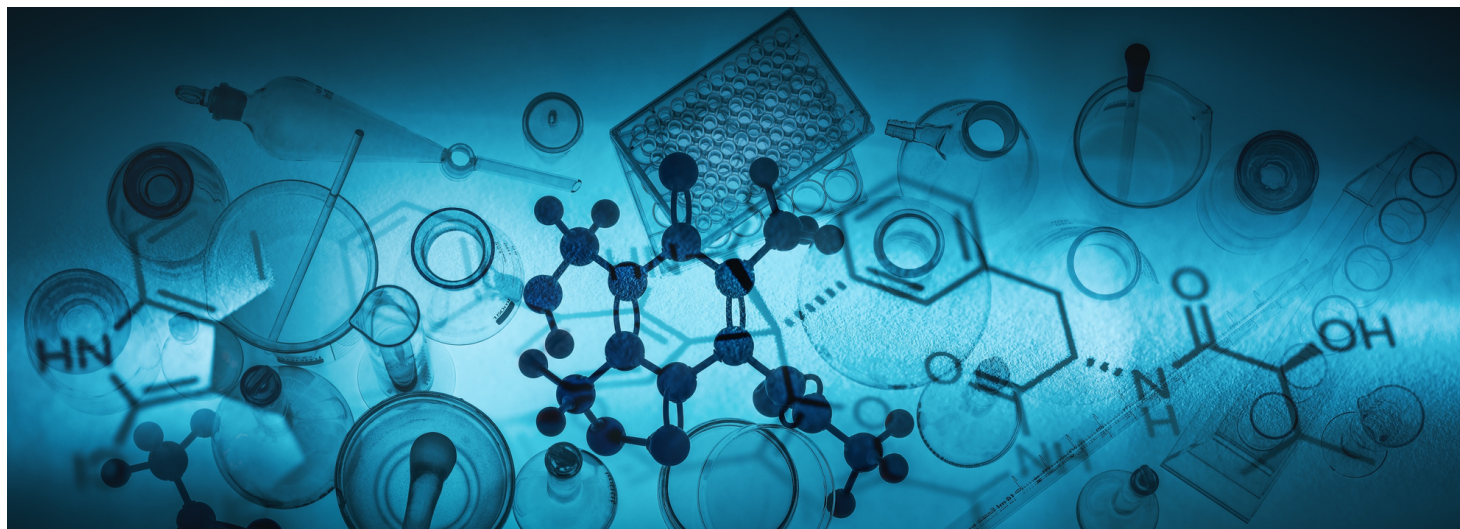


THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

At the Mueller Health Foundation, April marks an important milestone as we conclude our multi-year grant with Cornell University's Russell Lab, led by Dr. David Russell.

The goal of the project was to develop a "roadmap" to inform more rational, effective drug combinations, including host-directed therapies, that could ultimately improve TB treatment outcomes and shorten therapy duration. This work addresses a critical gap in TB care, where current regimens remain complex, prolonged, and vulnerable to treatment failure and drug resistance.

As we close this phase of the partnership, we are excited about the potential impact of this research and look forward to sharing key findings in the months ahead.

Stay tuned for more updates as we continue to support innovative, science-driven solutions to transform TB treatment and improve patient outcomes worldwide.

LATEST NEWS: SHOWCASING STORIES OF TB SURVIVORS

We at The Mueller Health Foundation remain deeply committed to sharing personal stories and giving a voice to TB patients, TB survivors, TB practitioners, and all the friends and family members affected by the disease. We are also proud to continue our support of our 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 Nilham's story:

Nilham is a young child living in Dar es Salaam under the care of her aunt, who has raised her since she was two years old. Although her parents live separately, with her father elsewhere in the city and her mother frequently traveling for work, both provide support. She lives with her aunt and cousin in a home built by her grandmother, and attends nursery school, where her aunt takes great pride in her education. After a holiday visit with her father, Nilham returned home with a persistent cough. Concerned, her aunt sought medical care, and testing confirmed tuberculosis, which was first identified through APOPO's HeroRAT program and verified by laboratory results. The diagnosis was especially alarming given how difficult TB can be to detect in young children. Nilham began treatment promptly and has since improved significantly; her cough has resolved, her energy has returned, and she is gaining weight. However, accessing care remains challenging, requiring long and costly travel for clinic visits. While medication is free, transportation is a financial burden, though receiving a full month's supply of medication has helped. Her aunt remains dedicated to ensuring Nilham completes treatment, despite challenges with medication adherence. Through resilience, family support, and love, she continues working toward Nilham's full recovery. To read Nilham's full story, please follow the link: <https://apopo.org/what-we-do/detecting-tuberculosis/success-stories/nilham/?v=0b3b97fa6688>

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

MHF TOP PICKS FOR APRIL

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 April:

