NCI-NIBIB Point of Care Technologies for Cancer Conference
January 8-9, 2014
Natcher Auditorium, NIH campus– Building 45
Bethesda, Maryland

January 8

7:30 am – 5:00 pm  Registration

Opening Session

8:00 – 8:15  Welcome from the Organizing Committee (Christine A. Kelley, PhD, NIBIB)

8:15 – 8:30  Opening Remarks:
Roderic I. Pettigrew, PhD, MD, Director, NIBIB
Douglas Lowy, MD, Deputy Director, NCI

8:30 – 9:00  Keynote Address 1:
Nanotechnology: Reaching New Levels of Diagnostic Sensitivity for Early Stage Disease Detection,
Lance A. Liotta, MD, PhD, George Mason University

9:00 – 9:30  Keynote Address 2:
New Opportunities for Point-of-Care Technologies to Improve Global Efforts to Effectively Detect
and Treat Cancer, Rebecca Richards-Kortum, PhD, Rice University

Session I: Breast Cancer
(Moderators: Nirmala Ramanujam, PhD, Duke University and Avi Rasooly, PhD, NCI)

Clinical Challenges and the Need for Point of Care Technologies

9:30 – 9:50  Breast Cancer Pathology, Jane E. Brock, MBBS, PhD, Brigham and Women's Hospital, Harvard Medical School

Imaging POC Technologies

9:50 – 10:10  Label-Free Coherent Optical Imaging for Point-of-Care Screening and Diagnostics, Guillermo L. Monroy, MS, University of Illinois at Urbana-Champaign

10:10 – 10:30  Break

In vitro Diagnostic or Monitoring POC Technologies

10:30 – 10:50  Breast Cancer Molecular Diagnostics, Jeffrey Marks, PhD, Duke University
Emerging POC Technologies

10:50 – 11:10  Smart Reagent Nanotechnologies for POC Diagnostics, Patrick Stayton, PhD, University of Washington

11:10 – 11:30  Optical Spectroscopy and Spectral Imaging; Examples for Point of Care in Women’s Health, Nirmala Ramanujam, PhD, Duke University

11:30 – 11:50  Ultraportable Near-infrared Optical Scanner (NIROS) for Breast Pre-screening, Anuradha Godavarty, PhD, Florida International University

11:50 – 12:10  Cellphone based Imaging, Sensing and Diagnostics for Global Health, Aydogan Ozcan, PhD, University of California, Los Angeles

12:10 – 12:30  Panel Discussion

12:30 – 2:00  Lunch on your own and Poster and Technology Demonstration Session

2:00 – 3:00  Selected Posters & Technology Presentations (Moderator: Miguel Ossandon, MSc, NCI)

Session II: Prostate Cancer
(Moderators: Jacob Kagan, PhD, NCI and John T Wei, MD, University of Michigan)

Clinical Challenges and the Need for Point of Care Technologies
3:00 – 3:20  Prostate Cancer Early Detection, John T Wei, MD, University of Michigan

3:20 – 3:40  Prostate Cancer Challenges, Willie Underwood, MD, Roswell Park Cancer Institute

Imaging POC Technologies
3:40 – 4:00  Biophotonics Methods for Cancer Risk Assessment in Primary Care Settings, Vadim Backman, PhD, Northwestern University

In vitro Diagnostic or Monitoring POC Technologies
4:00 – 4:20  Point of Care Analysis of Prostate and Ovarian Cancer, John McDevitt, PhD, Rice University

Emerging POC Technologies
4:20 – 4:40  Simplifying Design: Streamlined yet Multi-stage Assays for Protein Biomarker Diagnostics, Amy Herr, PhD, University of California, Berkeley

4:40 – 5:00  Panel Discussion

5:00  Adjourn for the day
January 9

7:30 am – 5:00 pm  Registration

**Plenary Talk:** (Moderator, Steven Krosnick, MD, NIBIB)

8:30 – 9:20  Bioengineering and Clinical Applications of Circulating Tumor Cell Chip
Mehmet Toner, PhD, Massachusetts General Hospital and Daniel A. Haber, MD, PhD, Massachusetts General Hospital

**Session III: Gastrointestinal Malignancies**
(Moderators: David Erickson, PhD, Cornell University and Brenda Korte, PhD, NIBIB)

