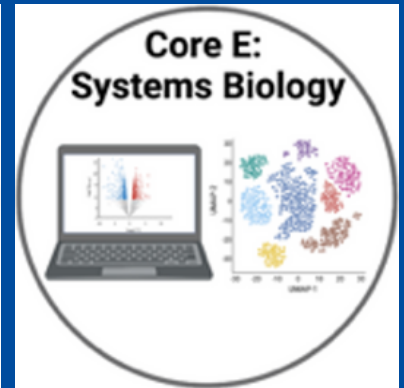
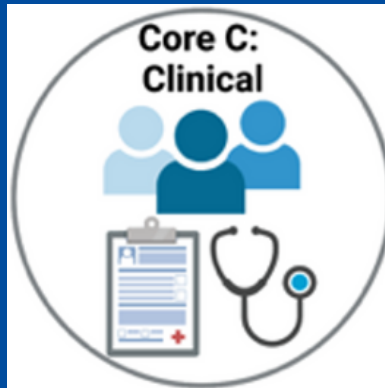


TRAC

Tuberculosis Research Advancement Center
Emory/Georgia

Newsletter

Science Cores



IN THIS ISSUE

TRAC SCIENTIFIC CORES

CREATIVE RESILIENCE

**RESEARCH IN ACTION
AWARDS**

**PUBLICATION
HIGHLIGHT**

TRACCOLADES

UPCOMING EVENTS

BULLETIN BOARD

RECENT PUBLICATIONS

The Emory/Georgia TRAC has three scientific cores: Clinical and Population Sciences (CPS), Basic and Translational Science (BTS), and Bioinformatics and Integrated Systems Biology (BISB). In addition to providing workshops and trainings, our cores offer services and consults which can be requested by trainees and investigators at [Emory/Georgia TRAC-affiliated institutions](#) through our [website](#).

The overarching goal of the [CPS Core](#) is to catalyze rigorous and impactful clinical and epidemiologic research along the full spectrum of TB exposure, infection, and disease by building awareness of TRAC clinical research sites, facilitating connections between investigators and

CPS Core Co-Directors



**Sarita Shah, MD,
MPH**



**Chris Whalen,
MD, MS**



**David Benkeser,
PhD**

Clinical Core faculty based on research interests. Services include consults in study design and IRB protocol development; exemplar statistical analysis plans (SAP) and data collection tools; reproducible coding practices; code verification; table/figure shells for data and safety monitoring board reporting; basic statistical methods; data visualization; and guidance on interpretation and [more](#).

BTS Core Co-Directors and Staff



**Cheryl Day,
PhD**



**Fred Quinn,
PhD**



**Arijita Subuddhi,
PhD - Staff
Scientist**

The BTS Core provides expertise and resources to facilitate Emory/Georgia TRAC investigator-led studies of mycobacterial pathogenesis, transmission, and host immunity in both human and animal models of Mycobacterium tuberculosis (Mtb) infection. The BTS core provides consults on the design of experimental lab assays for TRAC Pilot Grant applications and awards, as well as other funding applications. The core is equipped to help train investigators and staff in areas such as biosafety, the collection and handling of Mtb cultures, Mtb infection in animal models, development and execution of lab assays and the design of Standard Operating Procedures (SOPs). The core also manages a biorepository of human and animal specimens, as well as Mtb strains with the ultimate goal of allowing Emory/Georgia TRAC investigators to request access to archived samples to create application-generating data. Investigators may also request to use the biorepository for the temporary of samples for active studies.

Are you unsure of what type of ‘-omics’ tools you need?

The BISB Core serves to facilitate access to a wide array of ‘-omics’ technologies for specific experimental designs. Using established computational pipelines, the core provides training to new investigators on methods in high-dimensional data analysis and data integration. The BISB Core is here to advise you on the study design and ‘-omics’ tools that will best position you to answer your study question. As a ‘concierge’ service, the core can also help you find the university core services that can perform the assays you need for your study. ***Do you have or expect to have a large ‘-omics’ data set, but need assistance with data analysis?*** The Core can assist in the analysis of your ‘-omics’ data and help advance your project toward publication.

