CAMBRIDGE HEALTHTECH INSTITUTE’S 13th ANNUAL
IMMUNO-ONCOLOGY
WORLD CONGRESS 2017

MAY 2 - 4, 2017 | PHILADELPHIA, PA | PHILADELPHIA MARRIOTT DOWNTOWN

2017 CONFERENCE PROGRAMS

MAY 2-3
- Immuno-Oncology Biomarkers
- Personalized Immunotherapy

MAY 3-4
- Immune Profiling in Cancer
- Combination Immunotherapy

DISTINGUISHED SPEAKERS

Robert Iannone  
SVP & Head, Immuno-Oncology
AstraZeneca

Roy D. Baynes  
SVP & Head, Global Clinical Development
Merck

George Poste  
Chief Scientist, Complex Adaptive Systems
Arizona State Univ.

Nicholas C. Dracopoli  
VP, Oncology Diagnostics, Janssen R&D

Zhen Su  
VP & Head, Oncology
EMD Serono

Ignacio I. Wistuba  
Chair, Translational Molecular Pathology
The Univ. of Texas MD Anderson Cancer Center

COURSES & WORKSHOPS

- Liquid Biopsy for Immuno-Oncology and Precision Medicine
- PD-L1 Assays for Biomarkers and Companion Diagnostics
- Complementary Diagnostics
- Immune Monitoring in Cancer

These programs are part of the 13th Annual
BIOMARKERS & IMMUNO-ONCOLOGY
WORLD CONGRESS 2017

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• Podcasts
MONDAY EVENING, MAY 1 | 5:00 – 8:00 PM

Dinner Workshop

**SC2: LIQUID BIOPSY FOR IMMUNO-ONCOLOGY AND PRECISION MEDICINE**

Characterizing the Cancer Genome from the Circulation
Rebecca Leary, Ph.D., Senior Investigator, Next Generation Diagnostics, Oncology Research, Novartis Institutes for BioMedical Research

The Prognostic Potential of Tumor-Derived Exosomes Isolated from Plasma of Patients with Cancer
Theresa L. Whiteside, Ph.D., Professor, Pathology, Immunology and Otolaryngology, University of Pittsburgh Cancer Institute

Tumor-Specific and PD-L1 Subtype CTC Capture/Detection in Relevance of Clinical Utility
Shulin Li, Ph.D., WT & Louise Jarrett Moran Distinguished Chair & Professor, Pediatrics – Research, The University of Texas MD Anderson Cancer Center

TUESDAY EVENING, MAY 2 | 6:00 – 9:00 PM

Dinner ThinkTank

**SC5: PD-L1 ASSAYS FOR BIOMARKERS AND COMPANION DIAGNOSTICS**

Developing an Immunohistochemistry Test for “Programmed Cell Death 1 Ligand” (PD-L1) as a Companion Diagnostic for Pembrolizumab
Kenneth Emancipator, M.D., Executive Medical Director and Head of Companion Diagnostics, Merck & Co.

Regulatory Update on PD-L1 Assays
Janaki Veeraraghavan, Ph.D., Biologist, Office of In Vitro Diagnostics & Radiological Health, CDRH, FDA

PD-L1 as a Biomarker: Opportunities and Challenges
Kurt A. Schalper, M.D., Ph.D., Assistant Professor, Pathology and Medicine (Medical Oncology), Yale School of Medicine

Panel Discussion
Moderator: Kenneth Emancipator, M.D., Executive Medical Director and Head of Companion Diagnostics, Merck & Co.

Panelists:
Jean-Marie Bruey, Ph.D., Companion Diagnostics Group Leader, Genentech
Margonna Freeman, D.O., Medical Oncologist, Immunotherapeutics, The Angeles Clinic and Research Institute
Arnold B. Gelb, M.D., MS, FASCP, FCAP, Senior Director, Global Clinical Biomarkers and Companion Diagnostics, EMD Serono
Kurt A. Schalper, M.D., Ph.D., Assistant Professor, Pathology and Medicine (Medical Oncology), Yale School of Medicine
Janaki Veeraraghavan, Ph.D., Biologist, Office of In Vitro Diagnostics & Radiological Health, CDRH, FDA

WEDNESDAY EVENING, MAY 3 | 6:15 – 9:15 PM

Dinner Executive ThinkTank

**SC6: COMPLEMENTARY DIAGNOSTICS**

Opportunities and Challenges in Developing and Commercializing Complementary Diagnostics
Peter Hoehn, JD, Global Business Leader, Janssen Diagnostics

