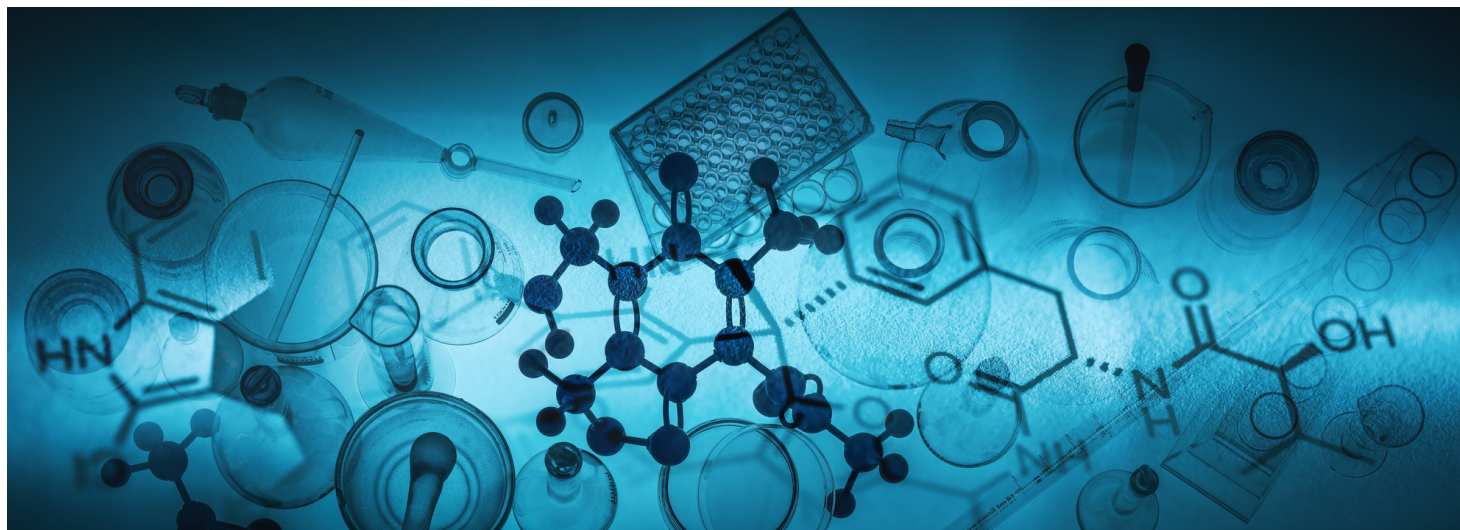


THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

We at The Mueller Health Foundation are excited about World TB Day on March 24th, 2024!

We are thrilled to have premiered a video we created in Times Square in New York City to help raise awareness about tuberculosis.

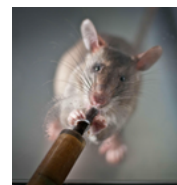
We truly enjoyed commemorating World TB Day and are fully committed to continuing the fight against this disease.

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 HeroRat Carolina 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 Lucia's story, a 28 year old mother of three from Tanzania:

When Lucia got sick, she started struggling to carry out daily activities and she began noticing that she was losing weight. When she started having a fever in the mornings and evenings, she started to worry. Persistent coughing became a regular occurrence, prompting her to try different medications, but to no avail. She went to the clinic and tested positive for malaria, so she took the treatment, but the cough persisted. Eventually, she decided to seek help at a bigger hospital, where they collected and tested her sputum for tuberculosis, but the results came back negative. She was advised to do an X-ray for further confirmation, but she was unable to afford it. She left behind a second sample of her sputum at the clinic to be investigated by one of the HeroRats trained by APOPO that can help to detect TB in sputum samples. The following day, she was called back to the hospital to start treatment as her sputum tested positive for TB. The hospital explained to her what she needed to do to protect her family and friends and how to take her medication. Reflecting back on her journey, she recalls: "I am immensely grateful for the unwavering support of my family. My father, a doctor, instilled hope in me. My husband has been very understanding and encouraging. He constantly reminds me to stick to my medication and eat healthy. It brings me great joy to know that the HeroRats are being used here in Tanzania to save people like me, especially those who cannot afford costly additional testing. A diagnosis was key to receiving this important life-saving treatment so I can recover and get my life back on track." To read her full story please follow the link here: <https://apopo.org/what-we-do/detecting-tuberculosis/success-stories/lucia/>



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

MHF TOP PICKS FOR MARCH

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 **March**:

