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UGA Roadshow

On January 29th, several faculty from Emory visited the University of Georgia (UGA) to foster research collaborations and networking opportunities for students and faculty at each institution. Presentations by UGA TRAC investigators Liang Liu, Fred Quinn and Chris Whalen covered a broad scope of approaches to TB transmission studies, from novel Bayesian models and animal models through to clinical studies of transmission networks. UGA TRAC investigator Juliet Sekandi shared her study of Video Directly Observed Treatment and enhancing adherence through artificial intelligence (AI). Emory TRAC investigators Russell Kempker, Matt Magee, and Jeff Collins shared their research on target site pharmacokinetics and insights for treatment, synergy between TB and cardiometabolic diseases, and the role of 'omics'

approaches in TB research. Discussions to explore opportunities for collaboration between Emory's and UGA's NIH Fogarty International Center-funded D43 TB Research Training Programs in Ethiopia, the Country of Georgia, and Uganda were also fruitful. We are looking forward to building on the new connections made.

Tuberculosis Trials Consortium (TBTC) Study 33 Data Released to TB-PACTS Platform

Data from TBTC Study 33 entitled 'Adherence to Latent Tuberculosis Infection Treatment 3HP SAT Versus 3HP DOT (iAdhere)' is now available for public use through the TB-PACTS data platform. TB-PACTS is designed to catalyze and accelerate TB research by curating and standardizing TB clinical trial data and making this data publicly available. Researchers can access and analyze data in aggregate, or filter and view individual patient-level data from at least 26 clinical trials, including REMoxTB, RIFAQUIN and OFLUTUB. Additional trial data may become available in the future. **Data can be accessed at: [TB-PACTS | Critical Path Institute \(c-path.org\)](https://c-path.org)**



Publication Highlight



Russell Kempker, MD, MSc collaborated on an individual participant meta-analysis to assess the association of indicators of extensive disease and rifampin-resistant tuberculosis treatment outcomes. Findings from the meta-analysis were recently published in **Thorax** with co-authors from **Canada, Mexico, India, Brazil, The Netherlands, Estonia, Belarus, and France.**



Student Spotlight

Adenike McDonald is a past Environmental Specialist with the Ministry of Health of Jamaica and MPH graduate from the University of Georgia. Adenike is in her first-year of the PhD-Epidemiology and Biostatistics program at the University of Georgia College of Public Health and mentored by Emory-Georgia TRAC investigator **Dr. Juliet Sekandi**. Dr. Sekandi and Adenike, in collaboration with investigators at Makerere University's School of Public Health and Infectious Disease Institute, and the Kampala Capital City Authority recently published a study **assessing the usefulness, acceptability, and ease of use of video directly observed therapy among TB patients in Kampala Uganda** in the journal JMIR Formative Research. Adenike will present a poster entitled "Prevalence of TB-related symptoms and self-reported disability among adults post-TB treatment in Kampala, Uganda: A retrospective study" at the 2024 **Georgia CTSA Southeast Regional Clinical & Translational Science Conference**.



TRACcolades



Congratulations to 'new to TB' Emory investigator **Anant Madabhushi** and post-doc **Mohammadhadi Khorrami** on their collaborative R01 (**AI175555**) which is led by **Yingda Xie** at Rutgers New Jersey Medical School. The project is titled "Imaging signatures of early tuberculosis" and will use artificial intelligence (AI) and CT scans to characterize TB phenotypes. Computational imaging tools will be developed to characterize and diagnose individuals without TB symptoms who progress to sputum culture-positive or symptomatic TB disease. **This award is an exciting step into the AI and radiomics space for the Emory-Georgia TRAC!**



Congrats to **Ankita Garg**, Assistant Professor in the Department of Infectious Diseases in the College of Veterinary Medicine at UGA and **Ashish Sharma** Instructor at Emory School of Medicine on their collaborative pilot grant entitled "Epigenetic changes in T-Follicular Helper Cells Modulate Vaccine Response in People Living With HIV" from the **The Campbell Foundation**.



