

ODYSSEE: A modular platform for field diagnosis of Tuberculosis

Tuberculosis (TB) is one of the 10 deadliest diseases worldwide, causing around 1.3 million deaths in 2017 and nearly 3 million people are left undiagnosed, each year.

Once *Mycobacterium tuberculosis*, which causes the disease, dies in a patient's lung, it releases DNA fragments into the blood that eventually appear in urine. We developed a diagnostic test that detects these fragments by targeting the specific gene IS6110. The detection result can be then visualized with a naked eye, through a color change from yellow to red. Our design can be easily implemented for several diseases due to its universality and modularity.

As TB is a leading health threat for populations affected by crises, our test is destined to be applied in refugee camps in Greece, as well as worldwide, making a step towards achieving universal health coverage.