



***The Center for Point-of-Care Diagnostics for Global Health (GHDx)***  
**Presents the**  
**Third Annual GHDx Course 1 on Point-of-Care Diagnostics for Global Health**  
**June 28, 2010 - July 2, 2010,**  
**University of Washington, Foege Hall N130A Seattle, Washington, USA**  
<http://www.path.org/dxcenter/index.php>

**Day 1. Monday, June 28, 2010**

8:00 - 8:15	Outline of course and welcome.	Pat Totten and Karen Stephens, Course Directors
8:15 - 9:00	Introductions of students and discussion of course work.	
9:00 - 10:30	HIV: Global significance, epidemiology, progression to AIDS, impact of treatment, mother to child transmission, current diagnostics.	Bob Coombs
10:30 - 11:00	Discussion/break	
11:00 - 12:30	Welcome and introduction to activities of the Center for Point of Care Diagnostics for Global Health. Impact of the Center, opportunities available in other cores.	Bernhard Weigl, Center Director
12:30 - 12:45	Discussion/break	
12:45 - 1:45	Lunch	
1:45 - 2:00	Introduction to STD diagnostics initiative literature reviews <a href="http://csde.washington.edu/WHOSTIliterature_reviews/">http://csde.washington.edu/WHOSTIliterature_reviews/</a>	Pat Totten
2:00 - 3:30	Student presentations #1 - who you are, what you do, and what you need.	
3:30 - 4:30	Future challenges and opportunities in global health and infectious diseases. Implications for POC diagnostics.	King Holmes
4:30 - 5:00	Discussion/break	

**Day 2. Tuesday, June 29, 2010**

8:30 - 9:15	<b>STD syndromes.</b>	<b>Julie Dombrowski</b>
9:15 - 9:45	Discussion/break	
9:45 - 11:00	<b>HIV/STI Prevention in developing countries: role of multi-component approach, including syndromic management, laboratory diagnostic screening with specific treatments, and periodic presumptive therapy.</b>	<b>King Holmes</b>
11:00 - 11:30	Discussion/break	
11:30 - 12:30	Lunch	
12:30 - 1:30	<b>Student presentations #2.</b>	
1:30 - 2:30	<b>Role and needs for POC testing for global health.</b>	<b>Rosanna Peeling, Keynote Speaker</b>
2:30 - 3:00	Discussion/break	
3:00 - 4:30	<b>Student presentations #3</b>	
4:30 - 5:20	Return to dorm	
5:20	Meet bus at dorm for trip to PATH	
6:00 - 8:00	<b>Reception and tour of PATH, <a href="http://www.path.org">www.path.org</a></b>	<b>Host: Bernhard Weigl, Center Director</b>

**Day 3: Wednesday, June 30, 2010**

8:00 - 9:00	<b>Introduction to the clinical laboratory process I.</b>	<b>Karen Stephens</b>
9:00 - 9:15	Questions/discussion/break	
9:15 - 10:15	<b>Introduction to the clinical laboratory process II.</b>	<b>Mike Astion</b>
10:15 - 10:30	Discussion/break	
10:30 - 12:00	<b>Student presentations # 4</b>	
12:00 - 1:00	Lunch	
1:00 - 2:00	<b>Challenges of implementing sustainable diagnostics in low-resource settings: Agencies supporting global health, QC/QA in remote settings, IMCI and IMAI guidelines.</b>	<b>Robert Martin</b>
2:00 - 2:15	Discussion/break	
2:15 - 3:00	<b>Clinical needs assessment in low resource settings: Critical government contacts, surveys, challenges for introducing POC tests.</b>	<b>Tala de los Santos</b>
3:00 - 3:15	Discussion/break	
3:15 - 5:15+	<b>Student presentations #4</b>	

**Day 4: Thursday, July 1, 2010**

8:30 - 9:15	<b>Strategies for developing a POC diagnostic test: From conception, development, validation, to implementation.</b>	<b>Roger Peck</b>
9:15 - 9:30	Discussion/break	
9:30 - 10:15	<b>Case study: challenges of developing a POC diagnostic test.</b>	<b>Paul Eder</b>
10:15 - 10:45	Discussion/break	
10:45 - 11:30	<b>Malaria: Clinical syndrome, epidemiology, morbidity/mortality, global impact, life cycle of organism.</b>	<b>Sean Murphy</b>
11:30 - 11:45	Discussion/break	
11:45 - 12:45	Lunch	
12:45 - 1:30	<b>Challenges in diagnosis of malaria and development of a POC test: When diagnostics are needed, gold standard vs. rapid tests, antibiotic resistance and WARN (world anti-malaria resistance network).</b>	<b>Gonzalo Domingo</b>
1:30 - 2:00	Discussion/break	
2:00 - 2:45	<b>Novel strategies for POC diagnostics and how they work. New diagnostic platforms and approaches.</b>	<b>Paul Yager</b>
2:45 - 3:15	Discussion/break	
3:15 - 4:45	<b>Student presentations #5</b>	
4:45	Return to dorms before picnic (or walk there)	
5:30	Pick up at dorms for picnic	
6:00 - ?	<b>Course Social: Magnuson Park (transportation provided)</b>	

