

UNDERNUTRITION ASSESSMENT AND NUTRIENT INTAKE OF PEOPLE WITH TB IN THE PHILIPPINES

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RECENT PUBLICATIONS We are thrilled to report the first publication from the initial round of Emory/GA TRAC pilot awards has been accepted for publication. Glyzelle Lagason, MD, at the De La Salle Health Sciences Institute, Dasmariñas, Philippines and Peter Cegielski, MD, MPH, from Emory University's Rollins School of Public Health were awarded a collaborative TRAC-Global pilot award in May 2023. Their project addressed a need to determine the proportion and degree of undernourishment among people with TB in the Philippines to help guide nutritional assessment, counseling, and support. The Philippines ranks among the 30 high TB burden countries and people are vulnerable to undernutrition due to food insecurity. However, a standardized nutritional care program for people with TB in the outpatient setting has not been implemented. We look forward to reading their paper titled "Undernutrition Assessment and Nutrient Intake of people with TB in the Philippines" in the International Union Against Tuberculosis and Lung Disease Open journal soon!

TRAColades

Congrats to Frederick Quinn, PhD, and Christopher Whalen, MD, MS, at the University of Georgia and Noah Kiwanuka, PhD, MBChB, MPH, at Makerere University on their collaborative R21 award titled <u>'Assessing the</u> <u>Mycobacterium tuberculosis carriage state'</u>. They will perform an analyses of upper respiratory tract (URT) M. tuberculosis (Mtb) carriage in asymptomatic adults in Kampala, Uganda, exposed to people with active TB. Understanding



whether Mtb possesses a URT carriage-like state in humans will be critical for more accurately diagnosing, controlling disease development and transmission and improving vaccine efficacy.



Congratulations Jessica Rothman, doctoral student in the Emory Rollins School of Public Health's (RSPH) Epidemiology Program, and mentor Kristin Nelson, PhD (Emory RSPH, Dept. of Epidemiology) on receiving a <u>CFAR-K award</u> for the project titled 'Estimating the Epidemiologic Impact of a Tuberculosis Vaccination Program among People Living with HIV in the U.S.' Jessica and Dr. Nelson jointly developed the proposal with support from

Dr. Kenneth Castro (Emory TB Center Co-Director), who will serve as the primary mentor for the project.

A huge congrats to **Russell Kempker**, **MD**, **MSc** on his promotion to Professor of Medicine with tenure!





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Publication Highlights



Kudos to **Rachel Kinsella**, **PhD**, on her recent publication titled <u>'ATG5 suppresses type I IFN-dependent neutrophil</u> <u>effector functions during Mycobacterium tuberculosis</u> <u>infection in mice'</u> in Nature Microbiology. The paper shows that autophagy protein 5 (ATG5) functions independent of autophagy in neutrophils to restrict type I interferonmediated release of neutrophil extracellular traps and neutrophil swarming, which would otherwise promote lung

inflammation and susceptibility to infection. The paper's findings suggest that ATG5 may be a potential target for host-directed therapies.

A Review titled '<u>Management of individuals exposed to</u> <u>multidrug-resistant or rifampicin-resistant tuberculosis</u>' in the Lancet Infectious Diseases was co-authored by Amyn Malik, PhD, MBBS, MPH, an Emory Rollins School of Public Health graduate and collaborator of TRAC investigator Lisa Marie Cranmer, MD, MPH. The Review concludes that management of people exposed to multidrug-resistant or rifampin-resistant TB has been hampered by a lack of high-quality data; however



recent observational and randomized control trials now provide strong new evidence that 6 months of levofloxacin as TB preventive treatment should strongly be considered for contacts at high risk. Also stressed is the importance of implementing intense TB screening to detect all co-prevalent TB among exposed household contacts and adequate TB diagnostic facilities.



Kudos to **Nestani Tukvadze**, **MD**, as first author of an article detailing the protocol for a multi-site phase 2 randomized, controlled trial. The article is titled <u>'DRTB-HDT: a randomized</u> <u>controlled trial of two adjunctive host-directed therapies in</u> <u>rifampin-resistant tuberculosis'</u>. Current TB treatments leave a majority of cured participants with permanent, clinically significant lung impairment and radiographic evidence of

bronchiectasis and fibrosis. The trial will determine if adjunctive host-directed drugs dovramilast or metformin can prevent these poor outcomes.