1. Gates MRI Starts Phase III Trial for Tuberculosis Vaccine

The Bill & Melinda Gates Medical Research Institute (Gates MRI) has dosed the first patient cohort in a Phase III clinical trial to assess the efficacy of the M72/AS01E tuberculosis vaccine candidate. The dosed cohort was enrolled in sites across South Africa. The randomised, placebo-controlled Phase III trial will evaluate the prophylactic efficacy, safety, and immunogenicity of the TB vaccine. The study is expected to enroll up to 20,000 participants across 60 trial sites in seven countries — South Africa, Zambia, Malawi, Mozambique, Kenya, Indonesia and Vietnam. The M72/AS01E vaccine is an adjuvanted recombinant protein vaccine that consists of a 72kDa recombinant fusion protein derived from two MTB antigens. If shown to be well-tolerated and effective, M72/AS01E could potentially become the first vaccine to help prevent pulmonary TB in adolescents and adults, the most common form of the disease. To learn more, you can access the full article at: <https://www.prnewswire.com/in/news-releases/bill-melinda-gates-medical-research-institute-initiates-phase-3-clinical-trial-of-tuberculosis-vaccine-candidate-302092392.html>

2. WHO Study Shows \$39 Return for Each Dollar Invested in Fight against TB

The World Health Organization (WHO) conducted a modelling study that examined in detail the costs and benefits of tuberculosis screening plus TB preventive treatment (TPT) in four countries – Brazil, Georgia, Kenya and South Africa. The results of the assessment show that relatively modest investments can achieve significant health and economic benefits in all four countries and provide a return of up to \$39 USD for each dollar invested. The returns extend beyond monetary benefits, encompassing substantial improvements in public health outcomes and the mitigation of TB's devastating impact on individuals, families and communities. Furthermore, the study can help support countries in advocating for and allocating increased resources to scale up TB screening and preventive treatment towards reaching new targets committed by Heads of State at the 2023 UN High-Level Meeting on TB. To learn more, you can read about the assessment here: <https://www.who.int/publications/i/item/9789240091252>

3. Médecins Sans Frontières Launches Project to Tackle Under-diagnosed Tuberculosis among Children

Tuberculosis in children is a pressing issue given that one child dies of TB every three minutes and more than half of all children with TB are never diagnosed. It is estimated that 96 percent of children who die from TB never received appropriate treatment. Reasons for the underdiagnosis of TB in children are multifactorial: clinicians and programmes can be reluctant to start a long treatment of TB in children without a test confirming the diagnosis. Médecins Sans Frontières (MSF) has launched a worldwide project aiming to increase the number of children diagnosed with TB as well as improve their treatment experience and prevent new cases. This initiative called "TACTiC" for "Test, Avoid, Cure Tuberculosis in Children" will support projects in implementing new recommendations in over a dozen countries in Africa and Asia. In addition, the project aims to contribute to knowledge-building through several multi-country studies on the validity and feasibility of the recommendations, while advocating for their widespread implementation and the development of better tools to diagnose TB in children. You can read the full article here: <https://www.msf.org/tuberculosis-msf-launches-unprecedented-project-tackle-underdiagnosis-among-children>

DID YOU KNOW?

This month on March 24th, 2024 the global TB community will come together to commemorate World TB Day. Here are some interesting facts:

- On March 24th, 1882, Dr. Robert Koch announced the discovery of *Mycobacterium tuberculosis*, the bacteria that causes tuberculosis (TB).
- During the late 1800s, TB killed one out of every seven people living in the United States and Europe.
- A century later, March 24th was designated as World TB Day: a day to educate the public about the impact of TB around the world.
- TB remains one of the world's deadliest infectious killers. Each day, close to 3560 people lose their lives to TB and close to 30,000 people fall ill with this preventable and curable disease.
- Drug-resistant TB remains a public health crisis with major gaps in detection and treatment. Globally, only 2 in 5 people diagnosed with drug-resistant TB access treatment.
- More investments are needed towards supporting the rollout of TB preventive treatment options, shorter TB treatment regimens, rapid molecular diagnostics and tests for TB infection to save millions of lives. Investments in research and innovation are vital to fast-track efforts to reach the end TB targets.
- Ending TB requires concerted action by all sectors to provide the right services, support and enabling safe environment in the right place, at the right time. Poverty, inequity, under nutrition, comorbidities, discrimination, and stigma are major drivers of the TB epidemic.

Information Source:
<https://www.who.int/campaigns/world-tb-day/2024>
<https://www.cdc.gov/tb/worldtbd/default.htm>