

### Newsletter



### MANAGEMENT OF TUBERCULOSIS AND **COMORBIDITIES – UNDERNUTRITION** World Health GUIDELINE DEVELOPMENT GROUP

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Dr. Peter Cegielski, Professor of Epidemiology, Emory Rollins School of Public Health recently joined the WHO Guideline Development Group focusing on TB and undernutrition. In the 1990s.



Dr. Cegielski delved into this intersection through his MPH thesis looking at TB and nutrition in the United States. His work helped spur increased interest and research to reveal undernutrition is responsible for more TB cases globally (in terms of population attributable risk) than any other known risk factor, including HIV, diabetes mellitus, and smoking. The WHO Global Tuberculosis Programme is preparing to revise the 2013 Guidelines for managing TB and undernutrition which address nutritional care and support for TB patients. Th guidelines will provide updated recommendations grounded in a thorough

review of the most recent research, including incorporating new research regarding undernutrition in both individuals with TB and their contacts. We look forward to sharing the updated guidelines in a future Newsletter.

### **Publication Highlight**

Matthew Magee, Associate Professor,
Departments of Global Health and
Epidemiology, Emory Rollins School of Public
Health and Dr. Magee's former PhD student
Argita Salindri (currently a Post Doctoral
scholar with co-author Dr. Jason Andrews at
Standford University's School of Medicine)



recently published a paper in the BMJ Open journal entitled "Tuberculosis infection and hypertension: prevalence estimates from the US National Health and Nutrition Examination Survey". The study uses data representative of the adult US population to explore the relationship between TB infection and hypertension, an intermediate of cardiovascular diseases for which TB infection is known to be associated with increased risk. The co-authors of the paper include Dr. Sara Auld, Associate Professor, Division of Infectious Diseases Emory School of Medicine, and new collaborators, Dr. Moises Huaman, University of Cincinnati (UC) and Dr. Elaine Urbina, UC Children's Hospital.

### Job Posting

<u>Cheryl Day's laboratory</u> is recruiting a Senior Research Specialist to join a highly collaborative and diverse research team and participate in multiple NIH-funded multi-disciplinary research projects in human immunology. The Lab is looking to hire a highly motivated individual to contribute to research projects focused on analysis of innate and adaptive immune responses in pediatric and adult cohorts with Mycobacterium tuberculosis and/or HIV infection. The laboratory is also designated as an Immunology Specialty Laboratory for the



NIH-funded Advancing Clinical Therapeutics Globally (ACTG) network. **TO APPLY:** Interested candidates may forward a CV (including names and contact information for 3 references) to Dr. Cheryl Day, <u>cday@emory.edu</u> or apply directly online: <a href="https://staff-emory.icims.com/jobs/126034/job">https://staff-emory.icims.com/jobs/126034/job</a>

### **Student Spotlight**

Congratulations to first year Emory Rollins School of Public Health MPH students **Sylvie Prepetit and Carly Griffin** on their acceptance into the <u>Dr. James A. Ferguson Emerging Infectious Diseases Research Initiatives for Student Enhancement (RISE) Fellowship Program this summer.</u>

Sylvie is in the Behavioral, Social, and Health Education Sciences program and pursuing a certificate in infectious disease epidemiology. She will be working with Dr. Sarita Shah, Co-Director of the TRAC Clinical and Population Sciences Core for her RISE fellowship. Currently she is also a Graduate Research Assistant with the TRAC - we appreciate her contributions to the Newsletter and social media outreach to the Rollins School of





Carly is in the Epidemiology Program and a Graduate Research Assistant supporting Dr. Sara Auld's Inflammation and Fibrosis in Patients with Pulmonary Tuberculosis (INFIN-TB) study and will continue working on an independent research project with Dr. Auld for her RISE fellowship.

