



**14:30 Session 2: TB Diagnosis**  
**Chair: Bob Gilman**

- 14:30 Proteomic fingerprinting for infectious diseases – *Dan Agranoff*
- 14:45 Proteomics in TB – *Gurj Sandhu*
- 15:00 Genetic and molecular correlates of pyrazinamide resistance  
– *Paty Sheen*
- 15:15 Unravelling the enigmatic mycobacterial pyrazinamidase  
– *Mirko Zimic*
- 15:30 Rapid and sensitive Tuberculosis diagnosis and susceptibility testing without decontamination or centrifugation  
– *Louis Grandjean*
- 15:45 Stool testing to diagnose pulmonary TB in adults and children  
– *Laura Martin*

### **Stool testing to diagnose pulmonary TB in adults and children**

**Laura Martin**, Louis Grandjean, R.H.Gilman, Luz Caviedes, Ron Shiloh, Vivian Kawai, Giselle Soto, Paty Fuentes, Mirko Zimic, A. Roderick Escombe, David A. J. Moore, Carlton A Evans

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Diagnosing pulmonary tuberculosis is difficult in patients who cannot produce sputum. 289 stool samples were collected to test whether the products of swallowed sputum may be detected in stool to diagnose pulmonary tuberculosis. Pre-treatment, all patients were sputum culture-positive and the sensitivity of culturing paired stool samples was 60% with the MODS assay compared with 50% for Middlebrook 7H10 agar, 43% for Löwenstein-Jensen agar, and 36% for auramine microscopy. HIV-infection had no effect on sensitivity ( $P=0.8$ ). MODS identified positive cultures most rapidly (median 11 days,  $P<0.001$ ) and simultaneously indicated antibiotic susceptibility with 100% concordance with other tests. 47 stools from healthy controls were negative (specificity 100%). Sensitivity was lower for stool than sputum culture ( $P<0.001$ ) despite similar contamination rates. IS6110 PCR confirmed speciation for 98% of stool cultures. Therefore, stool culture with MODS is effective for diagnosing pulmonary tuberculosis and should be considered when sputum is unavailable.

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