# Agenda

## October 11, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>12:30pm-7:00pm</td>
<td>Optional tour to Washington DC</td>
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## October 12, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:55am</td>
<td>Bus Pick-up: Hilton Washington Dulles</td>
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<tr>
<td>8:10am</td>
<td>Bus Pick-up: Comfort Suites Manassas</td>
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<tr>
<td>8:15am-9:00am</td>
<td>Registration</td>
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### WELCOME

<table>
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<tr>
<th>Time</th>
<th>Name</th>
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<tbody>
<tr>
<td>9:00am-9:30am</td>
<td>Lance Liotta, MD, PhD</td>
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<tr>
<td>9:05am-9:30am</td>
<td>Emanuel Petricoin, PhD</td>
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### KEYNOTE ADDRESS

<table>
<thead>
<tr>
<th>Time</th>
<th>Name</th>
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<tbody>
<tr>
<td>9:30am-10:00am</td>
<td>Joyce A. O’Shaughnessy, MD</td>
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### RPPA: THE GATEWAY TO PRECISION MEDICINE OF THE FUTURE

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:00am-10:40am</td>
<td>&quot;A New Frontier for Molecular Profiling of Bone&quot; Virginia Espina, PhD, MT (ASCP) George Mason University, Manassas, Virginia, USA</td>
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<tbody>
<tr>
<td>9:30am-10:00am</td>
<td>&quot;Confessions of a Breast Cancer Splitter and Therapeutic Implications&quot; Baylor University Medical Center, Dallas, Texas; Baylor Charles A. Sammons Cancer Center, Texas Oncology, Dallas Texas, USA</td>
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### RPPA: THE GATEWAY TO PRECISION MEDICINE OF THE FUTURE

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<td>&quot;A New Frontier for Molecular Profiling of Bone&quot; Virginia Espina, PhD, MT (ASCP) George Mason University, Manassas, Virginia, USA</td>
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</table>
10:10am-10:20am  “From Dots to Data: Printing and Staining RPPA”  Satoshi Nishizuka, MD, PhD  Iwate Medical University, Morioka, Iwate, Japan

10:20am-10:30am  “Building RPPA Data into Cancer Signaling Networks”  Adam Byron, PhD  Edinburgh Cancer Research UK Centre, Edinburgh, United Kingdom

10:30am-10:40am  Q&A

10:40am-11:00am  Coffee Break

CLINICAL OPPORTUNITIES  Session Chairperson: Gordon Mills, MD, PhD  MD Anderson Cancer Center, Houston, Texas

11:00am-11:20am  “Immunotherapy: The Next Revolution of Cancer Treatment”  Leisha Emens, MD, PhD  Johns Hopkins University, Baltimore, Maryland, USA

11:20am-11:40am  “A Novel Therapy Targeting Wnt Receptor in Metastatic Solid Tumors”  Taran Gujral, PhD  Harvard Medical School, Cambridge, Massachusetts, USA  *Innopsys Sponsored Speaker*

11:40am-12:00pm  “Reverse Phase Protein Arrays as a Tool to Identify New Biomarkers and Potential Therapeutic Targets for Invasive Lobular Breast Cancer”  Leanne de Koning, PhD  Institut Curie, Paris, France

12:00pm-12:20pm  “Quantitative Multiregion Proteomics Reveals Intratumoral Heterogeneity and Identifies Distinct Sub-Proteomes in Colon Cancer”  Karl-Friedrich Becker, PhD  Technische Universität München, München, Germany

12:20pm-12:30pm  Q&A

LUNCH/POSTER SESSION/HANDS-ON WORKSHOPS  12:30pm-2:30pm

SELECTED ABSTRACTS-DRUG DISCOVERY  Session Chairperson: Satoshi Nishizuka, MD, PhD  Iwate Medical University, Morioka, Iwate, Japan

2:30pm-2:40pm  “Global Pathway Profiling of a Novel TNIK Inhibitor using RPPA”  Tesshi Yamada, MD, PhD  National Cancer Center Research Institute, Tokyo, Japan

2:40pm-2:50pm  “Targeting LCK to Revert Drug Resistance in Pediatric T Acute Lymphoblastic Leukemia”  Valentina Serafin, PhD  University of Padova, Padova, Italy
2:50pm-3:00pm  
“Response to Combinatorial Perturbations in Cancer Cells: RPPA Data and Network Inference”
Anil Korkut, PhD
Memorial Sloan Kettering Cancer Center, New York, New York, USA

