New Diagnostics Working Group E-News
October 2013

New scientific articles

**Comparative Evaluation of GenoType MTBDRplus Line Probe Assay with Solid Culture Method in Early Diagnosis of Multidrug Resistant Tuberculosis (MDR-TB) at a Tertiary Care Centre in India.**

**Rifampicin heteroresistance in Mycobacterium tuberculosis cultures detected by phenotypic and genotypic drug susceptibility test methods.**

**Bio-microfluidic platform for gold nanoprobe based DNA detection--application to Mycobacterium tuberculosis.**

**Combination of multiplex PCR with denaturing high-performance liquid chromatography for rapid detection of Mycobacterium genus and simultaneous identification of the Mycobacterium tuberculosis complex.**

**Xpert MTB/RIF for diagnosis of tuberculosis and drug-resistant tuberculosis: a cost and affordability analysis.**

**Evolution of high-level ethambutol-resistant tuberculosis through interacting mutations in decaprenylphosphoryl-6-D-arabinose biosynthetic and utilization pathway genes.**

**Characteristics of IFN-γ responses in IGRA among pulmonary TB suspects in a TB-endemic area.**
Feng JY, Huang SF, Lee MC, Ting WY, Chen YC, Lin YC, Lee YC, Su WJ. J Clin Microbiol. 2013 Sep

**Xpert® MTB/RIF in pleural fluid for the diagnosis of tuberculosis [Short communication].**

**Incremental value of T-SPOT.TB for diagnosis of active pulmonary tuberculosis in children in a high-burden setting: a multivariable analysis.**

**Rifampicin-resistant and rifabutin-susceptible Mycobacterium tuberculosis strains: a breakpoint artefact?**

**Factors influencing discordant results of the QuantiFERON-TB Gold In-tube test in patients with active TB.**
The sensitivity of an interferon-γ release assay in microbiologically confirmed pediatric tuberculosis.

Other Publications

Multidrug-resistant tuberculosis in children: evidence from global surveillance.

Threat Report 2013
This report, Antibiotic resistance threats in the United States, 2013 gives a first-ever snapshot of the burden and threats posed by the antibiotic-resistant germs having the most impact on human health.
Centers for Disease Control and Prevention. 2013 Sept

Costs of tuberculosis disease in the EU – a systematic analysis and cost calculation.

Out-of-Africa migration and Neolithic coexpansion of Mycobacterium tuberculosis with modern humans

Tuberculosis Medicines Technology and Market Landscape
UNITAID. 2013 Sept

Management of tuberculosis and HIV coinfection
The WHO Regional Office for Europe is revising five clinical protocols on treatment of and care for people with HIV and AIDS, which were part of the 13 protocols set combined in one volume in 2007. EURO WHO. 2013 Sept

EURO WHO. 2013 Sept

Complex genetics of drug resistance in Mycobacterium tuberculosis.
Warner DF, Mizrahi V. Nat. Genet. 2013 Sept

Antibacterial Activity of and Resistance to Small Molecule Inhibitors of the ClpP Peptidase
CL Compton , KR. Schmitz , RT. Sauer, JK. Sello. ACS Chem Biol 2013 Sept

News

First-ever targeted roadmap outlines steps to end childhood TB deaths
Global TB leaders recently launched the Roadmap for Childhood TB: Towards Zero Deaths, which includes ten actions that, if implemented, could help save tens of thousands of children’s lives, including children infected with both TB and HIV. The actions include training and fostering leadership among health workers, actively seeking out children at risk and providing preventative therapy, and closing the funding gap for childhood TB.

UK Commits £1 Billion to the Global Fund
The UK's Secretary of State for International Development announced that the UK will contribute £1 Billion (US$1.6 billion) to the Global Fund to Fight AIDS, Tuberculosis and Malaria for the 2014-2016 period, the second-largest pledge by any government so far.

TB REACH calls for applications for fourth wave of projects
TB REACH, an initiative of the Stop TB Partnership that aims to increase the number of people with tuberculosis (TB) who are found and provided with quality care, has launched a call for applications for its fourth wave of funding.
Largest ever roll-out of GeneXpert® rapid TB test machines in 21 countries
UNITAID has invested US$ 25.9 million to purchase over 220 GeneXpert® machines and 1.4 million test cartridges for 21 countries in Africa, Eastern Europe and Asia. This is the largest ever roll-out of Xpert MTB/RIF, a diagnostic test that shortens the time to diagnose drug-resistant strains of TB from weeks to only a few hours. Co-ordinated by the World Health Organization and the Stop TB Partnership, this project – known as TBXpert – is estimated to save an additional 62,000 lives.

How much does TB cost in Europe