



# FATHIAH ZAKHAM

*Arab region*

Bioengineering and microbiology

Assistant researcher,  
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Hodeidah, Yemen

Dr. Fathiah Zakham applies biotechnology and bio-engineering to the diagnosis and management of tuberculosis and other emerging infectious diseases. Her main goal is to develop rapid, accurate and cheap tools for the detection of the causal agent of tuberculosis and the control of drug-resistance TB strains, which are dramatically increasing, especially in low and middle income countries. Conventional culture methods for laboratory diagnosis and drug resistance testing require several weeks; the molecular approach is a good alternative in poor infrastructure settings. In addition to her work on TB, she is also using metagenomics technology to identify new zoonotic viral pathogens emerging on the Arabian peninsula, including hemorrhagic fevers. Dr. Zakham is working to implement the appropriate molecular tests for the diagnosis and surveillance of these infectious diseases.

Dr. Zakham obtained her PhD in microbiology and molecular biology from Mohammed V University, Morocco, in 2012 and a MSc degree in microbiology and bio-engineering from the University Hassan II. In 2018, she completed a year-long postdoctoral fellowship in the Microbiology institute of University Hospital in Lausanne. She has received the Young Investigator Award at the international Congress of Internal Medicine 2014 and the 2017 Gro Brundtland Award for professional performance in sustainable development and public health among young female scientists. She also received the 2017 Fayza Al-Kharafi Award in biological sciences from The World Academy of Sciences (TWAS). Dr. Zakham is a TWAS Young Affiliate, a member of the Organization for Women in Science for the Developing World (OWSD), and international societies including the International Society for Infectious Disease, European Society of Clinical Microbiology and Infectious Diseases, Yemeni Society of Biosafety and Biosecurity, and others. \*Currently, Dr. Zakham is an Institute of International Education Scholar Rescue Fund (IIE-SRF) scholar at the University of Helsinki.

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*As a Yemeni female scientist, receiving this award will motivate me to continue my research on the diagnostics and control of infectious diseases. This award is an excellent and important initiative to promote the role of women scientists in their local communities, despite the hardship that they face. We should work on the advancement of science and technology if we would like to continue living on this planet.*

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