3:00pm-3:10pm  
Q&A

3:10pm-3:30pm  
“Caught in a Bind: Finding the Right Antibodies”
Gordon Whitley, PhD
SAIC, Frederick Maryland, USA

3:30pm-3:50pm  
“Human Protein Atlas Enabled Neuroproteomic Profiling of Body Fluids”
Peter Nilsson, PhD
KTH – Royal Institute of Technology, Stockholm, Sweden

3:50pm-4:00pm  
Q&A

4:00pm-4:30pm  
Coffee Break

NEW RPPA APPLICATIONS
Session Chairperson: Neil Carragher, PhD
Edinburgh Cancer Research Centre, Edinburgh, UK
4:30pm-6:00pm

4:30pm-4:50pm  
“Bolstering the Glycoanalytical Tool Box, Mining Deeper in Search of Disease Specific Alterations in Glycosylation”
Jonathan Bones, PhD
National Institute for Bioprocessing Research and Training, Dublin, Ireland

4:50pm-5:10pm  
“Regenerative Medicine and Tissue Engineering, and the need for Proteomics”
Jennifer G. Barrett, PhD, DVM, Diplomate ACVS, Diplomate ACVSMR
Virginia Tech Marion duPont Scott Equine Medical Center, Leesburg, Virginia, USA

5:10pm-5:30pm  
“Phosphoprotein Alterations in Emerging Infectious Diseases”
Kylene Kehn-Hall, PhD
George Mason University, Manassas, Virginia, USA

5:30pm-5:40pm  
“Reverse Phase Protein Arrays Facilitate Investigation into Host-Pathogen Interactions”  (Selected Abstract)
Alexis Kaushansky, PhD
Center for Infectious Disease Research, Seattle, Washington, USA

5:40pm-5:50pm  
“Biomarkers of Oocyte Quality in Cumulus Cells using Reverse Phase Protein Array (RPPA)”  (Selected Abstract)
Vincent Puard, PhD
Avacta Life Sciences, Wetherby, United Kingdom

5:50pm-6:00pm  
Q&A
**WELCOME AND NETWORKING DINNER**
Hylton Performing Arts Center  
6:30pm-9:00pm

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<tr>
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<tbody>
<tr>
<td>9:00pm</td>
<td>Buses depart in front of Hylton Performing Arts Center for hotel drop-off at Comfort Suites Manassas and Hilton Washington Dulles</td>
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| Date: October 13, 2015 |

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### NEXT GENERATION RPPA

**Session Chairperson:** Leanne de Koning, PhD  
Institut Curie, Paris, France

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<th>Speaker</th>
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<tbody>
<tr>
<td>9:00am</td>
<td>“Origin and Future of RPPA Technology”</td>
<td>Lance Liotta, MD, PhD</td>
<td>George Mason University, Manassas, Virginia, USA</td>
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<tr>
<td>9:20am</td>
<td>“The FoRe Microarray: Developments, Applications, and Future Directions”</td>
<td>Victoria de Lange, PhD</td>
<td>ETH Zurich, Zurich, Switzerland</td>
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<tr>
<td>9:40am</td>
<td>“Understanding the Antibody Response to Infectious Diseases with Whole Proteome Microarrays-Creating Microarray Technology that is Accessible Worldwide”</td>
<td>Philip Felgner, PhD</td>
<td>University of California, Irvine, California, USA</td>
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<tr>
<td>10:00am</td>
<td>Q&amp;A</td>
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### RPPA WORKSHOP POSTER SESSION & COFFEE BREAK
10:10am-11:00am