Diagnostics: What’s in a Label?
Marielena Mata, Ph.D., Program Director, Precision Medicine & Companion Diagnostics, GlaxoSmithKline

Supporting Therapeutic Outcomes: Complementary Diagnostics in Immuno-Oncology
George A. Green IV, Ph.D., Group Director, Pharmacodiagnostics Center of Excellence, Bristol-Myers Squibb

Companion vs. Complementary from Clinical and Regulatory Perspectives
Abdel B. Halim, Pharm.D., Ph.D., DABCC-CC, DABCC-MD, DABCC-Tox, Vice President, Translational Medicine, Biomarkers & Diagnostics, Celldex Therapeutics

Complementary vs. Companion Diagnostics: Two Sides of the Same Coin?
Victoria H. Brophy, Ph.D., Director, Genomics & Oncology Research, Roche Molecular Systems, Inc.

Dinner Short Course

**SC7: IMMUNE MONITORING IN CANCER**

Instructor:
Sacha Gnjatic, Ph.D., Associate Professor, Tisch Cancer Institute, Hematology/ Oncology, Immunology, Icahn School of Medicine at Mount Sinai

Immunomonitoring aims to define qualitatively and quantitatively immune responses in patients, to establish correlates with clinical course of disease, and to help identify prognostic, predictive, or pharmacodynamic biomarkers as well as potential novel therapeutic targets. The course will first define the scope of assays covered by immune monitoring, which encompass various disciplines from pathology to immunology via proteomics and genomics. A focus on the types of assays depending on material available will be discussed, from either the cancer tissue site or from peripheral blood. Defining specificity of immune responses against cancer will also be addressed, as it is critical to properly address mechanisms of antitumor responses, either spontaneously occurring or as a result of treatment. Finally, examples of these approaches will be shown when applied to immunotherapeutic strategies, from cancer vaccines to checkpoint blockade.

- What is immune monitoring in cancer?
- What assays can be used to measure tumor immunity?
- Tissue vs. periphery, advantages/disadvantages
- Antigen specificity, the key to relevance for adaptive immunity
- Defining immunocompetence in cancer
- Measuring immune changes during cancer immunotherapy
Immuno-Oncology Biomarkers

MONDAY, MAY 1

12:00 - 5:00 pm  Short Course Registration and Conference Pre-Registration
5:00 - 8:00 Dinner Workshop*

TUESDAY, MAY 2

7:00 am Conference Registration and Morning Coffee

COMPANION DIAGNOSTIC DEVELOPMENT IN IMMUNO-ONCOLOGY

8:00 Chairperson's Opening Remarks
Nicholas C. Dracopoli, Ph.D., Vice President, Oncology Diagnostics, Janssen Research & Development

8:10 Immuno-Oncology Companion Diagnostics Development: A Complex Systems Approach
Lourdes Barrera, Ph.D., Global Capability Director, Diagnostics, AstraZeneca

Development of companion diagnostics for emerging immunotherapies is more complicated because they are not dependent on driver mutations in the drug target. Consequently, we need to develop new biomarker strategies for the development of no prior immune response. During this review, we will give some examples of how complex systems approach is supporting the development of new biomarkers and potentially companion and complementary diagnostic tests.

8:35 The Evolution of Oncology Companion Diagnostics from Signal Transduction to Immuno-Oncology
Nicholas C. Dracopoli, Ph.D., Vice President, Oncology Diagnostics, Janssen Research & Development

Companion diagnostic (CDx) tests for signal transduction inhibitors measure the activation status of the drug target. CDx tests for immune modulating drugs will be much more complicated and need to measure the immune status of tumors and differentiate those with a suppressed immune response. Consequently, we need to develop new biomarker strategies for the development of no prior immune response. These new CDx tests will drive the choice of therapeutic intervention with checkpoint inhibitors or alternative approaches to prime a new immune response.