BISB Core Co-Directors



**Jeffrey Collins,
MD, MSCR**



**Ashish Sharma,
PhD**

ATLANTA OPERA'S BOHEME PROJECT AND CREATIVE RESILIENCE

The Boheme Project convened a panel discussion Saturday September 21 at Rollins School of Public Health, "***Creative Resilience: how three centuries of pandemics influenced the arts.***" This Community Conversation, recorded and linked [here](#), followed singing of two arias by Atlanta Opera's "Rodolfo" and "Musetta," Kameron Loppreore and Cadie J. Bryan, accompanied by Nyle Matsuoka. The performers spoke about Covid's disruption of their lives and how they and other artists responded. Panelists then discussed the power of stories and the three pandemics of tuberculosis, HIV/AIDS, and Covid-19, as they peaked and as they persist.

Atlanta Opera presented a traditional La Boheme, a classic story of tuberculosis early in the 19th century, last season. This season, from September 18-October 6 at Pullman Yards, Atlanta Opera presented [La Boheme in the age of Covid](#) and [Rent](#), a musical theater version of La



Boheme updated to the AIDS pandemic. Atlanta Opera director Tomer Zvulin and Emory University's **Dr. Carlos del Rio** have collaborated since early in the Covid pandemic to continue performances, in order to support both the artists and their communities. Atlanta Opera dedicated these performances to health care workers.

Article submitted by Stefan Goldberg, MD.



On October 17, Treatment Action Group is hosting its annual [Research in Action Awards event](#). Stories, as in the Boheme Project, help audiences care about people suffering and dying

from diseases like TB and HIV/AIDS and support political will to devote the government-level resources needed to eliminate them. Treatment Action Group strengthens the intersection between science and policy with community involvement. Donation and free live streaming registration links to this event are [here](#).

As stated in its [mission](#), "Treatment Action Group (TAG) is an independent, activist, and community-based research and policy think tank ... working to expand and accelerate vital research and effective community engagement with research and policy institutions for an end

to the HIV, TB, and HCV pandemics.” TAG has produced globally influential annual reports, **Tuberculosis Research Funding Trends**, annually since 2006. Article submitted by Stefan Goldberg, MD.

Publication Highlight



Congratulations to **Matthew Magee, PhD, MPH**, Associate Professor, Hubert Dept. of Global Health, Rollins School of Public Health and team for the recent publication in IJTLD OPEN journal entitled “**Cavitary lung lesions and quality of life after TB**”. In this prospective cohort study, post-TB quality of life (QoL) scores were measured at 6 and 12 months after treatment completion to explore cavitary lung lesions and QoL. The study found that the presence of cavitary lung lesions at the end of TB treatment may impact improvements in bodily pain in the first year after treatment. At treatment completion, participants reported the highest QoL scores in the domain of physical functioning, followed by social functioning, bodily pain, and role limitations. At both 6 and 12 months, the domains with the highest proportion of participants experiencing improvements were emotional wellbeing, improved at 6 months and at 12 months; and health perceptions, improved at 6 months and 12 months.

TRACcolades

Congratulations to **Cheryl L. Day, PhD**, Emory School of Medicine and Co-Director of the TRAC Basic and Translational Science Core on her promotion to Professor of Microbiology and Immunology with tenure, effective September 1, 2025! This significant achievement reflects Dr. Day’s dedication and service as a scholar, educator, and leader at Emory University and beyond.



Congrats!

Upcoming Events

TB WORKS IN PROGRESS SEMINAR: CD40-INDUCED MODULATION OF TB IMMUNITY THROUGH THE LENS OF THE CD155-TIGIT RECEPTOR AXIS

UUU Friday October 18, 9-10 am
+ RSPH CNR 3001 and [Zoom](#) [[Flyer](#)]



Louis Hopkins, an ARCS Foundation Herz Global Impact Scholar in the Immunology and Molecular Pathogenesis PhD program at Emory University, studies immune cell crosstalk and inhibitory pathways to assess their contribution to tuberculosis disease progression at the Emory Vaccine Center under Dr. Jyothi Rengarajan. His dissertation focuses on how CD40 engagement on antigen presenting cells influences T cell responses via the CD155/TIGIT/CD226 receptor axis.