### EXPANDING RPPA APPLICATIONS IN BIOLOGY AND MEDICINE

**Session Chairperson:** Tesshi Yamada, MD, PhD  
National Cancer Center Research Institute, Tokyo, Japan

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<tr>
<td>11:00am</td>
<td>“Childhood Cancer: Future Challenges and New Directions”</td>
<td>Robert Martone</td>
<td>St. Jude Children’s Research Hospital, Memphis, Tennessee, USA</td>
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<td>Speaker</td>
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<tr>
<td>11:20am-11:40am</td>
<td>“The Human Placenta Structure and Function in Health and Disease (including Autism)”</td>
<td>Harvey Kliman, MD, PhD</td>
<td>Yale University School of Medicine, New Haven, Connecticut, USA</td>
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<td>11:40am-12:00pm</td>
<td>“Cancer Stem Cells: Therapeutic Implications”</td>
<td>Giorgio Stassi, MD</td>
<td>University of Palermo, Palermo, Italy</td>
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<tr>
<td>12:00pm-12:20pm</td>
<td>“Collaborative Microarray Printing Solutions within RPPA”</td>
<td>Russell Brown</td>
<td>Arrayjet, Edinburgh, Scotland</td>
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<tr>
<td>11:40am-12:00pm</td>
<td>“Affimer®, Novel Affinity Reagent and Targeting Tools for Life Sciences”</td>
<td>Vincent Puard, PhD</td>
<td>Avacta Life Sciences, Wetherby, United Kingdom</td>
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<td>2:30pm-2:40pm</td>
<td>“A Pan-Cancer Proteomic Landscape of The Cancer Genome Atlas (TCGA) Projects using RPPA Data”</td>
<td>Rehan Akbani, PhD</td>
<td>University of Texas MD Anderson Cancer Center, Houston, Texas, USA</td>
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<td>2:40pm-2:50pm</td>
<td>“Protein Microarray-Derived Serum and Urine Biomarkers for Kidney Allograft Rejection”</td>
<td>Meera Srivastava, PhD</td>
<td>Uniformed Services University of Health Sciences, Bethesda, Maryland, USA</td>
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<td>2:50pm-3:00pm</td>
<td>Q&amp;A</td>
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**SELECTED ABSTRACTS-ACTIONABLE TARGETS AND BIOMARKER DISCOVERY**
Session Chairperson: Neil Carragher, PhD
Edinburgh Cancer Research Centre, Edinburgh, UK
2:30pm-3:00pm

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**FUNDING OPPORTUNITIES & COMMERCIALIZATION OF BIOMEDICAL TECHNOLOGIES**
Session Chairperson: Lance Liotta, MD, PhD
George Mason University, Manassas, Virginia
3:00-4:10pm

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<td>3:00pm-3:20pm</td>
<td>“Future Directions of Placental Research at the NIH: The Human Placenta Project”</td>
<td>David Weinberg, PhD</td>
<td>Eunice Kennedy Shriver National Institute on Child Health and Human Development (NICHHD), Bethesda, Maryland, USA</td>
</tr>
<tr>
<td>3:20pm-3:40pm</td>
<td>“Evaluating the Potential of the Theralink® Assay to Guide Therapies and Prospective Adaptive Clinical Trial”</td>
<td>Corinne Ramos, PhD</td>
<td>Theranostics Health Inc., Rockville, Maryland, USA</td>
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*Theranostics Health Sponsored Speaker*
3:40pm-4:00pm  “Going from a Good Concept to a Great Product”
Timothy Fischer
HemoSonics, Charlottesville, Virginia, USA

4:00pm-4:10pm  Q&A

4:10pm-4:30pm  Coffee Break

**DRUG DISCOVERY**
Session Chairperson: Emanuel Petricoin III, PhD
George Mason University, Manassas, Virginia

4:30pm-5:40pm

4:30pm-4:50pm  “A Role for FOXO-1 in BCR-ABL1 Kinase-Independent Tyrosine Kinase Inhibitor Resistance in Chronic Myeloid Leukemia”
Marie-Claire Wagle, PhD
Genentech, South San Francisco, California, USA
*Genentech Sponsored Speaker

4:50pm-5:10pm  “Environmental and Context Dependent Regulation of Chemosensitivity, A Systems Biology Perspective”
Michael Lee, PhD
UMass Medical School, Worcester, Massachusetts, USA

5:10pm-5:30pm  “Future Revolutions in Cancer Therapy”
Gordon Mills, MD, PhD
MD Anderson Cancer Center, Houston, Texas, USA

5:30pm-5:40pm  Q&A

5:40pm-5:50pm  “RPPA Society”
Satoshi Nishizuka, MD, PhD
Iwate Medical University, Morioka, Iwate, Japan

