# Tuberculosis Research Advancement Center Emory/Georgia





IN THIS ISSUE

THE UNION MEETING 2024

**STORIES OF RESILIENCE** 

**TRACCOLADES** 

PUBLICATION HIGHLIGHTS

**UPCOMING EVENTS** 

**BULLETIN BOARD** 

**RECENT PUBLICATIONS** 

Conference on Lung Health in Bali, Indonesia, from
November 12-16. Member presentations included research
on drug pharmacology, social network analysis, biomarker
signatures of disease, HIV co-infection's influence on the
immune response to TB, TB detection tools, and the role of
undernutrition. Many thanks to TRAC Developmental Core
leaders Henry Blumberg, MD and Russell Kempker, MD,
MSc for organizing a TRAC dinner (pictured above). We
are also excited that Glyzelle Anne Lagason, MD (De La
Salle Health Sciences Institute, Philippines) presented her
collabortive TRAC-G pilot award titled "Undernutrition
assessment, nutrient uptake of TB patients, and feasibility

of NACS in outpatient
TB clinics in the
Philippines," with
mentorship from Peter
Cegielski MD, MPH
(Emory) and Maricelle
Gler, MD (Philippines).



Glyzelle Anne Lagason, MD presenting her TRAC-G pilot award project.

### In Their Words: Stories of Resilience from TB Survivors

By Sebrina Mohammed, MPH(c) 2025

Through partnership with We Are TB, The National TB Coalition of America (NTCA), and Stop TB USA the Centers for Disease Control and Prevention's (CDC's) Division of Tuberculosis Elimination recently shared seven new stories as part of their ongoing TB Survivor Personal Stories series. The new stories feature six



TB survivors discussing their experiences with TB disease. You can view the videos and print stories on <u>CDC's TB Personal Stories website</u>. The stories illustrate the difficulties and triumphs of living with tuberculosis. This collection of narratives highlights the different experiences of TB survivors, each with their unique journey to recovery.

#### Facing Diagnosis: Reactions and Emotions

For many survivors, being diagnosed with tuberculosis sparked a range of feelings, from relief to fear. Preeni was "relieved" after being misdiagnosed with lymphoma and cat scratch disease. Taylor, however, was diagnosed with pneumonia, HIV, and tuberculosis. Reflecting on that moment, she stated, "I remember thinking, 'This is it, I'm going to die.'"Kate, who was diagnosed while pregnant, emphasized the increased stress, adding, "It was very scary, not just for me but for my baby."

#### Advice for People with TB

One piece of advice Renee shares with individuals recently diagnosed with TB is to not be "afraid to ask more questions". She emphasizes the importance of self-advocacy, saying "educate yourself to self advocate."

#### **Challenges with Treatment**

Greg, who battled multi-drug-resistant tuberculosis, knows firsthand how difficult TB treatment can be. He explained the hardest part of TB treatment was "taking all those pills." "In my case, It was like, almost 24, 34 pills before they even noticed that I was multi-resistant."

#### **Experiences with Stigma**

Stigma remains a serious challenge for tuberculosis survivors. Greg described his difficult experience after TB diagnosis: "When I came back from the hospital, I had to actually stay in a shelter 'cause none of my family wanted to take me in. They were afraid." He lived in a shelter for over a year before someone offered him a place to stay, a reminder of the difficulties stigma creates.



#### Connecting with other TB survivors

Despite the challenges, survivors emphasize perseverance. As Renee put it, "When I found the CDC videos of people who had also experienced what I was going through, they resonated with me. They made me realize that I could continue taking the meds and that I would feel better one day. It gave me hope."

#### Why they want to share their story

Preeni shares her story to inspire others and raise awareness about TB: "I want to share my story today because I want to bring awareness to TB... and we need to fight TB." Survivors like Preeni showed how story telling can reduce stigma, encourage adherence to treatments, and strengthen the fight against tuberculosis.

These survivors' experiences emphasize the challenges of tuberculosis, as well as the strength and determination needed to overcome them. Their voices remind us that tuberculosis is more than just a medical issue; it is a human experience. By sharing their story, survivors give others hope and raise awareness. The stories can also be helpful resources for patient education, community outreach. You can find more inspiring stories from TB survivors <a href="https://example.com/here.">here.</a>

## **TRACcolades**



James C.M.
Brust, Albert
Einstein
College of
Medicine



Graeme Meintjes, University of Cape Town



Sean
Wasserman,
St. George's,
University of
London



Neel Gandhi, Rollins School of Public Health, Emory University



Gary Maartens, University of Cape Town

Congratulations to James C.M. Brust, Graeme Meintjes, Sean Wasserman,

Neel Gandhi, and Gary Maartens on being awarded a grant for a new R01. The Grant is titled "Therapeutic drug monitoring for linezolid in the treatment of rifampin-resistant tuberculosis: a pragmatic randomized controlled trial (THERMOL study)".



## **Publication Highlights**



Congratulations to Jeffrey Collins, MD, MPH, MSc, Russell Kempker, MD, MSc and team on acceptance of their manuscript in PLoS One. The manuscript titled "Pharmacometabolomics in TB Meningitis – understanding the pharmacokinetic, metabolic, and immune factors associated with anti-TB drug concentrations in cerebrospinal fluid" used a pharmacometabolomic approach to measure drug concentrations and to evaluate predictors of cerebrospinal (CSF) drug penetration. The study found that inter-individual variability in drug concentrations in TB meningitis patients

was only partially explained by differences in serum drug concentrations and not associated with concentrations of cytokines and chemokines in the CSF. The paper is available as a preprint **here**.

