



**The Center for Point-of-Care Diagnostics for Global Health (GHDx)**  
**presents the**  
**Fourth Annual GHDx Course 1 on Point-of-Care Diagnostics for Global Health**  
**June 27—July 1, 2011**  
**University of Washington, Foege Hall N130A, Seattle, Washington, USA**  
<http://www.path.org/dxcenter/index.php>

**Day 1. Monday, June 27, 2011**

8:30 - 8:45	Outline of course and welcome	Pat Totten and Karen Stephens, Course Directors
8:45 - 9:30	Introductions of participants and discussion of course work	
9:30 - 10:15	Welcome and introduction to activities of the Center for Point-of-Care Diagnostics for Global Health. Impact of center and opportunities available in other cores.	Bernhard Weigl, GHDx Center Director
10:15 - 10:30	Discussion/Break	
10:30 - 11:15	Challenges for POC diagnostics in global health: Appropriate diagnostics for use in LRS, persuading marketers, clinicians, and health care providers of the value of POC diagnostic tests.	Bernhard Weigl
11:15 - 11:30	Discussion/Break/Load student presentations on computer	
11:30 - 1:00	Lunch and load student presentations on computer	
1:00 - 1:45	Diagnostics to improve global health: Unmet needs and opportunities	Rosanna Peeling
1:45-2:15	Discussion/break	
2:15 - 4:00	Presentations of course participants #1 - who you are, what you do, and what you need	
4:00 - 4:45	Global health: Current and future challenges	King Holmes
4:45 - 5:00	Discussion/Break	

**Day 2: Tuesday, June 28, 2011**

8:30 - 9:00	Tour through course website, an online resource for networking and diagnostic information, and introduction of STD literature review site	Karen Stephens and Jane Kuypers
9:00 - 10:15	Introduction to the clinical laboratory process and POC testing	Karen Stephens and Pat Totten
10:15 - 10:30	Break/Discussion	
10:30 - 12:00	Presentations of course participants # 2	
12:00 - 1:00	Lunch	
1:00 - 2:00	Challenges of implementing sustainable diagnostics in LRS	Robert Martin
2:00 - 2:15	Break/Discussion	
2:15 - 3:00	Needs assessments in LRS	Noah Perin
3:00 - 3:15	Break/Discussion	
3:15 - 4:30	Presentations of course participants # 3	
4:30 - 5:20	Return to dorm	
5:20	Meet bus at dorm for trip to PATH	
6:00 - 8:00	Reception and tour of PATH, <a href="http://www.path.org">www.path.org</a>	Hosts: PATH team

**Day 3. Wednesday, June 29, 2011**

8:30 - 9:15	STD syndromes	Julie Dombrowski
9:15 - 9:45	Discussion/Break	
9:45 - 11:00	Current role of diagnostics in prevention and treatment of STIs in low- and middle-income countries	King Holmes
11:00 - 11:30	Discussion/Break	
11:30 - 12:30	Lunch	
12:30 - 1:30	Presentations of course participants #4	
1:30 - 3:00	HIV/AIDS global significance, epidemiology, disease progression, impact of treatment, mother-to-child transmission, current diagnostics	Joanne Stekler
3:00 - 3:30	Discussion/Break	
3:30 - 4:00	Presentations of course participants #5	
4:00 - 4:45	Syphilis: Clinical syndrome, natural history, global significance and diagnostics	Sheila Lukehart
4:45 - 5:00	Discussion/Break	

**Day 4: Thursday, June 30, 2011**

8:30 - 9:15	Strategies for developing a POC diagnostic test: From conception, development, and validation to implementation	Roger Peck
9:15 - 9:30	Break/discussion	
9:30 - 10:15	Case study: Challenges of developing a POC diagnostic test	Paul Eder
10:15-10:45	Break/Discussion	
10:45 -11:45	Development and application of POC tests for chronic diseases. Example—diabetes: Clinical syndrome, epidemiology, treatment, gold-standard and POC diagnostic tests	Brent Wisse, Jennnifer Drake and Kenneth Hawkins
11:45 - 12:00	Break/Discussion	
12:00 - 1:30	Lunch	
1:30 - 3:00	Tuberculosis and TB diagnostics: Global significance, epidemiology, clinical presentation, treatment, and diagnostic challenges	Tom Hawn
3:00 - 3:15	Break/Discussion	
3:15 - 4:45	Presentations of course participants #6	
4:45	Return to dorms before picnic	
5:30	Pick up at dorms for picnic	
6:00 - ?	Course Social: Magnuson Park (Transportation provided)	