9:20 – 9:40  Clinical Challenges and the Need for Point of Care Technologies
Gastrointestinal Malignancies, Stephen Meltzer, MD, Johns Hopkins University

9:40 – 10:00  In vitro Diagnostic or Monitoring Point of Care Technologies
Population-based Colorectal Screening, Uri Ladabaum, MD, Stanford University

9:40 – 10:00  Emerging Point of Care Technologies
Lab-on-a-Syringe Diagnosis of Kaposi’s Sarcoma, David Erickson, PhD, Cornell University

10:00 – 10:50  Break

10:50 – 11:10  Micro- and Nano-scale Technologies for Applications in Medicine at the Point of Care, Utkan Demirci, PhD, Brigham and Women's Hospital, Harvard Medical School

11:10 – 11:30  Cancer Molecular Imaging, Peter Choyke, MD, NCI

11:30 – 11:50  Panel Discussion - Gastrointestinal Malignancies

11:50 – 2:00  Lunch on your own and Poster and Technology Demonstration Session

2:00 – 3:30  Networking Sessions (concurrent)
Balcony B – Breast Cancer and Point of Care Technologies
Balcony C – Prostate Cancer and Point of Care Technologies
Main Auditorium – GI Malignancies and Point of Care Technologies

3:30 – 3:50  Break

3:50 – 5:00  Funding Opportunities for POC Technologies for Cancer
(Moderator: Jennifer Couch, PhD, NCI)

Richard Conroy, PhD, NIBIB
Houston Baker, PhD, NCI, Division of Cancer Treatment and Diagnosis
Miguel Ossandon, MSc, NCI, Division of Cancer Treatment and Diagnosis
Jacob Kagan, PhD, NCI, Division of Cancer Prevention
Ming Zhao, PhD, NCI, SBIR Center

Version 01/02/2014
Cancer Detection, Diagnosis, and Treatment Technologies for Global Health  
Natcher Auditorium, NIH Campus– Building 45  
Bethesda, Maryland

January 10, 2014

8:00 am – 10:00am  Registration

Opening Session

8:30 – 8:40  Opening Remarks: Edward L. Trimble, MD, MPH, NCI

8:40 – 9:10  Keynote Address: Cancer in Global Health: Implementing Technology to Span the Capacity Gap, Benjamin O. Anderson, MD, Fred Hutchinson Cancer Research Center

Session I: Detection, Diagnosis, and Treatment Technologies for Global Health  
(Moderators: Jose Jeronimo, MD, PATH and Miguel Ossandon, MSc, NCI)

9:10 – 9:25  Low Cost Point of Care Technologies for Global Health, Hugh A. Bruck, PhD, University of Maryland

9:25 – 9:40  Mobile Devices for Disease Diagnosis in Global Health, Shan X. Wang, PhD, Stanford University

9:40 – 9:55  Low Cost Imaging Device for Kaposi’s Sarcoma: Experience in Mozambique, Yu-Tsuen Liu, MD, PhD, University of California, San Diego

9:55 – 10:10  Ultrasound on a Smartphone, Sailesh Chutani, PhD, Mobisante

10:10 – 10:25  Treatment of Cervical Pre-cancer: Options for Areas with Limited Resources, Jose Jeronimo, MD, PATH

10:25 – 10:50  Break

Session II: Applying Cancer Programs in Global Health Settings  
(Moderators: Miriam Cremer, MD, MPH, University of Pittsburgh and Ben Prickril, PhD, NCI)

10:50 – 11:10  A New Algorithm for Cervical Cancer Screening and Treatment: Public Sector HPV DNA Testing using CareHPV, Miriam Cremer, MD, MPH, University of Pittsburgh

11:10 – 11:30  Cancer Device Development for Global Health, Vivian Coates, MBA, ECRI

11:30 – 11:50  Challenges of Developing Research Collaborations in Low and Middle-Income Countries, Gray Handley, MSPH, NIAID

11:50 – 12:10  Developing Clinical Programs in Africa, Carol Harris, MD, Albert Einstein College of Medicine

12:10 – 12:30  Panel Discussion (Moderator, Houston Baker, PhD, NCI)

12:30 – 1:00  Funding Opportunities in Global Health (Moderators: Miguel Ossandon, MSc, NCI and Ming Zhao, PhD, NCI)