9:00 An Industry Perspective on Clinical Biomarkers and Companion Diagnostics for Checkpoint Inhibitor Therapies
Arnold B. Gelb, M.D., MS, FASCRF CAR, Senior Director, Global Clinical Biomarkers and Companion Diagnostics, EMD Serono

Ongoing trends in clinical oncology support the value proposition of using a precision medicine approach for patient selection and enrichment strategies when developing immuno-oncology therapeutics. This presentation will review aspects pertinent to checkpoint inhibitor therapies of exploratory analyses of clinical biomarkers to identify predictive/prognostic clinical biomarkers that may lead to co-development of a companion diagnostic or a complementary diagnostic. Examples will be drawn from the current status of approved PD-L1 assays, citing the limitations thereof, and other clinical biomarkers and candidate companion or complementary diagnostics, including characterizations of the tumor microenvironment, immune cell phenotyping, T cell repertoires, IFN-gamma gene signature, neoantigen burden/mutational load, microsatellite instability status, and potentially other “hot topics” such as liquid biopsies.

9:25 Coffee Break in the Exhibit Hall with Poster Viewing

COMPANION DIAGNOSTIC DEVELOPMENT IN IMMUNO-ONCOLOGY (CONT.)

10:10 Chairperson's Remarks
Nicholas C. Dracopoli, Ph.D., Vice President, Oncology Diagnostics, Janssen Research & Development

10:15 RNA, DNA or Protein? Or All Three? Development of Multiple Diagnostics Predicting Response to Pembrolizumab
Matt Marton, Ph.D., Director, Genomics and Companion Diagnostics, Translational Biomarkers, Merck

An effective diagnostic strategy for anti-PD1 therapy may require multiple predictive biomarkers that assess the complexity of both tumor biology and the immune system. In addition to PD-L1 protein expression, multiple biomarkers, including gene expression and mutation burden, have been proposed as predictors of response to anti-PD1 therapy. We will discuss analytical performance characteristics of potential diagnostic devices under development, including an RNA-based gene expression device being studied in multiple indications.

10:40 Precision Medicine and IO Biomarkers
Jean-Marie Bruey, Ph.D., Companion Diagnostics Group Leader, Genentech

The past decade has witnessed a revolution in our understanding of the immune system and our ability to develop safer and more effective immunotherapies. Classification of diseases according to their biological underpinnings will guide more precise targeting of new therapies, and molecular/biomarker characterization of therapeutic responses will provide direction for therapy improvement. The PD-1/PD-L1 checkpoint inhibitors are important contributions in finding more effective treatments against cancer, and it is likewise important that we have companion diagnostics available that will guide treatment.

11:05 Enabling Immuno-Oncology Based Development through Image-Based Cell Sorting to Recover Pure Cell Populations from Complex Patient Tissue Specimens
Farideh Bischoff, Ph.D., Chief Clinical Development Officer, Menarini Silicon Biosystems

Ana Paula Da Silva, Ph.D., Senior Scientist, Menarini Silicon Biosystems

Tumor infiltrating lymphocytes (TILs) are biomarkers that play a critical role in cancer, including differential diagnosis, determination of prognosis, treatment response, and disease progression. However, analysis of gene expression in fresh tissue may not accurately depict the gene profile as it can change aggressively during lymphocyte isolation and RNA extraction. In this presentation, we demonstrate the use of the DEPArray™ platform to isolate pure populations of lymphocytes from fixed mouse tissue for downstream RNA analysis.

11:35 Enabling Companion Diagnostic Development for Challenging Biomarkers with RNA: A Quantitative In Situ RNA Biomarker Platform
Robert Monroe, M.D., Ph.D., CMO, Advanced Cell Diagnostics, Inc.

Recent advances have made RNA ISH an attractive platform for companion diagnostics. RNA ISH now has the ability to detect RNA expression in automated, chromogenic assays at the single cell level in histological sections, allowing for biomarker assessment by diagnosticians at the light microscope. This presentation will review how RNA ISH addresses various issues with IHC and other CDx platforms and how it is being used in CDx development for a variety of challenging biomarkers.

12:05 pm Session Break
patients whose breast cancer samples express HER2/neu may be treated. Cancer samples can be used to predict response to treatment. For example, Robert Anders, M.D., Ph.D., Associate Professor, Pathology, Johns Hopkins University

myeloid immunosuppressive mechanisms and clinical biomarker approaches critical. As a case study, a novel first-in-class immunotherapy drug targeting new data from the translational science disciplines, including biomarkers, is some patients develop resistance. Successful integration of the large body of mechanisms. Despite success with checkpoint inhibitor monotherapies, the recent successes in immuno-oncology have been attained with immune-targeted therapies, e.g., checkpoint inhibitors, have emerged as the next generation approaches to treating cancer.

