

# Agenda

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## Day 1: Monday, October 25

- 7:30 a.m. - 8:00 a.m.      **Registration and Continental Breakfast**
- Poster Session Setup**
- 8:00 a.m. - 8:05 a.m.      **Welcome and Meeting Charge** *Cyril Magnin Ballroom*  
Richard Aragon, Ph.D.  
Director  
Innovative Molecular Analysis Technologies Program  
National Cancer Institute, NIH
- 8:05 a.m. - 8:50 a.m.      **IMAT 2010: State of the Program: Where We Are, Where We've Been, and Where We Are Going**  
Carolyn C. Compton, M.D., Ph.D.  
Director  
Office of Biorepositories and Biospecimen Research  
National Cancer Institute, NIH
- 8:50 a.m. - 9:10 a.m.      **Implementation of Innovative RNA Sample Quality Control Methods**  
James C. Willey, M.D.  
University of Toledo
- 9:10 a.m. - 10:40 a.m.      **Session I: Breakthroughs in Cancer Detection and Prevention: Scientific and Technological Achievements in the Early Detection of Cancer**
- Moderators: Lynn R. Sorbara, Ph.D.  
   Division of Cancer Prevention  
   National Cancer Institute, NIH
- Paul D. Wagner, Ph.D.  
   Division of Cancer Prevention  
   National Cancer Institute, NIH
- 9:10 a.m. - 9:40 a.m.      ***Spatial-Domain Low-Coherence Quantitative Phase Microscopy for Cancer Detection***  
Yang Liu, Ph.D.  
University of Pittsburgh
- 9:40 a.m. - 10:10 a.m.      ***Fabrication of a Nanocoaxial Biosensor for Detection of Cancer Biomarkers***  
Thomas C. Chiles, Ph.D.  
Boston College
- 10:10 a.m. - 10:40 a.m.      ***Efficient Methods for Profiling Allele-Specific DNA Methylation in Cancer Precursor Tissues***  
Benjamin Tycko, M.D., Ph.D.  
Columbia University

10:40 a.m. - 11:00 a.m.	<b>Coffee Break</b>
11:00 a.m. - 12:30 p.m.	<p><b>Session II: Breakthroughs in Cancer Treatment and Diagnosis: Scientific and Technological Innovations to Enable More Effective Individualized Approaches to Cancer Diagnostics and Care</b></p> <p>Moderator: Avi Rasooly, Ph.D. Division of Cancer Treatment and Diagnosis National Cancer Institute, NIH</p>
11:00 a.m. - 11:30 a.m.	<p><b><i>DNA Methylation Profiling From Fixed Melanoma Tissues</i></b> Nancy E. Thomas, M.D., Ph.D. University of North Carolina</p> <p>Sharon N. Edmiston University of North Carolina</p>
11:30 a.m. - 12 noon	<p><b><i>Single-Cell Analysis Reveals Cellular Heterogeneity of Cancer and Normal Cell Lines</i></b> John F. Zhong, Ph.D. University of Southern California</p>
12 noon - 12:30 p.m.	<p><b><i>Developing a Single-Cell Growth Assay Platform for Monitoring Response to Cancer Therapies</i></b> Scott Manalis, Ph.D. Massachusetts Institute of Technology</p>
12:30 p.m. - 1:30 p.m.	<b>Lunch</b>
1:30 p.m. - 2:15 p.m.	<p><b>Keynote:</b> <b><i>Concept, Challenges, and Paradigms in Molecularly Informed Cancer Care</i></b> Joe W. Gray, Ph.D. Lawrence Berkeley National Laboratory</p>
2:15 p.m. - 3:45 p.m.	<p><b>Session III: Breakthroughs in Integrated Cancer Biology and Tumor Microenvironment: Technologies for Forming and Building the Foundations of Molecular Medicine</b></p> <p>Moderators: J. Randy Knowlton, Ph.D. Division of Cancer Biology National Cancer Institute, NIH</p> <p>Jerry Li, Ph.D. Division of Cancer Biology National Cancer Institute, NIH</p>
2:15 p.m. - 2:45 p.m.	<p><b><i>Development of a Nanoscale Calorimeter</i></b> Dale N. Larson, M.S. Draper Laboratory</p>

2:45 p.m. - 3:15 p.m.      ***Genetically Encoded Photo-Crosslinking Approaches to Map Cancer Signaling Pathways***  
Scott Soderling, Ph.D.  
Duke University

