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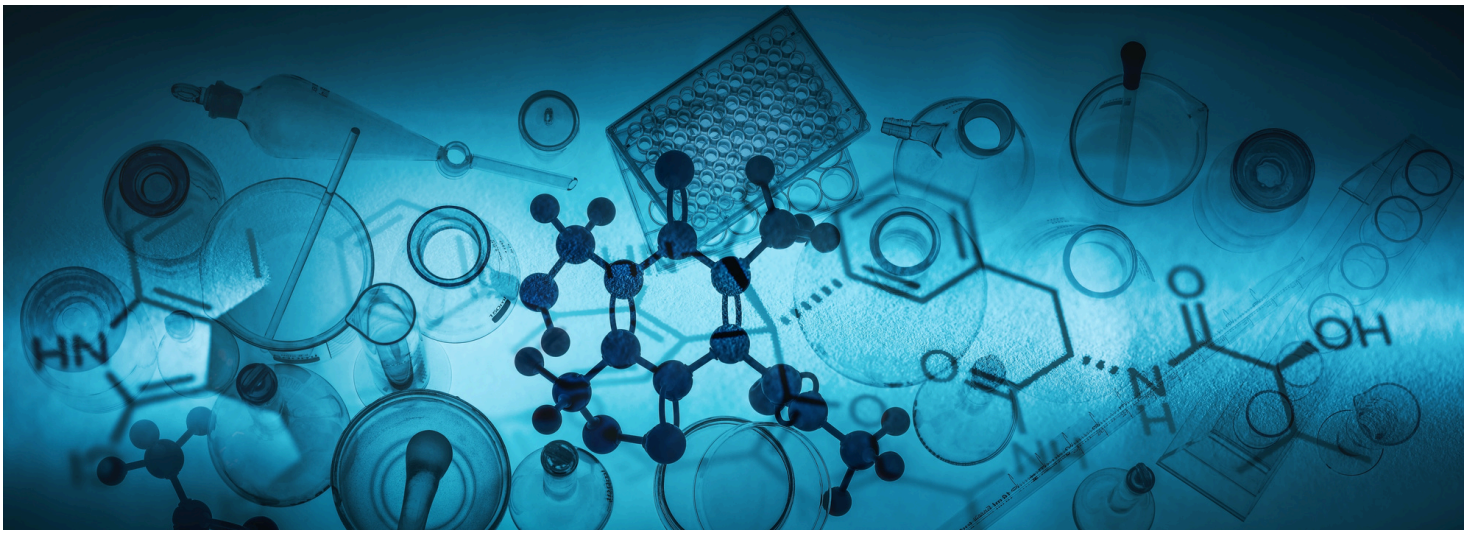
THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

As co-leads of the TB Free NYC Coalition Education Working Group, we are excited to share that we are developing a new support pamphlet for individuals newly diagnosed with tuberculosis.
This resource is being created in collaboration with healthcare providers, public health professionals, and individuals with lived TB experience to ensure it is practical, accurate, and empathetic. It will include clear answers to commonly asked questions, tips for managing side effects and maintaining emotional well-being during treatment, and easy-to-use scripts to support conversations with family, friends, and employers about TB. Our goal is to reduce fear, fight stigma, and help patients feel more confident and supported throughout their care journey. We look forward to making this patient-centered guide available soon as part of our continued efforts to improve TB education in New York City and across the nation.

Stay tuned for more updates!

LATEST NEWS: SHOWCASING STORIES OF TB SURVIVORS

We at The Mueller Health Foundation continue to be deeply committed to sharing personal stories and giving a voice to TB patients, TB survivors, TB practitioners, and all the friends and family members of the people who have been affected by the disease. We are also proud to continue our support of our new HeroRat Tamasha, who has been trained by APOPO, a charity focused on training rats to detect TB in sputum samples across Africa. APOPO has put together a wonderful collection of success stories from TB survivors, and this month we would like to highlight Mohammed Sali's story:

Mohammed Sali, a 28-year-old father and minibus driver from Addis Ababa in Ethiopia, was blindsided when he fell seriously ill in early 2022. Initially misdiagnosed with typhoid and gastritis, his condition worsened despite multiple hospital visits. After months of uncertainty, he was finally diagnosed with tuberculosis, a disease he never imagined he would face. Beginning treatment brought slow but steady relief, though the journey was physically and emotionally draining. As the family's sole breadwinner, Mohammed had to stop working, and the family was forced to move into a smaller home. His wife, having just given birth to their second child, took on the burden of caring for the children while also supporting him through recovery. With the help of local health workers and APOPO's innovative TB detection program, which uses trained rats to help identify missed cases, Mohammed was able to complete treatment and return to good health. Now back at work and regaining stability, he is determined to raise awareness in his community about TB, encouraging others not to delay care and to speak openly about the disease despite the stigma. For Mohammed, the experience was life-altering, and he now sees advocacy as part of his healing and hope for a healthier future for others. To read his full story, please follow the link here: https://apopo.org/ethiopia-mohammed-sali/

For more news, please also take a look at our top 3 picks for **August** in this newsletter, where we highlight novel research findings and news about the prevention and treatment of tuberculosis around the world.

