity. Jessica is working on estimating the potential impact of a TB vaccine program that would prioritize high-risk groups in the U.S. Her thesis advisor is **Kristin Nelson, PhD** (Emory RSPH, Dept. of Epidemiology).

Kudos to MPH candidates ('25) **Carly Griffin** (mentor: **Sara Auld, MD**) and **Sylvie Prepetit** (mentor: **Sarita Shah, MD, MPH**) on their stellar oral and poster presentations of their summer Dr. James A. Ferguson Emerging Infectious Diseases Research Initiatives for Student Enhancement (RISE) Fellowship projects at the CDC Showcase and Expo, July 29-31, 2024.



Bulletin Board

HALTING TUBERCULOSIS (TB) TRANSMISSION



R01 research project grant request for funding (RFA) [RFA-AI-24-049](#) was issued to understand the critical drivers of TB transmission at the individual and population levels in high-burden settings; to develop effective methods to measure rates of TB transmission that rely on an increased understanding of the biomedical basis of transmission and related risk factors; and assess potential interventions, including low-cost and low-tech options, to prevent TB transmission and detect infectious TB. Non-domestic (non-U.S.) entities (foreign organizations) are eligible to apply. The deadline is December 4th, 2024. **The RFA can be found [here](#).**



SPECIAL REQUEST FOR APPLICATIONS TB DATA SCIENCE ACCELERATOR AWARDS

The Emory/Georgia Tuberculosis Research Advancement Center is excited to announce a special request for applications for **TRAC Accelerator Awards** to fund research using publicly available databases for TB research. The deadline for applications: **December 2, 2024**.

More information and application portal can be found [here!](#)

Upcoming Events

INFLUENTIAL MENTORING WORKSHOP SERIES



All sessions are **Thursdays**
9am - 10am ET



REGISTER NOW



The TRAC Influential Mentors series comprises five virtual sessions that focus on recent scholarship on mentorship, tools for mentors and mentees to strengthen relationships, mentoring across cultures, and building mentoring programs. One session features a panel discussion where experienced mentors and mentees will share best practices and lessons learned. This series is tailored for TB research mentors and mentees from various backgrounds and ranks. Participants who attend four out of five sessions will receive a certificate, however registered participants may attend select sessions. The sessions are led by Dr. Dawn Comeau, Director of Mentor Training at Emory's TRAC and Professor at Rollins School of Public Health.

July 25	<i>Foundations of Mentoring</i>
August 15	<i>Setting Expectations between Mentors and Mentees</i>
September 26	<i>Cross-cultural Mentoring</i>
October 24	<i>Mentoring Best Practices: A Panel Discussion with Experienced Mentors and Mentees</i>
November 21	<i>Building Mentoring Capacity at institutions</i>

TB WORKS IN PROGRESS SEMINAR: PLASMA METABOLITE SIGNATURES TO DIAGNOSE TB DISEASE AND MONITOR TREATMENT RESPONSE: FROM DISCOVERY TO TRANSLATION



Friday August 16 2024, 9-10am
CNR Room 3001 and [Zoom](#) [[Flyer](#)]



Jeffrey Collins, MD, MPH is an Associate Professor of Medicine in the Division of Infectious Diseases, Emory University School of Medicine, and Co-Director of Emory/GA TRAC's Bioinformatics and Integrated Systems Biology Core. His research interests span clinical, translational, and epidemiologic TB research with a focus on using approaches in high-resolution metabolomics and lipidomics to identify novel biomarkers and host-pathogen interactions across the spectrum of TB infection and disease.

PUBLIC DATABASES FOR TB RESEARCH LECTURE SERIES: USING DATA FROM THE US VETERANS HEALTH ADMINISTRATION FOR COHORT ANALYSES RELATED TO TUBERCULOSIS RESEARCH



Tuesday August 27 2024, 1-2pm
CNR Room 3001 and [Zoom](#) [[Flyer](#)]



Anjali Khakharia, MS, MBBS, is a Senior Biostatistician, Emory School of Medicine, Dept. of Geriatric and Gerontology. She is a leading healthcare researcher with a focus on diabetes, COVID-19, and TB among veterans. Her work in health informatics and disease management has led to significant advancements in early disease detection and patient care. She is dedicated to improving healthcare outcomes for veterans.

Matthew Magee, PhD, MPH, is an Associate Professor, Hubert Dept. of Global Health, Rollins School of Public Health. Dr. Magee's research interests focus on the bi-directional relationship of non-communicable diseases and infectious diseases. Dr. Magee's work centers on the impact of diabetes mellitus and hyperglycemia on TB outcomes. His research also includes a focus on post-TB health trajectories of non-communicable disease.



July Publications

Atnafu A, **Wassie L**, Tilahun M, Girma S, Alemayehu M, Dereje A, Assefa G, Desta T, Agize H, Fisseha E, Mengistu Y, Desta K, **Bobosha K**. *Cytomorphological patterns and clinical features of presumptive tubercular lymphadenitis patients and their comparison with bacteriological detection methods: a cross-sectional study*. BMC Infect Dis. 2024;24(1):684. DOI: 10.1186/s12879-024-09587-4.

Auld SC, Sheshadri A, Alexander-Brett J, Aschner Y, Barczak AK, Basil M, Cohen KA, Dela Cruz C, McGroder C, Restrepo M, Ridge K, Schnapp L, Traber K, Wunderink R, Zhang D, Ziady A, Attia E, Carter J, Chalmers JD, Crothers K, Feldman C, Jones B, Kaminski N, Keane J, Lewinsohn D, Metersky M, Mizgerd JP, Morris A, Ramirez J, Samarasinghe AE, Staitieh BS, Stek C, Sun J, Evans SE. *Post-infectious Pulmonary Complications: Establishing Research Priorities to Advance the Field. An Official American Thoracic Society Workshop Report*. Ann Am Thorac Soc. 2024. DOI: 10.1513/AnnalsATS.202406-651ST.