### **TRACcolades**



Congratulations to **Dr. Juliet N. Sekandi** on being chosen as one of the recipients of the Creative Research Medal award at UGA for her exceptional sequence of TB projects. Her groundbreaking work started as a post-doctoral fellow and has culminated in a clinical trial of Video Directly Observed Therapy (VDOT) in Uganda. Dr. Sekandi conducted one of the first pilot evaluations

of VDOT's feasibility, acceptability, and cost among tuberculosis patients in Uganda. In a clinical trial led by Sekandi, VDOT improved treatment completion rates up to nearly 90%. She is also collaborating on developing facial recognition software with colleagues to enhance TB treatment adherence monitoring.





Congratulations to TRAC Developmental Core Co-Directors **Drs. Henry Blumberg and Russell Kempker, and Co-Prinicpal Investigator Dr. Kidist Bobosha** at the Armauer Hansen Research Institute (AHRI) on the successful re-competition of their D43 Ethiopia-Emory TB Research Training Program (EETB-RTP). The EETB-RTP is funded through the National Institutes of Health's Fogarty International Center, and the renewal will support years 11 through 15 of the Program! The training program benefits from an ongoing partnership with 3 Ethiopian institutions in Addis Ababa: AHRI, an internationally recognized research institute with a major focus on TB investigation; Addis Ababa University, the oldest and largest degree granting university in Ethiopia; and the Ethiopian Public Health Institute, which along with AHRI, is part of the Ethiopian Ministry of Health. Since 2013, the EETB- RTP has provided long-term training to 40 Ethiopian trainees helping to establish an emerging critical mass of MD and PhD-level investigators focused on TB-related clinical and translational research. We look forward to learning more about the Program's activities, and the trainees and their research over the coming years.



### **Upcoming Events**

TB WORKS IN PROGRESS: "INTEGRATING MENTAL HEALTH AND TUBERCULOSIS CARE SYSTEMS IN MONTSERRADO COUNTY, LIBERIA"

Samhita Kumar, MPH, Doctoral Student, Global Health & Development Program Hubert Department of Global Health, Rollins School of Public Health



Friday April 19, 2024 9-10am, CNR 3001 and Zoom [Add to calendar] [Flyer]



PUBLIC DATABASES FOR TB RESEARCH LECTURE SERIES: "DATA SOURCES INFORMING GBD TB RESEARCH AND APPLICATIONS"

Hmwe Hmwe Kyu, MBBS, MPH, PhD, Associate Professor,
Department of Health Metrics Sciences, School of
Medicine, and the Institute for Health Metrics and
Evaluation (IHME), University of Washington

Tuesday April 23, 2024 12-1pm CNR 3001 & Zoom [Flyer]



## SEATREC



## IN-PERSON TRAINING: BEST PRACTICES FOR COMMUNITY ENGAGEMENT

Mike Frick and Laia Ruiz, Treatment Action Group
Tuesday May 14th, 12-3pm
CNR 8030 (Klamon room)
Lunch will be served

### **Bulletin**

#### **TUBERCULOSIS TRIALS CONSORTIUM SPRING MEETING**



Registration is now open for the May meeting of the Centers for Disease Control and Prevention's Tuberculosis Trials Consortium (TBTC). The meeting will take place over four days (May 14-17) in the R. Randall Rollins Building at Emory's Rollins School of Public Health. Registration is open for the general sessions May 15 and 16 (registration links below).

Registration of the general TBTC sessions May 15 and 16:
To attend IN-PERSON, please register here
To attend VIRTUALLY, please register here

The TRAC will be hosting a reception Wednesday, May 15 from 5:30-7:00 PM.