PUBLIC DATABASES FOR TB RESEARCH LECTURE SERIES: CREATING A GLOBAL INDIVIDUAL PARTICIPANT DATA PLATFORM FOR TUBERCULOSIS TREATMENT (TB-IPD)

UUU Tuesday October 22, 12-1pm
+ RSPH CNR 3001 and [Zoom](#) [[Flyer](#)]

Dr. Ruth Goodall is a principal research fellow and Head of Statistics at the MRC Clinical Trials Unit, Institute of Clinical Trials and Methodology, University College London (UCL). She has worked for >25 years as a statistician in infectious disease research, focusing on HIV infection and TB. Her work has spanned Phase I-III clinical trials of treatment strategies, preventative vaccines and immunotherapy, and observational studies focusing on the evolution of drug resistance in adults and treatment responses in children and adolescents. In addition to serving as the trial statistician for the STREAM stage 2 trial, Dr. Goodall is the Institute lead for the WHO TB-IPD platform, a data curation project for TB treatment trials and observational datasets supported by the WHO Global TB Programme and maintained by UCL.



SPECIAL TB WORKS IN PROGRESS SEMINAR: UNION MEETING PRACTICE TALKS

UUU
+ **Friday November 1, 8:30-10:30am**
RSPH CNR 3001 and [Zoom](#) [Flyer]

Time (EST)	Speaker Name	Presentation Title
8:30 AM	Glyzelle Lagason	Undernutrition assessment, nutrient uptake of TB patients, and feasibility of NACS in outpatient TB clinics in the Philippines
8:45 AM	Sosina Ayalew	Multi-gene Plasma Cell-free Mycobacterium tuberculosis Assay: An Innovative Approach for Enhanced Tuberculosis Detection
9:00 AM	Tesemma Sileshi	Pharmacokinetics of isoniazid and rifampicin and predictors in Ethiopian tuberculosis patients
9:15 AM	Ana Tsutsunava	Linking delamanid and pretomanid minimum inhibitory concentrations with genetic mutations in multidrug-resistant and Neonatal BCG vaccination does not prevent M. tuberculosis transmission within households
9:30 AM	Kristin Nelson	Social networks of children and adolescents: implications for when and where they are infected with Mycobacterium tuberculosis
9:45 AM	Kristin Nelson	Bedaquiline and clofazimine resistance following an interruption in treatment for rifampicin-resistant TB
10:00AM	Rina Liang	A 4-metabolite signature to diagnose pulmonary TB in adults and monitor treatment response

A series of short presentations by Emory/ Georgia TRAC trainees and faculty as a practice for their presentations at [The Union World Conference on Lung Health 2024](#) in Bali, Indonesia.



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

Bulletin Board

Conference Travel Accelerator Award

We are excited to support one Emory/Georgia TRAC early-stage investigator (PhD student, post-doc, fellow or junior faculty) to attend the 3rd International Post-tuberculosis Symposium in Cape Town through an Accelerator Travel Award of up to \$4,000. Please note that faculty with independent TB funding (NIH R01 or R01 equivalent) are not eligible to apply. The full request for applications can be found [here](#). Applications to be submitted through the [Application Portal](#) by **November 18, 2024**.



3rd INTERNATIONAL

POST-TUBERCULOSIS

SYMPOSIUM 2025

CHARTING THE COURSE

APRIL 14 - 16 | STIAS INSTITUTE, STELLENBOSCH, CAPE TOWN



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](#)!

KL2 CLINICAL & TRANSLATIONAL RESEARCH CAREER DEVELOPMENT PROGRAM FOR JUNIOR FACULTY



The goal of the [Georgia Clinical & Translational Science Alliance \(Georgia CTSA\) KL2 Program](#) is to support and enhance career development for junior faculty (MD, PhD, MD/PhD, PharmD) committed to a career in clinical and translational research (CTR) and clinical and translational science (CTS). The Georgia CTSA KL2 Program is committed to assisting junior faculty at partner institutions to become independent, established, and ethical CTR and CTS investigators.