Broger T, Marx FM, Theron G, Marais BJ, Nicol MP, Kerkhoff AD, Nathavitharana R, Huerga H, Gupta-Wright A, Kohli M, Nichols BE, Muyoyeta M, **Meintjes G**, Ruhwald M, Peeling RW, Pai NP, Pollock NR, Pai M, Cattamanchi A, Dowdy DW, Dewan P, Denkinger CM. *Diagnostic yield as an important metric for the evaluation of novel tuberculosis tests: rationale and guidance for future research*. Lancet Glob Health. 2024;12(7):e1184-e91. DOI: 10.1016/s2214-109x(24)00148-7.

Harrington KRV, **Gandhi NR**, **Shah NS**, **Naidoo K**, **Auld SC**, Andrews JR, Brust JCM, Lutchminarain K, Coe M, Willis F, **Campbell A**, Cohen T, Jenness SM, Waller LA. *The impact of COVID-19 national lockdowns on drug-resistant tuberculosis in KwaZulu-Natal, South Africa: A spatial analysis*. Ann Epidemiol. 2024;97:44-51. DOI: 10.1016/j.annepidem.2024.07.044.

Hermans SM, Akkerman OW, **Meintjes G**, Grobusch MP. *Post-tuberculosis treatment paradoxical reactions*. Infection. 2024. DOI: 10.1007/s15010-024-02310-0.

Khayumbi J, Sasser LE, McLaughlin TA, Muchiri B, Ongalo J, Tonui J, Ouma SG, **Campbell A**, Odhiambo FH, Kiprotich C, **Gandhi NR**, **Day CL**. *Active Tuberculosis Is Associated with Depletion of HIV-Specific CD4 and CD8 T Cells in People with HIV*. AIDS Res Hum Retroviruses. 2024;40(7):417-27. DOI: 10.1089/aid.2023.0088.

Köser CU, Miotto P, Ismail N, Anthony RM, Utpatel C, Merker M, Niemann S, Tahseen S, Rigouts L, Rodrigues C, **Omar SV**, Farhat MR, Antonenka U, Hoffmann H, Cirillo DM, Schön T. *A composite reference standard is needed for bedaquiline antimicrobial susceptibility testing for Mycobacterium tuberculosis complex*. Eur Respir J. 2024;64(1). DOI: 10.1183/13993003.00391-2024.

Marco MH, Ahmedov S, **Castro KG**. *The global impact of COVID-19 on tuberculosis: A thematic scoping review, 2020-2023*. PLOS Glob Public Health. 2024;4(7):e0003043. DOI: 10.1371/journal.pgph.0003043.

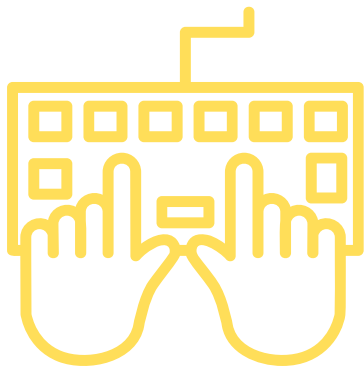
Meintjes G, **Maartens G**. *HIV-Associated Tuberculosis*. N Engl J Med. 2024;391(4):343-55. DOI: 10.1056/NEJMra2308181.

Omar SV, Louw G, Ismail F, Liu X, Ngcamu D, Gwala T, van der Meulen M, Joseph L. *Performance evaluation of the Xpert MTB/XDR test for the detection of drug resistance to Mycobacterium tuberculosis among people diagnosed with tuberculosis in South Africa.* J Clin Microbiol. 2024:e0022924. DOI: 10.1128/jcm.00229-24.

Salindri AD, Gujabidze M, **Kipiani M**, **Lomtadze N**, **Tukvadze N**, Avaliani Z, **Blumberg HM**, Kornfeld H, **Kempker RR**, **Magee MJ**. *Metformin reduces the risk of poor treatment outcomes among individuals with rifampicin-resistant tuberculosis and type-2 diabetes mellitus.* medRxiv. 2024. DOI: 10.1101/2024.07.12.24310348.

Wasserman S, Antilus-Sainte R, Abdelgawad N, Odjourian NM, Cristaldo M, Dougher M, Kaya F, Zimmerman M, Denti P, Gengenbacher M. *Rifabutin central nervous system concentrations in a rabbit model of tuberculous meningitis.* Antimicrob Agents Chemother. 2024;68(8):e0078324. DOI: 10.1128/aac.00783-24.

Xu AY, Velásquez GE, Zhang N, Chang VK, Phillips PP, Nahid P, Dorman SE, **Kurbatova EV**, Whitworth WC, Sizemore E, Bryant K, **Carr W**, Brown NE, Engle ML, Nhung NV, Nsubuga P, Diacon A, Dooley KE, Chaisson RE, Swindells S, Savic RM. *Pyrazinamide Safety, Efficacy, and Dosing for Treating Drug-Susceptible Pulmonary Tuberculosis: A Phase 3, Randomized, Controlled Clinical Trial.* Am J Respir Crit Care Med. 2024. DOI: 10.1164/rccm.202401-0165OC.



**Have items to include in
a future newsletter?**

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