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Imperial College London Wellcome Centre for Clinical Tropical Medicine Annual Scientific Meeting

1- 2 March 2007, The Miro Room, Melia Hotel, Lima, Peru

10:30- Registration

11:00 Session 1: TB control
Chair: Jon Friedland

11:00 Imperial College Wellcome Centre Overview 2005—2007
- *Geoff Pasvol*

11:15 Overview of Peru group – *Bob Gilman*

11:30 Simplifying and complicating MODS – *David Moore*

12:00 Innovative Strategies for TB control – *Carlton Evans*

12:30 Evaluation of upper room UV light and negative air ionisation for TB infection control using a guinea pig exposure facility.
– *Rod Escombe*

Innovative strategies for TB control

Dan Agranoff, Yvonne Ahn, Jessica Alva, Angela Bayer, Antonio Bernabe, Silvia Carrera, Manuel Catacora, Christopher Chew, Antonino Curatola, Rod Escombe, **Carlton Evans**, Jonathan S. Friedland, Jessica Franco, Bob Gilman, Marie Haro, Beatriz Herrera, Margaret Kosek, Laura Martin, Rosario Montoya, Bill Pan, Willi Quino, Eric Ramos, Maribel Rivero, Gurjinder Sandhu, Paty Sheen, Jonathan Sherman, Mark Siedner, Giselle Soto, Rosario Soza, Eduardo Ticona, Marco Tovar, Teresa Valencia, Enit Valera, Betty Valiente, Carlos Vidal, Pablo Yori, Karine Zevallos, Mirko Zimic.

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The following innovative strategies have been developed for TB control in resource-poor regions.
TB-Susceptibility. Antimycobacterial immunity is augmented by nutritional supplementation *in vitro*, topically and orally. 3,500 participants have been recruited to a trial testing whether this nutritional augmentation of antimycobacterial immunity prevents TB.
TB-Diagnosis. Strategies were developed to concentrate TB, increasing diagnostic sensitivity and facilitating the use of colorimetric indicators of mycobacterial viability that define early treatment response and MDRTB. TB detection in stool was refined for patients who cannot produce sputum.
TB-Treatment. Symptom-persistence and weight-loss during treatment identifies patients likely to have MDRTB, allowing focused early MDRTB-testing. First-line TB-therapy often appears to cure drug-resistant TB, but this increases infectiousness, recurrence and death, emphasizing the need for specific therapy.
TB-Transmission. DOTS increases contact between patients with and without MDRTB, causing frequent MDRTB acquisition for which we have developed enhanced infection control strategies. In the home, a novel risk-score identifies contacts most likely to develop TB disease, allowing focused preventive therapy.
Conclusion. This research program has identified novel strategies for TB control that have influenced national and international policies.

Carlton Evans is an infectious diseases physician who spends his time leading a team of outstanding individuals in Peru utilizing scientific innovation to benefit health and development in resource-poor settings

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