5:50pm-6:00pm  “Closing Remarks”
Lance Liotta, MD, PhD

6:30pm  Buses depart in front of Occoquan Building for hotel drop-off at Comfort Suites Manassas and Hilton Washington Dulles

**ABSTRACTS SELECTED FOR POSTER PRESENTATION**

“Evaluation of Cell Signaling Pathway Modulation After Rift Valley Fever Virus Infection”
Todd Bell, George Mason University, NCBID, USA

“Host Intracellular Communication Mechanisms During Infection with Burkholderia spp. and Yersinia pestis”
Ramin Hakami, George Mason University, NCBID, USA

“Exosomes from Virally Infected Latent Cells Give Rise to Pro- or Anti-Apoptotic Phenotypes in Recipient Cells”
Fatah Kashanchi, George Mason University, NCBID, USA
“Circulating Chronic Lymphocytic Leukemia Cells Expressing Markers of Clinical Aggressiveness Actively Cross-talk with Blood-borne Ligands: Data from a Phosphoproteomic Approach”
Dania Benedetti, Centro di Riferimento Oncologico, Italy

“Comprehensive Search for Acquired Drug Sensitivities in Hormone-Therapy Resistant Cell Models using Reverse Phase Protein Arrays”
Susanne Hultsch, FIMM - Institute for Molecular Medicine Finland, Finland

“The Proteomic Landscape of Breast Cancer Metabolism”
Stephan Bernhardt, German Cancer Research Center (DKFZ), Germany

“An mTORC1-Mdm2-Drosha Axis for miRNA Biogenesis in Response to Glucose- and Amino Acid-Deprivation”
Peiying Ye, Children's National Medical Center, USA

“Multifactorial Analysis of Conditional Reprogramming of Human Keratinocytes”
Geeta Upadhyay, Lombardi Comprehensive Cancer Center, Georgetown University, USA

“Using a RPA approach to investigate the Effect of Cigarette Smoke Exposure in a 90-Day Inhalation Study followed by 42-Day Recovery Period on Sprague-Dawley Rat Lung Tissue as compared to a candidate modified risk tobacco product, THS 2.2.”
Céline Merg, Philip Morris Internationa, Switzerland

“Reverse Phase Protein Arrays for High-throughput Toxicity Screening”
Marlene Pedersen, Institute of Molecular Medicine - University of Southern Denmark, Denmark

“Using Protein Microarray Chips to Develop a Highly Specific HER2 Antibody for HER2 Amplification Testing”
Wei Fu, OriGene Technologies Inc., USA

“Characterization of Mono Specific PD-1 Antibodies For Use In Screening PD-1 Levels In Tumors and Neutralizing Activity”
Rachel Gonzalez, OriGene Technologies Inc., USA

“Searching for Rigid Antibody Validation Strategies for RPPA and its Application in Cellular Assays and Translational Medicine”
Nan Wang, ArrayGen, United Kingdom

“A Biobank on a Chip - Profiling Proteins in Serum Samples at Large Scale”
Cecilia Hellström, Royal Institute of Technology (KTH), SciLifeLab, Sweden

“Clinical Utility of Reverse Phase Protein Array for Molecular Classification of Breast Cancer”
Ola H. Negm, University of Nottingham, United Kingdom
“Seeing is Believing: Evaluation of reformulated Dako Catalyzed Signal Amplification (CSA) Kit”
Mariaelena Pierobon and Virginia Espina, George Mason University, USA

“Plasmonic Slides that Enhance Fluorescence from Protein and from Glycan Microarrays”
Jesse Baumgold, Plasmonix Inc, USA

“Development of a Novel pIMAGO Capture-Based phospho-RPPA Platform”
Anton Iliuk, Tymora Analytical Operations, USA

“Affimer®, New Affinity Reagent, can be used for Reverse Phase Protein Array (RPPA)”
Vincent Puard, Avacta Life Sciences, United Kingdom

“Innopsys InnoScan Infrared Scanners Provide Superior Dynamic Range and Signal-to-Noise Ratios in Reverse Phase Protein Array Analyses”
Joshua Starr, Uniformed Services University of the Health Sciences, USA

“To Amplify or not to Amplify: A Comparison Between Fluorescent Detection Methods for Protein Microarray Applications”
Eric Jallérat, Sartorius-Stedim Biotech, Germany