3:15 p.m. - 3:45 p.m.      ***Defining Epigenetic Proteomes Using Novel Crosslinking Agents***  
Lucy Ann Godley, M.D., Ph.D.  
University of Chicago

3:45 p.m. - 4:00 p.m.      **Break**

4:30 p.m. - 6:00 p.m.      **Poster Session and Reception**      *Cyril Magnin Foyer*

## **Day 2: Tuesday, October 26**

8:00 a.m. - 8:30 a.m.      **Continental Breakfast**

8:30 a.m. - 8:40 a.m.      **Recap of Day One**      *Cyril Magnin Ballroom*  
Richard Aragon, Ph.D.  
Director  
Innovative Molecular Analysis Technologies Program  
National Cancer Institute, NIH

8:40 a.m. - 10:35 a.m.      **Session IV: The Science of Team Science: Finding, Making, and Keeping Strategic Technological Partnerships**

Moderator: Richard Aragon, Ph.D.  
Director  
Innovative Molecular Analysis Technologies Program  
National Cancer Institute, NIH

8:40 a.m. - 9:10 a.m.      ***The Biomarkers Consortium: Lessons Learned***  
Shawnmarie Mayrand-Chung, J.D., Ph.D.  
Office of Science Policy Analysis  
Office of the Director, NIH

9:10 a.m. - 9:40 a.m.      ***The Science of Team Science: Why Bother With Return on Investment Analysis?***  
Stefano Bertuzzi, Ph.D.  
Office of Science Policy Analysis  
Office of the Director, NIH

9:40 a.m. - 10:05 a.m.      ***NIH's View of Public-Private Partnerships***  
Barbara B. Mittleman, M.D.  
Office of Science Policy Analysis  
Office of the Director, NIH

10:05 a.m. - 10:35 a.m.	<b><i>NCI SBIR Funding Opportunities to Commercialize New Innovations</i></b> Deepa Narayanan, M.S. National Cancer Institute, NIH	
10:35 a.m. - 11:00 a.m.	<b>Break</b>	
11:00 a.m. - 12:30 p.m.	<b>Session V: Breakthroughs in Cancer Control and Population Sciences: Technologies for Risk Assessment in Populations</b>  Moderator: Rao L. Divi, Ph.D. Division of Cancer Control and Population Sciences National Cancer Institute, NIH	
11:00 a.m. - 11:30 a.m.	<b><i>Evaluation of Ultra-High-Throughput qPCR Platforms for MicroRNA Profiling: Implications for Profiling Plasma MicroRNAs in Pancreatic Cancer Patients</i></b> Thomas D. Schmittgen, Ph.D. Ohio State University	
11:30 a.m. - 12 noon	<b><i>High-Resolution Optical Molecular Cytogenetic Analysis of Fresh and Archival Tissues Using Spread Chromatin Arrays</i></b> Heinz-Ulli Weier, Ph.D., M.S. Lawrence Berkeley National Laboratory	
12 noon - 12:30 p.m.	<b><i>MMPA: A Novel Method for Simultaneous Detection of Multiple Methylated Sequences in a Large Background of Unmethylated Sequences</i></b> Baochuan Guo, Ph.D. GLC Biotechnology, Inc	
12:30 p.m. - 1:30 p.m.	<b>Lunch</b>	
1:30 p.m. - 2:00 p.m.	<b>Poster Session</b>	<i>Cyril Magnin Foyer</i>
2:00 p.m. - 3:00 p.m.	<b>Session VI: From Lab to Market: Nontraditional Paradigms and Strategies in Technology Dissemination and Commercialization (Latest IMAT Success Stories)</b>  Moderator: Richard Aragon, Ph.D. Director Innovative Molecular Analysis Technologies Program National Cancer Institute, NIH	<i>Cyril Magnin Ballroom</i>
2:00 p.m. - 2:30 p.m.	<b><i>RainDance Technology: Commercialization of Droplet Microfluidics</i></b> Darren R. Link, Ph.D. RainDance Technologies, Inc.	

2:30 p.m. - 3:00 p.m.

***Single-Molecule Analysis and Whole Genome Amplification  
Technologies Based on Strand-Displacing DNA Polymerases***

Paul Lizardi, Ph.D.  
Yale University

3:00 p.m. - 3:30 p.m.

**Closing Remarks**

Richard Aragon, Ph.D.  
Director  
Innovative Molecular Analysis Technologies Program  
National Cancer Institute, NIH

3:30 p.m.

**Meeting Adjourned**

