

Rethinking the Epidemiology of Tuberculosis Infection

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SHERATON VANCOUVER WALL CENTRE HOTEL

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The First Global Symposium on Interferon- γ Assays

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The meeting was held under the auspices of the Stop TB Partnership's Working Group on New Diagnostics.

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Plenary Sessions and Oral Abstract Presentations

Challenging the 'Dogma'

Session 1: Latency and the Risk of Active TB (Basic Science): What Do We Currently Know?

- [n/a] Peter Andersen DVM, DMSc. (Statens Serum Institut, Denmark):
Specific Antigens and Assays for Latent TB
- [1a] David Lewinsohn MD, PhD. (Oregon Health & Science University, USA):
The Human Response to Latent Infection with MTB
- [1b] Sandra M. Arend MD, PhD (Leiden University Medical Centre, The Netherlands):
Major Discrepancies Between *M.tuberculosis* - Specific Interferon- γ Assays with Short Versus Prolonged Incubation (*Oral Presentation: Abstract 015*)
- [1c] Morten Ruhwald (Copenhagen University Hospital, Denmark):
Introducing IP-10 as a Specific Diagnosis Marker for Infection with *M.tuberculosis* (*Oral Presentation: Abstract 028*)

Session 2: Latency and the Risk of Active TB (Clinical Aspects): How Many Infected Persons Actually Develop Active Disease?

- [n/a] Peter Godfrey-Faussett BA, MBBS, DTM&H, FRCP (London School of Hygiene and Tropical Medicine, UK):
The Who, Why and When of Developing Tuberculosis
- [2a] Keertan Dheda MB.BCh. FCP(SA) PhD (Royal Free & University College Medical School, UK; University of Cape Town, South Africa):
IFN- γ Release Assays and Treatment of TB Infection: What Can We Learn from these Data?

Session 3: A Re-examination of Pertinent Epidemiology Studies

- [3a] Ken Castro MD, PhD (CDC, Division of Tuberculosis Elimination, USA):
Latency, Dormancy and Persistence: What do Mice Studies Tell Us?
- [3b] Dick Menzies MD, MSc. (McGill University, Canada)
Disagreement: What can we learn from it?

[n/a: Presentation Not Available]

Challenging the 'Dogma' (continued)

Session 4: Public Health Implications of Studies with Assays that Use Highly Specific TB Antigens

- [4a] Andy Vernon MD (CDC, Division of Tuberculosis Elimination, USA):
Public Health Impact of Interferon Gamma Release Assays: A 2007 Perspective
- [4b] Larry Geiter PhD (Aeras Global TB Vaccine Foundation, USA):
Public Health Implications of Studies with Assays that Use Highly Specific TB Antigens
- [4c] M. A. Yassin (Liverpool School of Tropical Medicine, UK):
Could IFN- γ Assays Replace TST Surveys? Reflections from Information from Health Volunteers in a High TB Incidence Country (Oral Presentation: Abstract 039)
- [4d] Debbie-Ann Abrahams (South African TB Vaccine Initiative, University of Cape Town, South Africa):
Performance of QuantiFERON-TB Gold In-tube (QFT-GIT) Test for a Research Application in a Tuberculosis (TB) Endemic Area (Oral Presentation: Abstract 022)
- [4e] Hassan Mahomed (South African TB Vaccine Initiative, University of Cape Town, South Africa):
Preliminary Results on the Use of QuantiFERON-TB Gold (In-tube method) in a Large Cohort Study of TB in Adolescents in South Africa (Oral Presentation: Abstract 008)
- [4f] Antonino Catanzaro MD (University of California, San Diego, USA):
The Value of Sensitivity vs. Specificity

Application of Interferon- γ Assays

Session 5: Health Care Worker Screening with IFN- γ Assays

- [n/a] Madhukar Pai MD, PhD (McGill University, Canada):
Serial Testing with IFN- γ Assays: How Should We Define Conversions, Reversions and Thresholds?
- [5a] Francis Drobniowski MB, BS, MA, PhD, DTM&H, FRCPath (Barts & The London, Queen Mary's School of Medicine & Dentistry, UK):
Russian and British Healthcare Staff and IFN- γ Assays: What's the Difference?
- [5b] Toru Mori MD, PhD (National Institute of Infectious Diseases, Japan):
A Study of Healthcare Worker Screening with IFN-gamma Assays in Japan

Session 6: Performance of the IFN- γ Assays in Contact and Outbreak Investigations

- [6a] Jerry Mazurek MD, PhD (CDC, Division of Tuberculosis Elimination, USA):
Tuberculin Skin Test versus QuantiFERON-TB Gold in U.S. Contact Investigations
- [6b] Thomas Bodmer MD (Universität Bern, Switzerland):
Evaluating TB Contacts: Usefulness of a Whole-Blood IFN- γ Release Assay in a Military Setting
- [n/a] Dr. Paul Vinton (Peninsula Health, Australia):
A Comparison of the Quantiferon-TB Gold-In Tube Assay and the Tuberculin Skin Test for Screening of Health Care Workers in Melbourne, Australia (Oral Presentation: Abstract 062)
- [6c] Sandra M. Arend MD, PhD (Leiden University Medical Centre, The Netherlands):
A Supersized Contact Investigation with Comparison of Two IGRA
- [6d] Madhukar Pai MD, PhD (McGill University, Canada):
Tuberculosis Infection Among Household Contacts in Rural India: Comparison of a Whole-Blood Interferon-gamma Assay with the Tuberculin Skin Test