Upcoming Events

TB WORKS IN PROGRESS: "CLOSING TB GAPS FOR PEOPLE LIVING WITH HIV: TB GUIDANCE FOR ADAPTABLE PARTICIPANT-CENTERED SERVICE"

Joshua D. Doyle, MD, PhD, Global Tuberculosis Branch
Subhadra Nandakumar MS, PhD, International Lab
Branch, Division of Global HIV & TB, CDC
Friday February 23, 2024 9-10am
RRR 345 and Zoom (Register [here](#))



GRANT WRITING WORKSHOP FOR THE NIH R01 ON INTERNATIONAL RESEARCH IN INFECTIOUS DISEASES

Janet Gross, PhD & Russell Kempker, MD, MSc

Wednesday February 28, 2024 8-10am
Via Zoom

(More info: lisa.sharling@emory.edu)

Open to junior to mid-career faculty affiliated with our [Emory/Georgia TRAC international partner sites](#) and living in a low-income economy, lower-middle-income economy, or upper-middle-income economy.



VISITING PROFESSOR LECTURE: "DM AND TB INTERSECTION: THE LINKED EPIDEMICS"

Yosra Alkabab, MD, Assistant Professor of
Medicine, Division of Transplant Infectious
Disease at the Medical University of South
Carolina

Thursday February 29, 2024 12-1pm
CNR 6001 and Zoom (Register [here](#))



WORLD TB DAY EVENTS

Friday March 22 - Friday March 28



On the Bridge: Photo Booth, CDC's Faces From the Frontlines & more!

Book signing with Maria Smilios, author of The Black Angels

TB Trivia & Careers in TB Panel, Seminars, and more!



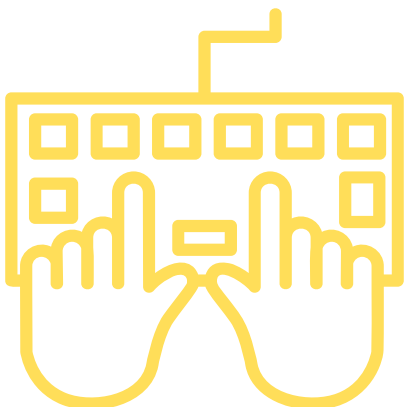
SCHEDULE OF EVENTS HERE!

Bulletin

Georgia CTSA Biostatistics, Epidemiology & Research Design (BERD) Pilot Grant Announcement

The BERD program is soliciting proposals to support novel methodological research in biostatistics, epidemiology, or health services research to advance clinical & translational research. Review criteria include quantitative methodological research to fill gaps, innovation, feasibility, and plans for dissemination & translation. Full-time faculty from Emory, Georgia Tech, Morehouse School of Medicine, and UGA are eligible and applications from new investigators are encouraged.

Deadline April 12, 2024 - More info and application [here!](#)



Have items to include in a future newsletter?

Email:

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Core Services Highlights



NIH Pre-submission Mock Study Section Review

1.

Express Your Interest by March 4

→

2.

Submit Your Draft by April 1

for review by TB experts from the relevant fields
3.

Receive Expert Feedback by early May


including written comments & open discussion review

Open to **tuberculosis** researchers affiliated with Emory/Georgia TRAC partner institutions who are planning to submit a proposal to NIH by the June 5, 2024 deadline.


We encourage early-stage investigators to apply!




Accelerator Awards



Fill funding gaps to overcome barriers for critical TB research



Open to Emory/Georgia TRAC partner institutions




Up to \$4,000



Rolling application deadline



Funding decision within 10 weeks



High-performance computing, core services, reagent and supplies costs

EXAMPLE EXAMPLE

January Publications

Campbell JR, Brode SK, Barry P, Bastos ML, Bonnet M, Guglielmetti L, **Kempker R**, Klimuk D, Laniado Laborín R, Milanov V, Singla R, Skrahina A, Trajman A, van der Werf TS, Viiklepp P, Menzies D. Association of indicators of extensive disease and rifampin-resistant tuberculosis treatment outcomes: an individual participant data meta-analysis. *Thorax*. 2024;79(2):169-78. DOI: 10.1136/thorax-2023-220249.