Administrative Supplements and Notices of Special Interest with potential interest to TRAC investigators:

RFA-AI-23-023: International Research in Infectious Diseases (R01 Clinical Trial Not Allowed) (nih.gov)

<u>Early Stage Investigator Extensions | grants.nih.gov</u>

NOT-OD-23-170: Notice of Special Interest (NOSI): Research Supplements to Promote Re-Entry, Re-integration into, and Re-training in Health-Related Research Careers (Admin Supp - Clinical Trial Not Allowed) (nih.gov)

NOT-OD-23-031: Notice of Special Interest: Administrative Supplements to Promote Research Continuity and Retention of NIH Mentored Career Development (K) Award Recipients and Scholars

NOT-OD-23-032: Notice of Special Interest (NOSI): Administrative Supplement for Continuity of Biomedical and Behavioral Research Among First-Time Recipients of NIH Research Project Grant Awards

NOT-AI-21-074: Notice of Special Interest (NOSI): Primary Caregiver Technical Assistance Supplements (PCTAS) (Admin Supp Clinical Trial Optional) (nih.gov)



A big thank you to the many students, staff, post-docs, faculty, guest speakers, moderators, panelists and attendees who supported our 2024 World TB Day activities!

We also wanted to share a few highlights and the incredible energy...





### **March Publications**

Ajiboye, A. S., O'Connor, S., Smith, J. P., Ahmedov, S., Coggin, W. L., **Charles, M.,** Ghosh, S., Pierre, P., **Shah, N.**, Teran, R. A., Moonan, P. K., & **Date, A.** (2024). Tuberculosis Preventive Treatment Update - U.S. President's Emergency Plan for AIDS Relief, 36 Countries, 2016–2023. MMWR Morb Mortal Wkly Rep, 73(11), 233–238. <a href="https://doi.org/10.15585/mmwr.mm7311a1">https://doi.org/10.15585/mmwr.mm7311a1</a>

Alemayehu, A., **Wassie, L.**, Neway, S., Ayele, S., Assefa, A., **Bobosha, K.**, Petros, B., & Howe, R. (2024). Clinical and Imaging Characteristics of Smear Negative Pulmonary Tuberculosis Patients: A Comparative Study. Pulm Med, 2024, 2182088. https://doi.org/10.1155/2024/2182088

Carter, J. J., Walker, T. M., Walker, A. S., Whitfield, M. G., Morlock, G. P., Lynch, C. I., Adlard, D., Peto, T. E. A., **Posey**, **J. E.**, Crook, D. W., & Fowler, P. W. (2024). Prediction of pyrazinamide resistance in Mycobacterium tuberculosis using structure-based machine-learning approaches. JAC Antimicrob Resist, 6(2), dlae037. <a href="https://doi.org/10.1093/jacamr/dlae037">https://doi.org/10.1093/jacamr/dlae037</a>

Cherkos, A. S., Cranmer, L. M., Njuguna, I., LaCourse, S. M., Mugo, C., Moraa, H., Maleche-Obimbo, E., Enquobahrie, D. A., Richardson, B. A., Wamalwa, D., & John-Stewart, G. (2024). Effect of tuberculosis-HIV co-treatment on clinical and growth outcomes among hospitalized children newly initiating antiretroviral therapy. Aids, 38(4), 579-588. https://doi.org/10.1097/qad.0000000000003797

Ekramnia, M., Li, Y., Haddad, M. B., Marks, S. M., Kammerer, J. S., Swartwood, N. A., Cohen, T., Miller, J. W., Horsburgh, C. R., Salomon, J. A., & Menzies, N. A. (2024). Estimated rates of progression to tuberculosis disease for persons infected with Mycobacterium tuberculosis in the United States. Epidemiology, 35(2), 164-173. https://doi.org/10.1097/ede.0000000000001707

Khayumbi, J., Sasser, L. E., McLaughlin, T. A., Muchiri, B., Ongalo, J., Tonui, J., Ouma, S. G., Campbell, A. Odhiambo, F. H., Kiprotich, C., Gandhi, N. R., & Day, C. L. (2024). Active Tuberculosis Is Associated with Depletion of HIV-Specific CD4 and CD8 T Cells in People with HIV. AIDS Res Hum Retroviruses. https://doi.org/10.1089/aid.2023.0088

