

Project:	Training in Advanced Clinical Laboratory Diagnosis of Infectious Disease (TRACDIS)
Donor:	This study is funded jointly by: Global Emerging Infection Surveillance (GEIS) via a grant administered by the Henry Jackson Foundation Development Partnerships for Higher Education (DePHE), a British Council / Department for International Development initiative via a grant administered by the London School of Hygiene and Tropical Medicine
Duration:	November 2010 - May 2011
Objectives:	At the present time, infectious agents of viral, bacterial or parasitological origin remain the predominant cause of illness in Afghanistan. Some of these pathogens are difficult or impossible to diagnose or monitor with traditional methods and require instead the use of complex diagnostic techniques such as the Polymerase Chain Reaction (PCR), Enzyme-linked immuno-sorbent assays (ELISA) or culture. The first laboratory capable of performing such techniques in Kabul opened in 2004, but training in these methods was not available in Afghanistan. The TRACDIS program was developed to fill this gap, by providing in-situ comprehensive training in advanced diagnostic techniques for medical and veterinary laboratory technologists.
Design:	The TRACDIS program comprises a nine-month long course in molecular, serological and culture techniques for the surveillance, diagnosis and monitoring of infectious diseases. The course is divided into three segments; term 1 covers a theoretical and practical introduction to the techniques, followed by a series of practical laboratory rotations in term 2 and finally mini-research projects which are carried out by the students at their home institutions in term 3. The entire program is conducted in Kabul in affiliation with Kabul Medical University.
Findings:	Eight students have graduated from the first TRACDIS program, of which four were from the Central Public Health Laboratory, one from Kabul Medical University, one from the National Malaria and Leishmaniasis Control Program, one from Kabul University Veterinary Faculty and one veterinary technologist who will shortly take up employment at the Central Veterinary laboratory. Due to the success of the program, further funding were secured for an additional TRACDIS 2 training program.
Publication/Links:	Presentations from TRACDIS student conference: An Introduction to advanced diagnostic techniques – Amy Mikhail A brief history of advanced diagnostics in Afghanistan – Rohullah Zekria Overview of the TRACDIS program – Amy Mikhail The challenges of diagnosing brucellosis in animals and humans – Arezo Adeli Sample preparation for advanced diagnostic tests – Mohammad Harun Sharifi Fundamentals of the ELISA technique: the rotavirus example – Rahima Sultanzada Using PCR to monitor insecticide resistance in mosquitoes – Abdul Ali Ahmadi *Runner up Fundamentals of molecular diagnostics – Ahmad Javed Rahmani

	Molecular diagnosis of influenza viruses – Homayoun Mehran Molecular diagnosis of Hepatitis B virus – Mohammad Kawoos Yaqoubi *Prize winner Malaria confirmatory diagnosis with PCR – Shams ur Rahman
--	--