The Mueller Health Foundation

MHF TOP PICKS FOR AUGUST

Every month, we at the Mueller Health Foundation like to showcase interesting news and updates in the field of tuberculosis (TB). Below are our top **3** picks for **August:**

1. Nurse-led Palliative Care for Multidrug-Resistant (MDR) Tuberculosis Improves Patient Well-Being

A new study in Uganda has found that providing extra support through specially trained nurses can significantly improve the well-being of people being treated for drug-resistant tuberculosis. In the study, 154 patients received either the usual medical care or additional nurse-led care that focused on managing symptoms, offering emotional support, and helping with daily challenges, either in person or by phone every two weeks. After four months, those who received the nurse-led care felt significantly better overall, with a 5-point improvement on a well-being scale compared to those who received standard care. They were also more likely to stick with their TB treatment. These findings support integrating trained nurses to deliver palliative care concurrently with TB treatment, addressing physical, psychological, social, and spiritual needs as part of routine MDR-TB care. To learn more, you can access the study at: https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(25)00173-1/fulltext

2. New Study Moves Closer to Defeating Dormant Tuberculosis Cells

A new study led by the University of Surrey has made a major advance in combating dormant Mycobacterium tuberculosis—the drug-tolerant "zombie" cells that can survive antibiotics and trigger recurrent infections. Researchers exposed over 500,000 genetically engineered TB strains to rifampicin and streptomycin long enough to select for persister cells. They then identified key genes that, when disrupted, made the dormant TB cells much less likely to survive. These genes play important roles in maintaining the bacteria's protective cell wall, controlling its metabolism, and regulating self-destruct mechanisms within the bacteria. Notably, mutations in these same genes are also found in some patient isolates with treatment failure, suggesting real-world relevance. These findings pave the way for new drugs that mimic these gene disruptions, potentially enabling shorter, more effective TB therapies and reducing relapse rates and antimicrobial resistance. To learn more, you can read about the research here: https://www.nature.com/articles/s41598-025-04038-9

3. "Zero TB in Kids" Campaign Shows Path to Elimination Through Public Health Action

A Johns Hopkins-led public health campaign known as Zero TB in Kids, directed by Dr. Kunchok Dorjee and implemented in Tibetan refugee communities in India and Nepal, has achieved an 87% reduction in tuberculosis incidence among schoolchildren by employing comprehensive strategies including mass screening, community mobilization, active treatment of disease, and preventive therapy for latent infection. This initiative exemplifies how combining community engagement, public health infrastructure, and clinical care can drive near-elimination of TB in high-risk groups. It aligns with broader efforts led by Johns Hopkins researchers, such as the SMART4TB consortium, to advance diagnostics, preventive treatment regimens, and short-course therapies aimed at global TB elimination. You can read the article here: https://www.hopkinsmedicine.org/news/articles/2025/03/using-public-health-to-eliminate-tuberculosis

DID YOU KNOW?

A new Lancet study demonstrates the critical importance of fully funding Global Fund-supported programs to maintain global progress against HIV, tuberculosis, and malaria. Between 2024 and 2026, an investment of $72 billion could save 4.4 million lives and prevent over 539 million new infections related to these diseases across 120 low- and middle-income countries. Tuberculosis, now the world's leading infectious disease killer, stands to benefit significantly: For tuberculosis alone, the model estimates that scaling up investments could avert 6.2 million new TB infections over three years. Key findings include:

- Investments made from 2024 to 2026 could cut new TB cases by 28% and TB deaths by 36% compared to current trends.
- Approximately 1.5 million TB deaths could be prevented, including nearly 200,000 among people living with HIV.
- The scale-up would enable 15.5 million people to receive TB treatment, including 523,000 with drug-resistant TB.
- TB preventive treatment (TPT) could reach 30 million people, curbing future disease burden.
- Cost-benefit analysis shows that for every $1 invested, up to $20 in economic return could be realized due to avoided healthcare costs, reduced productivity losses, and long-term gains in health system efficiency.

With the Global Fund's 2025 replenishment approaching, the study warns that insufficient funding could stall momentum, leading to millions of avoidable deaths. Strategic investment now is vital to protect public health and sustain decades of global progress against TB and other major infectious diseases.

Information Source: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)00831-1/fulltext