**Day 5: Friday, July 1, 2011**

8:30 - 9:15	Malaria: Clinical syndrome, epidemiology, morbidity/mortality, global impact, life cycle of organism	Sean Murphy
9:15 - 9:30	Break/Discussion	
9:30 - 10:15	Challenges in diagnosis of malaria and development of a POC test: When diagnostics are needed, gold-standard vs. rapid tests, antibiotic resistance and World Anti-Malaria Resistance Network	Gonzalo Domingo
10:15 - 10:30	Break/Discussion	
10:30 - 11:15	The use of IMAI and IMCI syndromic management guidelines to reveal the need for POC diagnostic tests	Eoin West
11:15 - 11:30	Discussion/Break	
11:30 - 12:30	Lunch	
12:30 - 1:15	Novel strategies for POC diagnostics and how they work	Elaine Fu and Barry Lutz
1:15 - 1:45	Break/Discussion	
1:45 - 2:30	ITECH - global perspective, goals, and challenges	Scott Barnhart
2:30-3:00	Break/Discussion	
3:00 - 5:00	Announcements, summary and discussion, certificate distribution, and social hour	PATH team, Pat Totten, and Karen Stephens

## Faculty

Scott Barnhart, MD	Professor, Departments of Medicine and Global Health, Division-Director Health Systems Strengthening, ITECH
Gonzalo Domingo, PhD <sup>3</sup>	Research Scientist, PATH, Seattle, WA
Julie Dombrowski, MD	Senior Fellow, Department of Medicine, Division of Allergy & Infectious Diseases, UW
Jennifer Drake, MPH	Senior Program Associate, PATH
Paul Eder, PhD	Former Director, Assay Development, Qiagen, Inc., Gaithersburg, MD
Elain Fu, PhD	Research Assistant Professor, Department of Bioengineering, UW
Kenneth Hawkins, PhD	Research Scientist, PATH
Tom Hawn, MD	Associate Professor, Medicine, Division of Allergy and Infectious Diseases, UW
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 & Infectious Diseases, UW
Jane Kuypers, PhD	Senior Research Scientist, Department of Laboratory Medicine, UW
Sheila Lukehart, PhD	Professor, Departments of Global Health and Medicine (Division of Allergy & Infectious Diseases), Adjunct in Microbiology and Oral Biology, and Dean of Research and Graduate Education, Harborview Medical Center, UW
Barry Lutz, PhD	Research Assistant Professor, Department of Bioengineering, 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
Noah Perin, MBA, MPP	Commercialization Officer, PATH
Joanne Stekler, MD	Assistant Professor, Department of Medicine, Division of Allergy & Infectious Diseases
Karen Stephens, PhD <sup>1,3</sup>	Research Professor, Department of Laboratory Medicine, Divisions of Genetics and Molecular Microbiology, UW
Pat Totten, PhD <sup>1,3</sup>	Research Professor, Department of Medicine, Division of Allergy & Infectious Diseases; Adjunct, Department of Global Health, UW
Bernhard Weigl, PhD <sup>2</sup>	Group Leader, Diagnostics Development Teams, PATH
Eoin West, MD	Assistant Professor, Department of Medicine, Division of Pulmonary and Critical Care, Adjunct, Department of Global Health
Brent Wisse, MD	Associate Professor, Division of Metabolism, Endocrinology and Nutrition, Department of Medicine, 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; <sup>4</sup>University of Washington, Seattle, WA, USA; <sup>5</sup>PATH