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nature REVIEWS



► COVER: 'The Invisible Man' by George Marshall and Tom Firth, inspired by the Review on p887.









he WHO estimates that a third of the world's population is infected with Mucobacterium tuberculosis, even if they do not show signs of clinical disease. However, the classification of tuberculosis (TB) as either latent or active has limited our understanding of its biology. On page 845, Douglas Young and colleagues discuss recent findings showing that latent TB can present as a broad range of responses that can be characterized by the distinct lesion microenvironment. Understanding this latency spectrum could prevent the spread of disease by enabling the targeting of those who would most benefit from treatment and could lead to the discovery of new and more effective drugs.

TB is not the only disease to infect such a large proportion of the world's population. The WHO estimates that 247 million people contracted malaria in 2006. With the emergence of drug-resistant Plasmodium falciparum, the development of new treatments has become a priority. As discussed by Richard Eastman and David Fiddock on page 864, artemisinin-based combination therapies have recently been adopted for the prevention of *P. falciparum* malaria. The success of these treatments has led to new hope for malaria eradication.

Although treating or preventing infection with pathogenic microorganisms is important for our health, it is also essential to maintain our own microbiota. Humans have co-evolved with millions of bacteria, which develop in response to environmental factors as well as host genetics. However, changes in human lifestyles have resulted in the gradual loss of these microorganisms. On page 887 Martin Blaser and Stanley Falkow propose that the disappearance of our ancestral microbiota could be the reason behind the increase in allergic and metabolic diseases.

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