The KL2 program provides innovative personalized didactic and mentored research training for junior faculty. Didactic research training is provided through the Master of Science in Clinical Research, the Certificate Program in Translational Science, or a menu option of selected courses. Mentored research training occurs under the direction of an established, federally funded clinical and/or translational science investigator at one of the Georgia CTSA institutions. Support in the Georgia CTSA KL2 Program will be provided for up to two years. [Learn more at two upcoming workshops - info here.](#)

JOHN HOPKINS UNIVERSITY POST- DOCTORAL FELLOWSHIP IN TB POPULATION-LEVEL MODELING



JOHNS HOPKINS
UNIVERSITY

Dr. Emily Kendall at Johns Hopkins University is recruiting a post-doc in population-level modeling to improve TB detection and treatment. The post-doc will be joining a TB research group that spans mathematical modeling, field epidemiology and clinical studies, and a variety of quantitative and computational methods, embedded within a broader team focused on using modeling and quantitative analysis to guide policy around TB, HIV, and STIs. Interested applicants should submit the following to Dr. Emily Kendall ([**ekendall@jhmi.edu**](mailto:ekendall@jhmi.edu)): a curriculum vitae; a cover letter describing relevant research experience, research interests, and career goals; and names and contact information for three references. Applications will be reviewed on a rolling basis.

U.S.-SOUTH AFRICA PROGRAM FOR COLLABORATIVE BIOMEDICAL RESEARCH – PHASE 3



R01 research project grant request for funding (RFA) [RFA-AI-24-023](#)

The purpose of this Notice of Funding Opportunity (NOFO) is to support research projects under Phase 3 of the U.S.-South Africa Program for Collaborative Biomedical Research. Research areas supported under this program include **HIV/AIDS, HIV/AIDS co-morbidities and co-infections**, HIV/AIDS-associated implementation science, and HIV/AIDS-associated data science. The hallmark of the U.S.-South Africa program is the development of collaborative partnerships between South African investigators and United States (U.S.) investigators. Through international collaboration, this research will advance scientific discoveries, promote sharing of technologies and approaches, and serve local public health needs and priorities in support of global HIV/AIDS research. The deadline is March 12, 2025. **The RFA can be found [here](#).**

HALTING TUBERCULOSIS (TB) TRANSMISSION



National Institute of Allergy and Infectious Diseases

[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](#).**

ADMINISTRATIVE SUPPLEMENTS TO EXISTING NIH GRANTS AND COOPERATIVE AGREEMENTS



These supplements aim to address unforeseen costs that fall within the scope of the approved award, which were not anticipated when submitting new or renewal applications or grant progress reports for non-competing continuation support. Applications for administrative supplements are considered prior approval requests (as described in [Section 8.1.2.11 of the NIH Grants Policy Statement](#)) and will be routed directly to the Grants Management Officer of the parent award. For more details, please refer to the **RFA [here](#)**.

September Publications

Adekoya N, Chang MH, **Wortham J**, Truman BI. *Disparities in Rates of Death From HIV or Tuberculosis Before Age 65 Years, by Race, Ethnicity, and Sex, United States, 2011-2020*. Public Health Rep. 2024;139(5):557-65. DOI: 10.1177/00333549231213328.

Auld SC, Sheshadri A, Alexander-Brett J, Aschner Y, Barczak AK, Basil MC, Cohen KA, Dela Cruz C, McGroder C, Restrepo MI, Ridge KM, Schnapp LM, Traber K, Wunderink RG, Zhang D, Ziady A, Attia EF, Carter J, Chalmers JD, Crothers K, Feldman C, Jones BE, Kaminski N, Keane J, Lewinsohn D, Metersky M, Mizgerd JP, Morris A, Ramirez J, Samarasinghe AE, **Staitieh BS**, Stek C, Sun J, Evans SE. *Postinfectious Pulmonary Complications: Establishing Research Priorities to Advance the Field: An Official American Thoracic Society Workshop Report*. Ann Am Thorac Soc. 2024;21(9):1219-37. DOI: 10.1513/AnnalsATS.202406-651ST.

