

**Biothreat Detection: Designing Novel Methods and  
Assessing Current Systems for  
Detection and Surveillance**

Richard Rothman  
Johns Hopkins Medical Institutions

Abstract

In this session several laboratory platforms being developed for rapid detection of biologic and emerging infectious threats in clinical settings will be described. Specific examples leading up to our current DHS evaluation project will be described from our group, including a real time universal PCR for rapid bacterial identification, and a breath condensate method for detection of exhaled inflammatory markers. Brief examples of other innovative platforms will also be presented. Areas for ongoing study with DHS will be described in the context of existing national programs for organizing both laboratory preparedness (CDC's Laboratory Response Network) and syndromic surveillance (e.g. ESSENCE and Biosense). These studies include preparation of systematic reviews of emerging laboratory technologies, as well as surveys and planned expert conferences, designed to categorize and assess the wide range of laboratory and syndromic detection methods currently in use and under development.