Congratulations to **Peter Cegielski**, **MD**, on his contribution to the Health Policy article titled <u>'A roadmap for integrating</u> <u>nutritional assessment, counselling, and support into the care</u> <u>of people with tuberculosis'</u> in the Lancet Global Health. The article proposes integrating nutritional assessment, counselling, and support into TB treatment as part of personcentred care. Furthermore, it calls for annual reporting of



nutritional metrics by WHO, inclusion of nutritional assessment and care in national strategic plans, domestic or international support of nutritional programmes for people with TB, increased support for operational research initiatives, and integration of nutritional care into the WHO Multisectoral Accountability Framework.

Upcoming Events

TB WORKS IN PROGRESS SEMINAR IMMUNE DYNAMICS IN WOMEN WITH TB INFECTION DURING PREGNANCY AND POST-PARTUM



Friday July 18, 2025, 9 - 10 am CNR Room 4001 and <u>Zoom [Flyer]</u>



Fregenet Tesfaye, **PhD**, **MSc** received her PhD in Clinical Infectious Diseases and her research focuses on the impact of pregnancy on immune control of TB infection and identifying diagnostic biomarkers for TB in pregnant women with and without HIV infection. As a Research Fellow with the Ethiopia-Emory TB Research Training Program, she expanded her research to investigate the immunological dynamics of TB infection during pregnancy. Through a **TRAC-G Pilot Grant** and

in collaboration with **Cheryl Day**, **PhD** TRAC Basic Sciences Core Co-director, Dr. Tesfaye is studying Mycobacterium tuberculosis-specific T cell immune responses and single-cell transcriptional signatures during pregnancy and the postpartum period to better understand the pathogenesis of TB progression.

Bulletin Board



We encourage early-stage investigators to apply!

Recent NIH Notices:

- Updated NIH Policy on Foreign Subawards, NOT-OD-25-104, May 1, 2025
- Updated NIH Processes for No-Cost Extensions, NOT-OD-25-110, May 7, 2025

Funding opportunities for researchers impacted by federal funding cuts

UNIVERSITY RESEARCH COMMITEE SEED GRANTS



EMORY UNIVERSITY University Research Committee

The University Research Committee (URC) supports: 1) Early career faculty on their path toward research independence; 2) More advanced faculty who wish to engage novel questions that enhance their expertise; and 3) Teams of faculty who seek to transcend the boundaries of their respective disciplines and undertake transformative research. **Eligible applicants are regular, continuing full-time faculty of Emory University.** <u>URC grants</u> are open to eligible applicants from all Emory schools and disciplines. More info <u>here</u>.

OFFICE OF RESEARCH DEVELOPMENT

Office of the Senior Vice President for Research

Emory's <u>Office of Research Development</u> (ORD) within the Office of the Senior Vice President for Research (SVPR) maintains a database of >40 Institutional funding opportunities that are predominately seed grants. The full list can be found <u>here</u>. **Eligibility criteria for some programs extend beyond the Emory community and can be viewed within the database**.

ERC GRANTS FOR NON-EUROPEAN RESEARCHERS



European Research Council Established by the European Commission

The European Research Council (ERC) is a funding organization for frontier research. Researchers from anywhere in the world can apply for ERC grants provided the research they undertake will be carried out in an <u>EU Member State</u> or <u>Associated Country</u>. Research projects funded by the ERC can last up to five years and can cover frontier research in any scientific domain, including social sciences, humanities and interdisciplinary studies. The grants may help both emerging research leaders ('ERC Starting Grants' and 'ERC Consolidator Grants') and already well-established and recognized scientists ('ERC Advanced Grants'). More Information can be found <u>here</u>.

May Publications

Chauvel C, Vanhems P, Quemin MC, Abifadel M, Awasthi S, Banu S, Costa SF, Eyangoh S, Hamze M, Hossain Z, Kouriba B, Mukadi-Bamuleka D, Ntoumi F, Ouedraogo AS, Paboriboune P, Pape JW, Phoeung CL, Qadri F, Vasconcelos ATR, Russomando G, Samison L, Siqueira MAM, **Tukvadze N**, Wang J, Komurian Pradel F. <u>Clustering and visualisation of the GABRIEL network expertise in the field of</u> <u>infectious diseases.</u> BMJ Glob Health. 2025;10(5). DOI: 10.1136/bmjgh-2024-017595.

Collins JM, **Bobosha K**, Narayanan N, **Gandhi NR**, **Day CL**, **Rengarajan J**, **Kempker RR**, Lau MSY, Nellis M, **Tukvadze N**, **Shah NS**, **Brust JCM**, Nizam A, Ismail NA, Kauffman KD, Sakai S, Jones DP, Barber DL, Ziegler TR, Ernst JD, **Blumberg HM**, **Wassie L**. <u>A plasma metabolic signature to diagnose pulmonary</u> <u>tuberculosis and monitor treatment response</u>. J Infect Dis. 2025. DOI: 10.1093/infdis/jiaf240.

