

2020

Annual Report



“Our hope is to live in a world where every person has access to effective treatment options for infectious diseases and infectious diseases ultimately become eradicated.”

The Mueller Health Foundation Vision

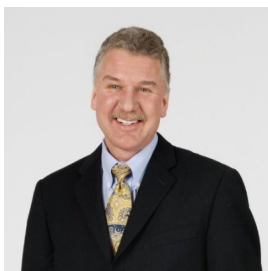
A Note from the President

While disease has always been part of the human experience, the COVID-19 pandemic outbreak in 2020 has brought to the surface many existing instabilities in our healthcare and emergency preparedness infrastructure. Infectious disease outbreaks continue to be on the rise and we have truly come to a critical moment in history, where it has become essential and unavoidable to learn from the global health emergency of the COVID-19 outbreak. We must invest more time and resources to better prepare for future global pandemics by expanding our healthcare infrastructure, investing time and funds into research for new vaccines and treatment options, and by implementing public health policies and education to improve the containment and management of disease outbreaks. If we give some truth to the old adage “what’s past is prologue”, then there is a very real threat of another highly lethal pandemic that could take the lives of millions of people. That is why we at The Mueller Health Foundation have chosen to focus our efforts on the management and prevention of lethal Infectious Diseases around the globe. The eradication of tuberculosis being front and center.

Tuberculosis has been named by WHO as one of 10 leading causes of death in the world and it is a disease that occurs in every part of the world. According to WHO latest report in 2019, an estimated 10 million people fell ill with tuberculosis worldwide in 2018. This included 5.7 million men, 3.2 million women and 1.1 million children. An estimated 1.5 million people died of the disease in 2018. There were cases in all countries and age groups. Multidrug-resistant TB (MDR-TB) as well as extensively Drug Resistant TB (XDR-TB) are on the rise, remain a public health crisis and pose a growing health security threat. Coinfections with Corona viruses, Flu, HIV, additional comorbidities like diabetes, and independent risk factors such as age, poverty and malnutrition have been identified to increase the risk on morbidity and mortality.

In an effort to support the fight against infectious diseases and to prevent more global pandemics, The Mueller Health Foundation is committed to help foster and support innovative research that can lead to new treatment options, particularly for the treatment of tuberculosis. We are also working hard to create global networks of scientists, public health experts, and government representatives to foster a sense of shared responsibility in prioritizing preparedness against global pandemics with a holistic approach that ensures everyone will be protected.

Perhaps the biggest lesson we have learned from the COVID-19 pandemic this year is that we need a continued commitment and willingness to act forcefully and effectively together to prevent and manage future global health emergencies!

A handwritten signature in black ink, appearing to read "P. Mueller".

Prof. Dr. Peter Mueller
President
The Mueller Health Foundation

2020 Highlights in Numbers

Investments Made



Investments Made by Strategic Pillar



Clinical Research and Precision Vaccine Development



Technology and TBConnect Blockchain Application Development



Educational Films and Advocacy Initiatives

Partnerships



8
New Partnerships Established

Publications



2
Press Releases



1
Scientific Paper Publication

Education



1
Educational Video to Increase Awareness for TB



1
Infographic Comparing TB and COVID 19

Communication



2,900%
Increase in Twitter Followers



3,800%
Increase in LinkedIn Followers

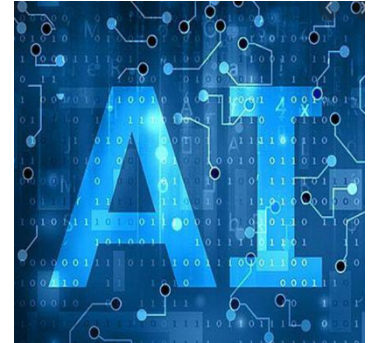


>100
Average Views per Post on LinkedIn and Twitter

Success Stories

InveniAI Partnership

The Mueller Health Foundation has partnered with InveniAI, a highly successful AI technology company based in Guilford, CT, USA, and New Delhi, India, to create a new high-value AI-driven machine learning platform called TBMeld® to identify and accelerate transformative therapies and vaccines for the management, treatment, and cure of tuberculosis (TB). Additionally, the new platform will incorporate predictive modeling functionalities to estimate the effectiveness of TB drug compounds and compound combinations as well as the effectiveness of new TB vaccines. The overarching goal of the collaboration is to pioneer the use of precision medicine to be able to provide tailored, highly effective, more tolerable and shorter treatment options for TB patients affected by both resistant and non-resistant strains of TB.



PVP Collaboration with Boston Children's Hospital



Given the heavy burden of global TB and the newfound promise in translational vaccinology, the *Precision Vaccines Program (PVP)* at Boston Children's Hospital, directed by Dr. Ofer Levy, has engaged in a partnership with The Mueller Health Foundation to reduce the burden of tuberculosis (TB) via immunization. The Mueller Health Foundation has partnered with the PVP in three inter-related projects: 1) Establish a working group to advance and implement an optimal Bacille Calmette-Guérin (BCG) vaccine; 2) discovery of a novel adjuvanted tuberculosis vaccine and 3) create educational videos to communicate and raise awareness of the importance of TB vaccines and treatment options.

TBConnect Blockchain Application

The Mueller Health Foundation is excited to announce the creation of the first ever blockchain application with the aim of creating a global network of key stakeholders in the field of tuberculosis to allow for improved information exchange and collaboration. MHF has successfully partnered with ValueCoders, a software development company based in India, for the creation of the TBConnect application and will be going live on the Ethereum blockchain environment in Spring 2021.



Thank You

We would like to express our deepest gratitude to our supports, partners, and collaborators, for their time, insight, wisdom and contributions. Our work would not be possible without the many individuals from academic institutions, scientific and medical experts, biotech- and high-tech companies, multilateral agencies, non-governmental organizations and global networks, who willingly gave their time, experience and contributions to make a difference in the fight against infectious diseases!



**WORLD HEALTH ORGANIZATION
COLLABORATING CENTRE FOR TUBERCULOSIS
AND LUNG DISEASES,
MAUGERI CARE AND RESEARCH INSTITUTE,
ITALY**