nature OUTLOOK

TUBERCULOSIS

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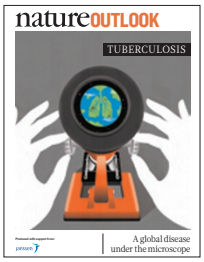

Cover art: Neil Webb

Just when it seemed that humanity was ridding itself of its most lethal microbe, drug resistance and the HIV pandemic has kept *Mycobacterium tuberculosis* firmly on the map (S2).

To quell the rise of drug resistance, we need new types of drugs that act quickly and safely to increase the likelihood that a patient will finish their full course of treatment. In late 2012, the first new anti-TB drug in nearly half a century won market approval, and others should be soon to follow (S4).

Tuberculosis control also needs a practical point-of-care diagnostic – and one that also works in people with HIV. Our reporter visited clinics in Zambia to gauge the rapid roll out across Africa of the GeneXpert, and hears first hand the practical problems of using sophisticated technology in places with rudimentary facilities (S10).

These developments are the fruits of unprecedented public-private collaboration serving a market unable to afford market-priced medicines. To advance this enlightened effort, universities should learn to be less protective of intellectual property and promote affordable medicines for the world's poorest (S7).

While new technologies are important, we also need a broader concept of risk when considering disease susceptibility to help identify ways to alleviate the suffering inflicted by TB using existing technology (S13). Researchers also need to clarify how tuberculosis takes hold in a population and spreads (S16).

Achieving the ultimate goal of eliminating tuberculosis will require an effective vaccine. Ten years ago, no vaccine candidates were undergoing clinical testing; today there are more than a dozen (S8). While the recent failure of a promising vaccine in a clinical trial was a setback, researchers are taking heart from the fact it was possible to conduct the trial in the first place (pages S8).

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Tony Scully
Science Editor, Nature Outlook

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