Application of Interferon- γ Assays (*continued*)

Session 7: Studies Using IFN- γ Assays in Various Settings

- [7a] Giovanni Ferrara MD, PhD (University of Modena & Reggio Emilia, Italy):
Using Interferon- γ Release Assays Day by Day in a Hospital Setting
- [n/a] Monica Losi (University of Modena & Reggio Emilia, Italy): *[presentation not available]*
Diagnosis of Latent Tuberculosis Infection in Patients with Hematological Malignancies: Use of the New IFN- γ Assays (*Oral Presentation: Abstract 051*)
- [7b] Kevin L. Winthrop MD MPH (Oregon Health Sciences University, USA):
Blood vs. Skin Test: Comparison of Two Interferon-gamma Release Assays with the Tuberculin Skin Test in the Diagnosis of MTB Infection Among Renal Dialysis Patients (*Oral Presentation: Abstract 017*)
- [7c] Christian Lienhardt MD, PhD (Institut de Recherche pour le Développement, IRD, France):
Risk Factors for Active Tuberculosis at Month 24 in Household Contacts of Smear Positive TB in Senegal (*Oral Presentation: Abstract 036*)
- [7d] Pernille Ravn MD, PhD (University Hvidovre Hospital, Denmark):
Diagnosis of M.tuberculosis Infection in Vulnerable Groups: Children in High Endemic Regions
- [7e] Naasha J. Talati (Emory University, USA):
Comparison of Tuberculin Skin Test and Interferon- γ Release Assays for Diagnosis of Latent TB Infection Among HIV Positive Persons (*Oral Presentation: Abstract 061*)
- [7f] Cristina Russo (Bambino Gesù Paediatric Hospital, Italy):
Agreement Between Classic Diagnostic Procedures and the New INF- γ Release Assay for Detection of TB Disease in Children
- [7g] Gediminas Matulis MD (Universität Bern, Switzerland):
Performance of an IFN-gamma Assay for the Diagnosis of LTBI in Immunosuppressed Rheumatologic Out-Patients: A Prospective Study.

Session 8: Cost-Effectiveness and Health Care Effectiveness of IFN- γ Assays

- [8a] PD Dr. Roland Diel (University of Düsseldorf, Germany):
Cost-Effectiveness of IGRA Screening for the Treatment of Latent Tuberculosis in Germany
- [8b] Dick Menzies MD, MPH (McGill University, Canada):
A Comparison of the Cost-Effectiveness of Interferon-gamma Release Assays with Tuberculin Skin Testing for Screening Contacts or New Immigrants to Canada
- [8c] Masae Kawamura MD (San Francisco Dept. of Public Health, USA):
The Cost Effectiveness of IGRA Diagnostics: Theoretical and Practical Perspectives
- [8d] Jennifer Grinsdale (San Francisco Dept. of Public Health, USA):
Community Based Tuberculosis Screening Using QuantiFERON-TB Gold: The San Francisco Experience (*Oral Presentation: Abstract 041*)

Poster Abstract Presentations

- Abstract 001: Transient Tuberculosis Infection – Evidence from the Naturally Infected Guinea Pig Model
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- Abstract 002: Screening Health Care Workers (HCW) with QuantiFERON-Gold (QFT-G): Possible False Negative Results in HCW with High Pre-Test Probability of Latent Tuberculosis Infection (LTBI)
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- Abstract 003: Interferon gamma assay results in high-risk tuberculosis patients with single or dual tuberculin skin tests.
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- Abstract 004: Tuberculin skin tests and positive QuantiFERON-TB Gold In-tube assays in healthcare workers, BCG vaccinated at birth, in a country with a low tuberculosis load. Experiences of the University Hospital in Prague (Czech Republic)
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- Abstract 005: Latent tuberculosis infection in health care workers in the University Hospital in Prague (Czech Republic)
Jiri Wallenfels *et al*
- Abstract 006: Comparison of tuberculin skin test and QuantiFERON-TB-GOLD™ for detection of LTBI in Northern California immigrants
S Perry *et al*
- Abstract 007: IFN- γ responses to ESAT-6/CFP10 with repeat testing
Z Agarwal *et al*
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- Abstract 010: Use of QuantiFERON-TB Gold In-Tube Assay to Estimate the Prevalence of *M.tuberculosis* Infection among Injection Drug Users at Risk for HIV in Tijuana, Mexico
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- Abstract 012: Utility of two IFN-gamma tests based on specific Mycobacterium tuberculosis-specific antigens for diagnosis of latent and active tuberculosis
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- Abstract 018: Preliminary data of value of interferon (IFN)- γ blood and fluid tests in diagnosis of tuberculosis
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- Abstract 020: Prevalence of latent tuberculosis infection among Indian healthcare workers: a comparison of conventional and model-based approaches
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- Abstract 022: Performance of QUANTIFERON GOLD-IN-TUBE (QFT GIT) test for research applications in a Tuberculosis (TB) endemic area.
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