Maenetje, P., Baik, Y., Schramm, D. B., Vangu, M. D. W., Wallis, R. S., Mlotshwa, M., Tiemessen, C. T., Li, Y., Kornfeld, H., Churchyard, G., Auld, S. C., & Bisson, G. P. (2024). Circulating Biomarkers, Fraction of Exhaled Nitric Oxide, and Lung Function in Patients With Human Immunodeficiency Virus and Tuberculosis. J Infect Dis, 229(3), 824-832. https://doi.org/10.1093/infdis/jiad232

Morgan, H., Ndjeka, N., Hasan, T., Gegia, M., Mirzayev, F., Nguyen, L., Schumacher, S., Schlub, T. E., Naidoo, K., & Fox, G. J. (2024). Treatment of multidrug-resistant or rifampicin-resistant tuberculosis with an all-oral 9-month regimen containing linezolid or ethionamide in South Africa: A retrospective cohort study. Clin Infect Dis. https://doi.org/10.1093/cid/ciae145

Ogongo, P., Wassie, L., Tran, A., Columbus, D., Sharling, L., Ouma, G., Ouma, S. G., Bobosha, K., Lindestam Arlehamn, C. S., Gandhi, N. R., Auld, S. C., Rengarajan, J., Day, C. L., Altman, J. D., Blumberg, H. M., & Ernst, J. D. (2024). Rare Variable M. tuberculosis Antigens induce predominant Th17 responses in human infection. bioRxiv. https://doi.org/10.1101/2024.03.05.583634

**Naidoo, K.**, Perumal, R., Cox, H., Mathema, B., Loveday, M., Ismail, N., **Omar, S. V.**, Georghiou, S. B., Daftary, A., O'Donnell, M., & Ndjeka, N. (2024). The epidemiology, transmission, diagnosis, and management of drug-resistant tuberculosis-lessons from the South African experience. Lancet Infect Dis. <a href="https://doi.org/10.1016/s1473-3099(24)00144-0">https://doi.org/10.1016/s1473-3099(24)00144-0</a>

Ngo, H. X., Xu, A. Y., Velásquez, G. E., Zhang, N., Chang, V. K., Kurbatova, E. V., Whitworth, W. C., Sizemore, E., Bryant, K., **Carr, W.**, Weiner, M., Dooley, K. E., Engle, M., Dorman, S. E., Nahid, P., Swindells, S., Chaisson, R. E., Nsubuga, P., Lourens, M., Savic, R. M. (2024). Pharmacokinetic-Pharmacodynamic Evidence from a Phase 3 Trial to Support Flat-Dosing of Rifampicin for Tuberculosis. Clin Infect Dis. <a href="https://doi.org/10.1093/cid/ciae119">https://doi.org/10.1093/cid/ciae119</a>

Salindri, A. D., **Auld, S. C.**, Gujral, U. P., Urbina, E. M., Andrews, J. R., Huaman, M. A., & **Magee, M. J.** (2024). Tuberculosis infection and hypertension: prevalence estimates from the US National Health and Nutrition Examination Survey. BMJ Open, 14(3), e075176. <a href="https://doi.org/10.1136/bmjopen-2023-075176">https://doi.org/10.1136/bmjopen-2023-075176</a>

White, Y. N., Solans, B. P., Denti, P., van der Laan, L. E., Schaaf, H. S., Vonasek, B., Malik, A. A., Draper, H. R., Hussain, H., Hesseling, A. C., Garcia-Prats, A. J., & Savic, R. M. (2024). Pharmacokinetics and Optimal Dosing of Levofloxacin in Children for Drug-Resistant Tuberculosis: An Individual Patient Data Meta-Analysis. Clin Infect Dis, 78(3), 756-764. https://doi.org/10.1093/cid/ciae024



# Have items to include in a future newsletter?

Email: lisa.sharling@emory.edu

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WEBSITE TB.EMORY.EDU