Congratulations to Matthew Magee PhD, MPH, Sara Auld MD, Mary Rhee MD, Lawrence S. Phillips MD, and Anjali Khakharia, MS, MBBS on their publication titled, "Tuberculosis and increased incidence of cardiovascular disease: Cohort study using US and UK health records" in Clinical Infectious Diseases. The study assessed cardiovascular disease (CVD) incidence before and after TB diagnosis using medical records from national databases in the US (Veterans Affairs) and the United Kingdom (Clinical Practice Research Datalink) from 2000-2020. Key methodological strengths included controlling for pre-existing CVD risk factors and following people before and after TB diagnosis, thus increasing the ability to infer that CVD incidence was likely related to TB. The study found the incidence of CVD was approximately 3 times higher among people with TB compared to those without TB, particularly within a few months before TB diagnosis.





## **Bulletin Board**

## OPEN FACULTY SEARCH EMORY UNIVERSITY, ROLLINS SCHOOL OF PUBLIC HEALTH

ROLLINS SCHOOL OF PUBLIC HEALTH

We are pleased to announce an open search for new TB faculty at Emory. We are looking to hire a new TB faculty member into the Department of Epidemiology at the Rollins School of Public Health, in conjunction with the <a href="Emory/Georgia TB Research Advancement Center">Emory/Georgia TB Research Advancement Center (TRAC)</a>. The position is open to applicants of any rank (Assistant Professor, Associate Professor, Professor). The job posting can be found <a href="here">here</a>.

Applications can be submitted at <u>this portal</u> or by sending a letter of interest and CV to the search committee c/o Kiara Banks, <u>kiara.latimer.banks@emory.edu</u>.

## 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 and clinical and translational science. The KL2 program provides innovative personalized didactic and mentored research training. Junior faculty from a wide variety of disciplines at the Georgia CTSA partner institutions - Emory University, Morehouse School of Medicine, Georgia Tech, and the University of Georgia - are eligible to apply. More info <a href="here">here</a> and full announcement <a href="here">here</a>.



Have items to include in a future newsletter?

Email:

lisa.sharling@emory.edu



## **Upcoming Events**

# TB WORKS IN PROGRESS SEMINAR: IDENTIFYING TUBERCULOSIS BIOMARKERS AND HOST IMMUNE PROTECTIVE MECHANISMS AGAINST MYCOBACTERIUM TUBERCULOSIS ACROSS THE DISEASE SPECTRUM



## Friday January 10, 2024, 10-11 am CNR Room 2001 and Zoom



Dr. Salgame is a Professor in the Department of Medicine at Rutgers University, Co-Director of the MD/PhD Program, and Associate Director of the Public Health Research Institute. Her research focuses on immunity to tuberculosis, the impact of Mycobacterium tuberculosis strain variation on transmission and infection, and identifying biomarkers across the disease spectrum using human and animal models. She collaborates widely with researchers in the U.S, Brazil, India, and Uganda. Dr. Salgame is an Editor for Infection and Immunity and an Associate Editor for PLOS Pathogens, and she also manages a range of science teaching and training programs.

### **November Publications**

Critchley JA, Limb ES, **Khakharia A**, Carey IM, **Auld SC**, DeWilde S, Harris T, Phillips LS, Cook DG, Rhee MK, Chaudhry UAR, Bowen L, **Magee MJ**. Tuberculosis and increased incidence of cardiovascular disease: Cohort study using US and UK health records. Clin Infect Dis. 2024. DOI: 10.1093/cid/ciae538.

Gorvetzian S, Pacheco AG, Anderson E, **Ray SM**, **Schechter M**C. Mortality Rates after Tuberculosis Treatment, Georgia, USA, 2008–2019. Emerg Infect Dis. 2024;30(11):2261–70. DOI: 10.3201/eid3011.240329.

Kadota JL, Musinguzi A, Aschmann HE, Akello L, Welishe F, Nakimuli J, Berger CA, **Kiwanuka N**, Phillips PPJ, Katamba A, Dowdy DW, Cattamanchi A, Semitala FC. Adverse Events Reported During Weekly Isoniazid-Rifapentine (3HP) Tuberculosis Preventive Treatment Among People With Human Immunodeficiency Virus in Uganda. Open Forum Infect Dis. 2024;11(11):ofae667. DOI: 10.1093/ofid/ofae667.



**Naidoo K**, Naidoo A, Abimiku AG, Tiemersma EW, Gebhard A, Hermans SM, Sloan DJ, Ruhwald M, Georghiou SB, Okpokoro E, Agbaje A, Yae K, Tollera G, Moga S, Feyt H, Kachoka T, Letsoalo MP, Cabibbe AM, Perumal R, Shunmugam L, Cirillo DM, Foraida S, Sabiiti W, Ntinginya NE, Mtafya B, Bedru A, Gillespie SH. Triage test for all-oral drug-resistant tuberculosis (DR-TB) regimen: a phase IV study to assess effectiveness, feasibility, acceptability and cost-effectiveness of the Xpert MTB/XDR assay for rapid triage and treatment of DR-TB. BMJ Open. 2024;14(11):e084722. DOI: 10.1136/bmjopen-2024-084722.

**Naidoo K**, Perumal R. First data of a quabodepistat containing novel regimen for drug-susceptible tuberculosis. Lancet Infect Dis. 2024. DOI: 10.1016/s1473-3099(24)00653-4.

Salazar-Austin N, **Cranmer LM**. The underestimated burden of tuberculosis in children. Lancet Child Adolesc Health. 2024;8(12):845-7. DOI: 10.1016/s2352-4642(24)00297-9.



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