Ehrlich J, Suñer C, Churchyard G, Cobelens F, Hatherill M, Mendelsohn SC, **Nelson KN**, Scriba T, Theron G, Martinez L, Garcia-Basteiro AL. <u>Unveiling a hidden phenotype of early tuberculosis.</u> Lancet Respir Med. 2025;13(5):385-7. DOI: 10.1016/s2213-2600(25)00092-x.

Kempker RR, Salindri AD, Avaliani T, Kornfeld H, **Auld SC**, Jakobia N, **Day CL**, **Subuddhi A**, Krish KN, Vashakidze S, Avaliani Z, Goginashvili L, Bryan C, Bernheim A, **Kipiani M**, **Magee MJ**. <u>High rates of post-</u> <u>tuberculosis lung disease among persons successfully treated for drug-susceptible and resistant</u> <u>tuberculosis</u>. Thorax. 2025. DOI: 10.1136/thorax-2024-222350.

Kinsella RL, Sur Chowdhury C, Smirnov A, Mreyoud Y, Kimmey JM, Esaulova E, McKee SR, Pride A, Kreamalmeyer D, Artyomov MN, Stallings CL. <u>ATG5 suppresses type I IFN-dependent neutrophil effector</u> *functions during Mycobacterium tuberculosis infection in mice.* Nat Microbiol. 2025;10(6):1323-39. DOI: 10.1038/s41564-025-01988-8.

Mave V, Paradkar M, Conradie F, Gupta A, Avihingsanon A, **Meintjes G**, Turkova A, Dooley KE, Chaisson RE. <u>Tuberculosis disease among people with HIV: therapeutic advances.</u> Lancet HIV. 2025;12(5):e367-e81. DOI: 10.1016/s2352-3018(25)00040-2.

Meghji J, **Auld SC**, Bisson GP, Khosa C, Masekela R, Navuluri N, Rachow A. <u>Post-tuberculosis lung</u> <u>disease: towards prevention, diagnosis, and care.</u> Lancet Respir Med. 2025;13(5):460–72. DOI: 10.1016/s2213-2600(24)00429-6.

Pillay K, Coetzer T, Connolly C, Pillay B, Chiliza T, **Naidoo K**, Sutherland J, Ndung'u T, Mayanja-Kizza H, Pillay M. <u>IgG antibody response to Mycobacterium tuberculosis curli pili (MTP) in people from different</u> <u>geographical regions in Sub-Saharan Africa.</u> Tuberculosis (Edinb). 2025;152:102634. DOI: 10.1016/j.tube.2025.102634.

Sawe S, Tsirizani L, Court R, Gausi K, Poswa A, Badat T, Wiesner L, Loveday M, **Maartens G**, Conradie F, Denti P. <u>The effect of pregnancy on the population pharmacokinetics of levofloxacin in South Africans</u> <u>with rifampicin-resistant tuberculosis.</u> Antimicrob Agents Chemother. 2025;69(5):e0162624. DOI: 10.1128/aac.01626-24.

Schmidt AC, Fairlie L, Hellström E, Luabeya Kany Kany A, Middelkoop K, **Naidoo K**, Nair G, Gela A, Nemes E, Scriba TJ, Cinar A, Frahm N, Mogg R, Kaufman D, Dunne MW, Hatherill M. <u>BCG Revaccination</u> *for the Prevention of Mycobacterium tuberculosis Infection*. N Engl J Med. 2025;392(18):1789-800. DOI: 10.1056/NEJMoa2412381.

Sinha P, Bhargava M, Carwile ME, Dauphinais MR, Tisile P, Cintron C, Locks LM, Hauser J, Oliver M, Heysell SK, Mehta S, Finkelstein JL, Koura KG, **Cegielski JP**, Houben R, McQuaid CF, Bhargava A. <u>A</u> roadmap for integrating nutritional assessment, counselling, and support into the care of people with tuberculosis. Lancet Glob Health. 2025;13(5):e967-e73. DOI: 10.1016/s2214-109x(25)00021-x.

Stadler JAM, Kuhlin JJ, Molloy SF, Mtwa NN, Hayes CC, **Maartens GG**, Warren RR, **Meintjes GG**, **Wasserman SS**. <u>Treatment Outcomes with an Oral Short Course Regimen for Rifampicin-resistant</u> <u>Tuberculosis in a High HIV Prevalence, Programmatic Setting in South Africa.</u> Clin Infect Dis. 2025. DOI: 10.1093/cid/ciaf112.

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Have items to include in a future newsletter? Email: lisa.sharling@emory.edu

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