Dawood H, Yende-Zuma N, Singh U, Moodley MC, Ramruthan J, **Naidoo K**. Incidence and prevalence of hypertension among HIV-TB co-infected participants accessing treatment: A five-year prospective cohort analysis. *PLoS One*. 2024;19(1):e0297224. DOI: 10.1371/journal.pone.0297224.

Kim Y, Lewis MB, Hwang J, Wang Z, Gupta R, Liu Y, Gupta T, Barber JP, Singamaneni S, **Quinn F**, Prausnitz MR. Microneedle patch-based enzyme-linked immunosorbent assay to quantify protein biomarkers of tuberculosis. *Biomed Microdevices*. 2024;26(1):15. DOI: 10.1007/s10544-024-00694-2.

Marshall KE, Free RJ, Filardo TD, **Schwartz NG**, Hernandez-Romieu AC, Thacker TC, Lehman KA, Annambhotla P, Dupree PB, Glowicz JB, Scarpita AM, Brubaker SA, Czaja CA, Basavaraju SV. Incomplete tissue product tracing during an investigation of a tissue-derived tuberculosis outbreak. *Am J Transplant*. 2024;24(1):115-22. DOI: 10.1016/j.ajt.2023.09.005.

Sekandi JN, Quach T, Olum R, Nakkonde D, Farist L, Obiekwe R, **Zalwango S**, Buregyeya E. Stigma and Associated Sex Disparities Among Patients with Tuberculosis in Uganda: A Cross-Sectional Study. *Res Sq*. 2024. DOI: 10.21203/rs.3.rs-3794900/v1.

Tomalka J, Sharma A, Smith AGC, **Avaliani T**, Gujabidze M, Bakuradze T, Sabanadze S, Jones DP, **Avaliani Z**, **Kipiani M**, **Kempker RR**, **Collins JM**. Combined cerebrospinal fluid metabolomic and cytokine profiling in tuberculosis meningitis reveals robust and prolonged changes in immunometabolic networks. *Tuberculosis (Edinb)*. 2024;144:102462. DOI: 10.1016/j.tube.2023.102462.

Wortham JM, **Haddad MB**, Stewart RJ, Annambhotla P, Basavaraju SV, Nabity SA, Griffin IS, McDonald E, Beshearse EM, Grossman MK, Schildknecht KR, Calvet HM *et al*. Second Nationwide Tuberculosis Outbreak Caused by Bone Allografts Containing Live Cells - United States, 2023. *MMWR Morb Mortal Wkly Rep*. 2024;72(5253):1385-9. DOI: 10.15585/mmwr.mm725253a1.

Nimmo C, Bionghi N, Cummings MJ, Perumal R, Hopson M, Al Jubaer S, **Naidoo K**, Wolf A, Mathema B, Larsen MH, O'Donnell M. Opportunities and limitations of genomics for diagnosing bedaquiline-resistant tuberculosis: a systematic review and individual isolate meta-analysis. *Lancet Microbe*. 2024. DOI: 10.1016/s2666-5247(23)00317-8.

Zhang C, O'Connor S, Smith-Jeffcoat SE, Rodriguez DF, Guo H, Hao L, Chen H, **Sun Y**, Li Y, Xu J, Chen L, Xia L, Yang X, Date A, Cheng J. Implementing a continuous quality-improvement framework for tuberculosis infection prevention and control in healthcare facilities in China, 2017-2019. *Infect Control Hosp Epidemiol*. 2024:1-7. DOI: 10.1017/ice.2023.287.

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