1. WHO Recommends New TB Testing Strategies to Expand Access and Reduce Costs

The World Health Organization has introduced new recommendations to improve tuberculosis diagnosis by making testing faster, more accessible, and more affordable. The guidance highlights three key innovations: near-point-of-care molecular tests, tongue-swab samples, and sputum pooling strategies. Near-point-of-care tests allow TB diagnosis to be conducted closer to where patients receive care, such as primary health centers and community settings, at a lower cost and without relying on centralized laboratories. Tongue swabs provide a simple, non-invasive alternative for individuals who cannot produce sputum, expanding access to testing for underserved populations. Additionally, sputum pooling involves combining samples from multiple individuals into a single test; if the pooled sample is negative, all individuals are cleared, while positive results are followed by individual testing. This approach that can significantly reduce costs and improve efficiency in resource-limited settings. Collectively, these innovations aim to address persistent diagnostic gaps, as many people with TB still face delayed or missed diagnoses due to cost, infrastructure limitations, and challenges with sample collection. To learn more, you can access the guidelines here: <https://www.who.int/teams/global-programme-on-tuberculosis-and-lung-health/diagnosis-treatment/npoc-tongue-swabs-and-sputum-pooling-for-tb>

2. Europe Missing One in Five TB Cases as Drug Resistance Remains High

A new joint report from the World Health Organization and the European Centre for Disease Prevention and Control reveals that tuberculosis detection gaps and high drug resistance continue to challenge progress in Europe. In 2024, an estimated 204,000 people developed TB in the region, but only about 161,000 cases were officially reported, meaning roughly 1 in 5 cases go undiagnosed or unreported. The report also highlights that Europe faces disproportionately high levels of drug-resistant TB, with about 23% of new cases and over 50% of previously treated cases being resistant to key medications, far exceeding global averages. Although TB incidence and deaths in the region have declined since 2015, progress remains too slow to meet global targets. Experts warn that undiagnosed cases fuel continued transmission and worsen treatment outcomes, emphasizing the urgent need for improved early detection, stronger follow-up, and expanded access to effective treatment. To learn more, you can access the report here: <https://www.ecdc.europa.eu/en/publications-data/tuberculosis-surveillance-and-monitoring-europe-2026-2024-data>

3. Pakistan and WHO Intensify Efforts to Combat TB Amid High Daily Death Toll

The World Health Organization and Pakistan's Ministry of Health have renewed their commitment to strengthening tuberculosis control efforts as the country continues to face a significant disease burden. TB affects more than 669,000 people in Pakistan and causes approximately 51,000 deaths annually, equivalent to around 140 deaths per day and over 1,800 new cases daily. Pakistan is the fifth most affected country globally and accounts for about 73% of the TB burden in the Eastern Mediterranean Region. Despite this, the country has achieved a high treatment success rate of about 95%, demonstrating that TB is both preventable and curable when detected early and treated appropriately. The joint initiative emphasizes expanding access to free TB diagnosis and treatment through more than 2,000 public and private health facilities, while also strengthening detection, reducing stigma, and promoting patient-centered care. The report highlights that sustained investment, early diagnosis, and coordinated action are critical to reducing deaths and advancing progress toward ending TB in Pakistan. You can read the article here: <https://www.emro.who.int/pak/pakistan-news/tuberculosis-kills-140-people-per-day-in-pakistan-who-and-the-ministry-of-health-join-forces-to-intensify-action.html>

DID YOU KNOW?

A recent article highlights growing concern that tuberculosis, long considered under control in the United States, is resurging after years of decline. Public health experts warn that this trend reflects broader global setbacks in TB prevention and treatment, particularly following disruptions caused by the COVID-19 pandemic and recent funding cuts. Key points from the report include:

- TB cases in the U.S. increased by about 15% between 2022 and 2023, reversing a decades-long decline, with incidence still relatively low at roughly 3 cases per 100,000 people.
- Localized outbreaks highlight ongoing vulnerability. For example, a major outbreak in the Kansas City area in early 2025 resulted in about 67–68 active TB cases and around 79 latent infections, with at least two deaths, making it one of the largest U.S. outbreaks in recent decades.
- These outbreaks have been concentrated in vulnerable populations and settings where prolonged exposure and limited access to care increase transmission risk.
- Globally, TB remains the deadliest infectious disease, causing an estimated 1.3 million deaths in 2022, and pandemic-related disruptions led to missed diagnoses and increased transmission.

The article emphasizes that TB resurgence in the U.S. is not an isolated issue but part of a broader global challenge. It highlights the need for renewed investment in early detection, treatment continuity, and public health infrastructure to prevent further spread and avoid reversing decades of progress in TB control.

Information Source: <https://www.iflscience.com/after-hopes-of-eradication-the-worlds-deadliest-infection-is-creeping-back-in-the-us-with-a-vengeance-82972>