Baye N, Atnafu A, Girma S, Belete Y, Yimam S, Getachew B, Ayalew S, **Bobosha K**, Chanyalew Z, Gize A, Chaniyalew M. *Evaluation of molecular and bacteriological detection methods performed on the formalin-fixed paraffin-embedded biopsy samples collected from endometrial and lymph node tuberculosis suspected patients*. BMC Infect Dis. 2024;24(1):1021. DOI: 10.1186/s12879-024-09908-7.

Buziashvili M, Djibuti M, **Tukvadze N**, DeHovitz J, Baliashvili D. *Incidence Rate and Risk Factors for Developing Active Tuberculosis Among People Living With HIV in Georgia 2019-2020 Cohort*. Open Forum Infect Dis. 2024;11(9):ofae466. DOI: 10.1093/ofid/ofae466.

Fabiane SM, Chiang CY, Meredith SK, Gurumurthy M, **Bayissa A**, Nunn AJ, Goodall RL. *Comparative Efficacy and Safety of Moxifloxacin and Levofloxacin in a Short Standardised Rifampicin Resistant TB Regimen: A STREAM 2 Secondary Analysis*. Trop Med Infect Dis. 2024;9(9). DOI: 10.3390/tropicalmed9090211.

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.

Louw EH, Van Heerden JA, Kalla IS, Maarman GJ, Nxumalo Z, Thienemann F, Huaman MA, **Magee M**, Allwood BA. *Scoping review of post-TB pulmonary vascular disease: Proceedings from the 2nd International Post-Tuberculosis Symposium*. Pulm Circ. 2024;14(3):e12424. DOI: 10.1002/pul2.12424.

Loveday M, **Gandhi NR**, Khan PY, Theron G, Hlangu S, Holloway K, Chotoo S, Singh N, Marais BJ. *Critical assessment of infants born to mothers with drug resistant tuberculosis*. EClinicalMedicine. 2024;76:102821. DOI: 10.1016/j.eclinm.2024.102821.

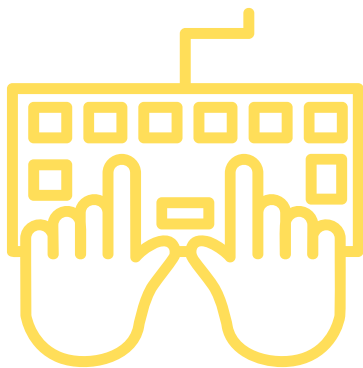
Naidoo K, Perumal R, Cox H, Mathema B, **Loveday M**, Ismail N, **Omar SV**, Georghiou SB, Daftary A, O'Donnell M, Ndjeka N. *The epidemiology, transmission, diagnosis, and management of drug-resistant tuberculosis-lessons from the South African experience*. Lancet Infect Dis. 2024;24(9):e559-e75. DOI: 10.1016/s1473-3099(24)00144-0.

Subedi D, Parajuli BR, Bista N, Rauniyar S, Banstola A, **Sharma A**, Gurung M. *Sarcoidosis in a young adult: A rare sequelae of COVID-19 infection*. Clin Case Rep. 2024;12(9):e9445. DOI: 10.1002/ccr3.9445.

Verboven L, Callens S, Black J, **Maartens G**, Dooley KE, Potgieter S, Cartuyvels R, Laukens K, Warren RM, Van Rie A. *A machine-learning based model for automated recommendation of individualized treatment of rifampicin-resistant tuberculosis*. PLoS One. 2024;19(9):e0306101. DOI: 10.1371/journal.pone.0306101.

Walker NF, Schutz C, Ward A, Barr D, Opondo C, Shey M, Elkington PT, Wilkinson KA, Wilkinson RJ, **Meintjes G**. *Elevated Plasma Matrix Metalloproteinases Are Associated With Mycobacterium tuberculosis Bloodstream Infection and Mortality in Human Immunodeficiency Virus-Associated Tuberculosis*. J Infect Dis. 2024. DOI: 10.1093/infdis/jiae296.

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. *Advancing the chemotherapy of tuberculous meningitis: a consensus view*. Lancet Infect Dis. 2024. DOI: 10.1016/s1473-3099(24)00512-7.



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

Email:

lisa.sharling@emory.edu

CITE THE TRAC
P30A1168386



@EMORYGATRAC

WEBSITE
TB.EMORY.EDU