BIOMARKERS TO PREDICT RESPONSE TO IMMUNOTHERAPY

1:30 The New Precision Medicine: The Role of Dynamic Tumor and Immune Sampling in Immunotherapy
Morganna Freeman, D.O., Medical Oncologist, Immunotherapeutics, The Angeles Clinic and Research Institute

Immuno-oncology has revolutionized the oncology treatment landscape, and as therapies evolve, there is a recognized need for biomarkers to inform the likelihood and duration of response. Radiologic assessments, i.e. RECIST, may be supplanted by biologically relevant markers in order to develop timely, cost-effective, and potentially personalized therapy. This presentation will review dynamic tumor and immune sampling as early markers of clinical response and their emerging role in clinical decision making.

2:25 An RNA-Based Immunophenotyping Assay; Robust Tumor Microenvironment Characterization from a Single RNA Isolation
Jarret Glasscock, Ph.D., CEO, Cofactor Genomics, Inc.

Immune recognition, activation, and infiltration are all required for effective clearance of a tumor by the immune system. Impairment of tumor avoidance mechanisms each requires a different therapeutic strategy. We have developed Paragon to provide a comprehensive profile of a tumor’s microenvironment, including measurement of the expression levels of immune checkpoint genes, quantification of the total mutational burden of the tumor, and levels of infiltration of multiple immune cell subtypes; from a single RNA sample. 2:55 Refreshment Break in the Exhibit Hall with Poster Viewing

3:00 Developing Biomarker Strategies for Immuno-Oncology
Ann Kapoun, Ph.D., Vice President, Translational Medicine, OncoMed Pharmaceuticals

This presentation will cover: precision medicine in IO, challenges to developing biomarkers preclinically in the IO space, and examples of clinical applications.

3:45 Biomarker Considerations in Early Phase Immunotherapy Clinical Trials
Lucy Xu, Ph.D., Associate Director, Biomarker Development Support & Global Health, hcc Data Creation Center, Eisai

The recent successes in immuno-oncology have been attained with immune checkpoint blockade, targeting T-lymphoid cell-based immunosuppressive mechanisms. Despite success with checkpoint inhibitor monotherapies, some patients develop resistance. Successful integration of the large body of new data from the translational science disciplines, including biomarkers, is critical. As a case study, a novel first-in-class immunotherapy drug targeting myeloid immunosuppressive mechanisms and clinical biomarker approaches used will be discussed.

4:10 Rational Biomarker Development for Checkpoint Inhibition in Colon Cancer
Robert Anders, M.D., Ph.D., Associate Professor, Pathology, Johns Hopkins University

Cancer samples can be used to predict response to treatment. For example, patients whose breast cancer samples express HER2/neu may be treated with and respond to HER2 blockade. Recently PD-L1 expression has been touted as a predictive biomarker for immune therapy. While PD-L1 does have some predictive power, it is not a perfect biomarker. A better approach for developing predictive biomarkers is to integrate genomic, protein and immunologic markers. When this strategy is applied to patients with colorectal cancer, it is possible to select over 90% of patients that are likely to show a biologic response to anti-PD-1/L1 therapy. This lecture will cover ideas of integrating multiple platforms to predict who will respond to therapy.

4:35 Identifying Immune Biomarkers for Treatment Prognosis and Response in Genitourinary Malignancies
Susan F. Slovin, M.D., Ph.D., Attending Physician, Member, Genitourinary Oncology Service, Sidney Kimmel Center for Prostate and Urology Cancers, Memorial Sloan Kettering Cancer Center; Professor, Medicine, Weill Cornell Medical College

The identification of novel immune-based biomarkers that can portend treatment response or change in a cancer’s biology remains a major imperative for clinical trials with immunologic agents. Controversy exists from clinical trial to clinical trial for a specific malignancy with regard to the up- or down-regulation of checkpoint markers such as PD-1 and PD-L1, and their association with clinical benefit, thereby making it difficult to assess their role as biomarkers. The potentials and pitfalls of using immune biomarkers will be discussed with relevance to current successful Phase II and Phase III trials for genitourinary cancers.

5:00 Welcome Reception in the Exhibit Hall with Poster Viewing
5:30 ThinkTank Registration
8:55 Immune Monitoring of Cancer Vaccines and Immunotherapy: What Have We Learned and Where to Go Next?
Sacha Gnjatic, Ph.D., Associate Professor, Tisch Cancer Institute, Hematology/Oncology, Immunology, Icahn School of Medicine at Mount Sinai
With clinical success of cancer immunotherapy, it is essential to understand the mechanisms of novel drugs by measuring their effect on immune cells, in the periphery and at the tumor site. Novel approaches and technologies are needed to address the complex task of identifying biomarkers of clinical activity and to improve the design of future therapies.

