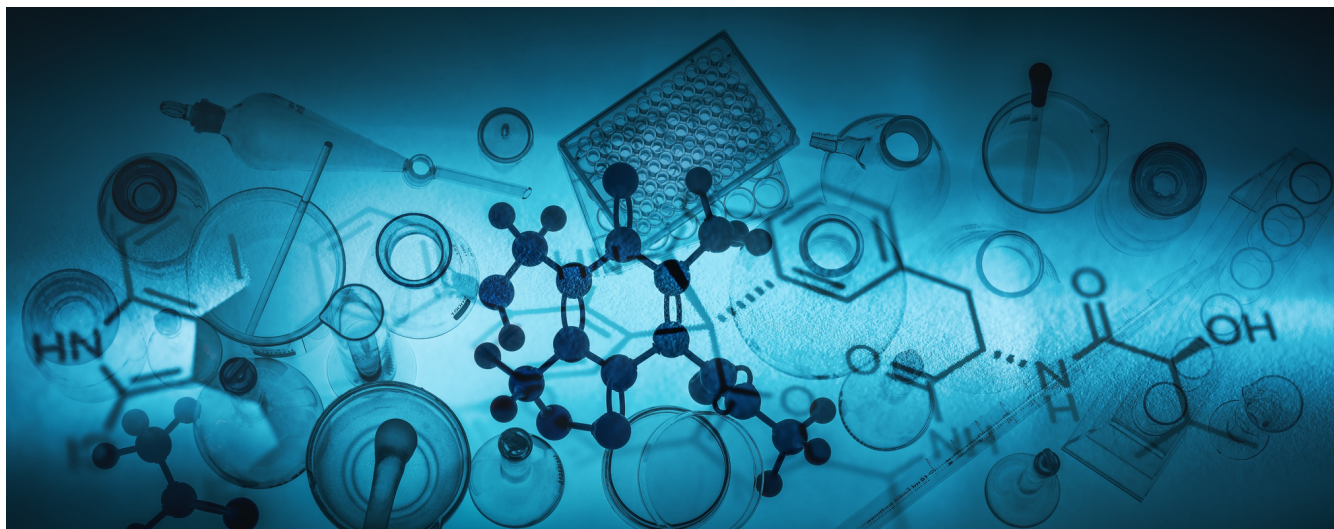


THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

We at The Mueller Health were excited to attend the UN General Assembly high-level side event "Progress and multisectoral action towards achieving global targets to end TB." The side event was co-organized by the Government of Indonesia and the World Health Organization.

The event brought together Heads of State, Ministers of Health, Heads of Agencies, partners and civil society and the main Call to Action sought to promote adequate and sustainable financing for the TB response and TB research through multilateral, bilateral, and domestic mechanisms. A focus was also placed on intensifying TB research and development, notably for new TB vaccines leveraging lessons from the response to the COVID-19 pandemic.

You can learn more about key highlights in our *Did You Know?* section of this newsletter or access a recording of the event here: <https://www.youtube.com/watch?v=cJgeiv-AGMI>

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. The Center for Disease Control and Prevention (CDC) has put together a wonderful collection of stories and this month we would like to highlight Kelcie's story. Kelcie was diagnosed with latent tuberculosis (TB) infection (LTBI) during a health exam after a year living outside of the U.S. Like many people, Kelcie was not familiar with latent TB infection and was not sure what she should do about it. Here is her story of seeking treatment after her latent TB infection diagnosis:

After the latent TB infection diagnosis, Kelcie's doctor spent time answering all of her questions. "She explained to me that the difference between latent and active TB was that essentially I had this bacteria in my body but was not sick, was not contagious, I was not putting anyone else at risk. However, that meant that I could in the future develop active TB, and be sick, and be putting other people at risk," Kelcie explained. Individuals with latent TB infection can take treatment to prevent developing active TB disease in the future. Her doctor presented her with a couple of different treatment options for her latent TB infection. "One was a more traditional nine-month treatment option. But the other was a newer option that was only three months. And while my doctor presented the pros and cons of both, she definitely recommended the three-month option," recalls Kelcie. Once she began treatment, Kelcie's local health department helped facilitate her treatment and answered the questions she had along the way. They came to her house once a week to deliver the pills, which Kelcie found very convenient. As someone who decided to take treatment for latent TB infection to prevent TB disease, Kelcie encourages others to do the same. "Now when I'm sick, I'm not worried that I have TB. And I know that it was handled and taken care of, and I have a lot more peace of mind. I would love people to have more awareness about TB and how easily latent TB can be treated, so that maybe people will get tested more and we would have less issues with people having active TB disease and being sick and contagious," says Kelcie. To read her full story please follow the link to the Center for Disease Control and Prevention's website here: <https://www.cdc.gov/tb/topic/basics/kelciestory.htm>

For more news, please also take a look at our top 3 picks for September 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 SEPTEMBER

