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Development of a shorter tuberculosis treatment

In the past, patients with multidrug-resistant tuberculosis had virtually no hope for survival. Today they usually win their battle with the disease, thanks to a faster-acting combination of medications discovered by ITM.

Antibiotics in the culture on the left stop the growth of bacteria.
The bacteria in the culture on the right are resistant.

How often is a scientist able to significantly increase the chance of survival for thousands of patients? Dr Armand Van Deun is one such notable scientist. Every year some 9 million people contract tuberculosis, one of the bacterial infectious diseases that is becoming increasingly resistant to antibiotics. Those who contract ‘multidrug-resistant tuberculosis’ (MDR-TB) are sentenced to almost two years of treatment â€” if the treatment works at all. Frequently there are toxic side effects. A third of the patients become deaf. Barely half survive. At least that’s the way it used to be, because in May 2016 the World Health Organization (WHO) officially recognised a combination of medications that Armand developed.

As a specialist in tropical medicine, Dr Van Deun became familiar with the illness, among other places, in Bangladesh, where he worked for the Belgian relief organisation Damiaanactie. He saw this disease’s resistance increase but refused to let the situation defeat him. In 1999, Armand started working at ITM’s Mycobacteriology Department, which was run by Prof. Francoise Portaels at the time and who has since been succeeded by Prof. Bouke de Jong. In 2006, Van Deun came up with the ‘Bangladesh regime’, a therapy entailing seven medications that only takes nine months as opposed to the 18 to 24 months that the WHO was recommending at that time. The scientists spent subsequent years confirming their results with various studies. In May 2016, the WHO crowned this lifetime achievement. Thanks to Armand, multidrug-resistant tuberculosis is now a treatable disease.