**Day 5: Friday, July 2, 2010**

8:00 - 9:30	<b>Tuberculosis and TB diagnostics: Global significance, epidemiology, clinical presentation, treatment, and diagnostic challenges.</b>	Tom Hawn
9:30 - 10:00	Discussion/break	
10:00 - 10:45	<b>Diagnostic development of neglected diseases in a commercial environment: Motivation, discovery, and implementation.</b>	Syamal Raychaudhuri
10:45 - 11:15	Discussion/break	
11:15 - 12:30	Lunch	
12:30 - 1:15	<b>Syphilis: Clinical syndrome, natural history, global significance and diagnostics.</b>	Sheila Lukehart
1:15 - 1:45	Discussion/break	
1:45 - 2:30	<b>Challenges for POC diagnostics in global health: Appropriate diagnostics for use in low-resource settings, persuading marketers, clinicians, and health care providers of the value of POC diagnostic tests.</b>	Bernhard Weigl
2:30 - 3:00	Discussion/break	
3:00 - 5:00	<b>Announcements, discussion, certificate distribution, and social hour.</b>	Bernhard Weigl Roger Peck, Gonzalo Domingo, Tala de los Santos, Pat Totten, and Karen Stephens

## Faculty

Mike Astion, MD, PhD	Professor, Department of Laboratory Medicine, Divisions of Immunology and Biomedical Informatics, UW
Robert W. Coombs, MD, PhD	Professor, Departments of Laboratory Medicine, Division of Virology, and of Medicine, Division of Allergy and Infectious Diseases, UW
Tala de los Santos, MBA, MS	Commercialization Officer, PATH, Seattle, WA
Gonzalo Domingo PhD <sup>3</sup>	Research Scientist, PATH, Seattle, WA
Julie Dombrowski, MD	Senior Fellow, Department of Medicine, Division of Allergy and Infectious Diseases, UW
Paul Eder, PhD	Director, Assay Development, Qiagen, Inc. Gaithersburg, MD
Tom Hawn, MD	Associate Professor, Medicine, Allergy and Infectious Diseases
King Holmes, MD, PhD	Wm. H. Foege Chair and Professor, Department of Global Health, Director of Center for AIDS and STD; Department of Medicine, Division of Allergy and Infectious Diseases, UW
Sheila Lukehart, PhD	Professor, Department of Medicine, Division of Allergy and Infectious Diseases, UW
Robert Martin, MPH, PhD	Director, Laboratory Systems Development I-TECH, UW
Sean Murphy, MD, PhD	Chief Resident, Department of Laboratory Medicine, UW
Roger Peck, BS <sup>3</sup>	Research Scientist, PATH
Rosanna Peeling, PhD	<b>Keynote Speaker.</b> Professor and Chair of Diagnostics Research, Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine
Syamal Raychaudhuri, PhD	CEO, InBios, Seattle, WA
Matt Steele PhD, MPH <sup>3</sup>	Clinical and Field Research Coordinator, PATH, Seattle, WA
Karen Stephens, PhD <sup>1,3</sup>	Research Professor, Department of Laboratory Medicine, Divisions of Genetics and of Molecular Microbiology, UW
Pat Totten, PhD <sup>1,3</sup>	Research Associate Professor, Department of Medicine, Division of Allergy and Infectious Diseases, Adjunct Department of Global Health, UW
Bernhard Weigl, PhD <sup>2</sup>	Group Leader, Diagnostics Development Teams, PATH, Seattle, WA
Paul Yager, PhD	Professor and Chair, Bioengineering Dept., UW

<sup>1</sup>Directors of POC Diagnostics Course; <sup>2</sup>Director and <sup>3</sup>Leaders of the Center for Point-of-Care Diagnostics for Global Health (GHDx); <sup>4</sup>University of Washington, Seattle, WA, USA; <sup>5</sup>PATH, Program for Appropriate Technology for Health