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

1. Researchers Devise Rules for a Faster, More Effective Way to Identify Tuberculosis Treatments

In a recent study, researchers from Tufts University used data from large studies that contained laboratory measurements of two-drug combinations of 12 anti-tuberculosis drugs. Using mathematical models, the team discovered a set of rules that drug pairs need to satisfy to be potentially good treatments as part of three- and four-drug cocktails. The use of drug pairs rather than three- and four-drug combination measurement cuts down significantly on the amount of testing that needs to be done before moving a drug combination into further study. With the design rules established in this new study, researchers believe they can increase the speed at which scientists determine which drug combinations will most effectively treat tuberculosis, the second leading infectious killer in the world. To learn more about the research, you can access the full article at: [https://www.cell.com/cell-reports-medicine/fulltext/S2666-3791\(22\)00286-5?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2666379122002865%3Fshowall%3Dtrue](https://www.cell.com/cell-reports-medicine/fulltext/S2666-3791(22)00286-5?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2666379122002865%3Fshowall%3Dtrue)

2. World Leaders Pledge Billions to Fight AIDS, TB, and Malaria during the UN General Assembly

The Global Fund to fight AIDS, tuberculosis and malaria reached \$14.25 billion pledged during the UN General Assembly as world leaders continue to seek to fight the killer diseases after progress was knocked off course by the COVID-19 pandemic. The fund, which is a public-private alliance based in Geneva, is seeking \$18 billion for its next three-year funding cycle from governments, civil society and the private sector. The fund estimates its work has saved around 50 million lives since its inception in 2002. But in 2020, the numbers treated for tuberculosis fell by 19%, to 4.5 million. In 2021, this went back up by 12%, to 5.3 million, which is still just below the 5.5 million pre-pandemic number. It is crucial for the global community to continue to commit and raise funds for these diseases to halt and reverse the COVID-19 pandemic's negative impact on achieving the goals set for eradicating these diseases by 2030. To learn more, you can read the news article here: <https://www.reuters.com/business/healthcare-pharmaceuticals/world-leaders-pledge-billions-fight-aids-tuberculosis-malaria-un-sidelines-2022-09-21/>

3. AI-based System Shows Promise in Tuberculosis Detection in Chest X-Rays

Researchers at Google Health AI developed and assessed an AI system that can quickly and automatically evaluate chest X-rays for TB. The system uses deep learning, a type of AI that can be applied to teach the computer to recognize and predict medical conditions. The researchers developed the system using data from nine countries. They then tested it on data from five countries, covering multiple high-TB-burden countries, various clinical settings and a wide range of races and ethnicities. Over 165,000 images from more than 22,000 patients were used for model development and testing. Analysis with 14 international radiologists showed that the deep-learning method was comparable to radiologists for the determination of active TB on chest X-rays. If additional research supports the results, the deep-learning system could be used to automatically screen chest X-ray results for TB. You can learn more and access the full article here: <https://www.itnonline.com/content/ai-based-system-shows-promise-tuberculosis-detection>

DID YOU KNOW?

Over a hundred people joined the UN General Assembly (UNGA) high level side-event: "Progress and Multisectoral Action towards achieving global targets to end TB" co-organized by the Government of Indonesia and the World Health Organization (WHO) on September 20th, 2022. The focus of the UNGA side event was on reviewing progress towards reaching global TB targets, advancing multisectoral action and accountability, and discussing preparations for the 2023 UN High Level Meeting on TB. Below are some key highlights from the event:

- WHO Director-General Dr. Tedros Adhanom Ghebreyesus called for urgent action to restore essential life-saving TB services, scaling up of investments to increased access to prevention and care, as well as for research, and to integrate TB services into primary health care.
- The Honourable Minister of Health in Indonesia Budi Gunadi Sadikin urged countries, civil societies, industry, and international organizations to keep expanding strategic partnerships and collaboration to make the world free from TB for future generations.
- Jackie Cuen, a TB survivor and advocate made a passionate plea to ensure access to life-saving TB prevention, diagnosis and treatment services for all in need, newer shorter, safer treatments and more effective vaccines.
- Sir Jeremy Farrar, the Director of Wellcome Trust, focused on the importance of new TB vaccine development and on engaging communities in the process. He expressed a sentiment that is also at the core of the values we hold at the Mueller Health Foundation. Sir Jeremy Farrar stated: "We need to work at a community level to put the research and science related to TB vaccines and treatment in a way that communities will wish to have it and trust to have it."
- Dr Lucica Ditiu, the Executive Director of Stop TB Partnership, called for increased investments in TB and put a spotlight on civil society and community engagement. She stated: "Every citizen in every country needs rapid access to the latest tools and policies. If we can do it for COVID, we can do it for TB. This is the ambitious mindset we all need to have to #EndTB by 2030."

Information Source:

<https://www.who.int/news-room/events/detail/2022/09/20/default-calendar/un-general-assembly-high-level-side-event-progress-and-multisectoral-action-toward-achieving-global-targets-to-end-tb>