9:20 Biomarker Strategies for Cancer Vaccine Trials
Stephanie Traub, Ph.D., Biomarker Specialist, Centre for Drug Development, Cancer Research UK
Recent developments in the PD-1 field have shown promising progress in combination of checkpoint inhibitors and cancer vaccines. However, one critical point that hasn’t been answered yet, which is probably the initial pitfall of cancer vaccines, is the question of how an effective immune response should look and how this immune response can be monitored.

9:45 Coffee Break in the Exhibit Hall with Poster Viewing

GENOMIC BIOMARKERS FOR IMMUNOTHERAPY PATIENT SELECTION

10:45 The Evolving Role of Immune Checkpoint Therapy in Colorectal Cancer with and without Deficient Mismatch Repair
Michael J. Overman, M.D., Associate Professor, Gastrointestinal Medical Oncology, The University of Texas MD Anderson Cancer Center
Immune checkpoint therapy targeting PD-1/PD-L1 has shown robust activity in colorectal cancer with mismatch deficiency or microsatellite instability (MSI-high) but not microsatellite stable (MSS) colorectal cancer. It is now clear that MSI-high cancers represent a unique molecular tumor subset that should be approached with immune-based therapy. This talk will discuss the current combinatorial efforts within MSI-high colorectal cancer and also the emerging combinations that are being explored in MSS colorectal cancer.

11:10 Somatic Alterations in HLA Genes as an Immune Escape Mechanism in Cancer
Sachet A. Shukla, Ph.D., Senior Scientist, Dana-Farber Cancer Institute
Mutations in HLA genes, which are located in the most polymorphic region of the genome, are difficult to characterize and may profoundly affect the efficacy of many immunomodulatory therapies. Computational analyses strongly suggest acquisition of HLA mutations to be an adaptive response to immunological pressure in many different tumor types. Lack of somatic alterations in HLA genes may therefore be a useful patient selection criterion in immunotherapeutic clinical trials.

11:35 Combinatorial Therapeutic Strategies for Ovarian Cancer
Yvonne Lin, Ph.D., Associate Medical Director, Product Development, Oncology, Genentech-Roche
Ovarian cancer remains the leading cause of death among all gynecologic cancers. Recent advances in understanding molecular profiles of ovarian cancer have led to incorporating targeted therapies into the treatment plan. Characterization of an immunoreactive subtype of ovarian cancer supports pairing immune checkpoint inhibitors with ovarian cancer therapies to deliver highly effective therapy for patients.

12:00 pm Immunohistological and Genomic Correlations and Differences Between Various Anti-PD-L1 Clones
Maher Albitar, M.D., Senior Vice President, CMO and Director, Research and Development, NeoGenomics Laboratories
Expression of PD-L1 protein as detected by immunohistochemistry is commonly used for selecting patients for immunotherapy. Multiple assays using different antibody clones are currently used. Current research is focused on exploring if genomic abnormalities can be used for better selection of patients for immunotherapy. Furthermore, as combination therapy is being planned, there is a need to correlate immunotherapy biomarkers with targeted therapy biomarkers. This presentation will discuss the correlation between genomic abnormalities and the various PD-L1 immunohistochemistry assays.

12:30 Close of Conference
Ongoing trends in clinical oncology support the value proposition of using a complex systems approach for discovering novel personalized cancer immunotherapy targets. These new approaches are more complicated because they are not dependent on driver mutations in the drug target. Consequently, we need to develop new biomarker strategies for the development of immunotherapies. During this review, we will give some examples of how complex systems approach is supporting the development of new biomarkers and potentially companion and complementary diagnostic tests.

**8:35 The Evolution of Oncology Companion Diagnostics from Signal Transduction to Immuno-Oncology**

Nicholas C. Dracopoli, Ph.D., Vice President, Oncology Diagnostics, Janssen Research & Development

Companion diagnostic (CDx) tests for signal transduction inhibitors measure the activation status of the drug target. CDx tests for immune-modulating drugs will be much more complicated and need to measure the immune status of tumors and differentiate those with a suppressed immune response from those with no prior immune response. These new CDx tests will drive the choice of therapeutic intervention with checkpoint inhibitors or alternative approaches to prime a new immune response.

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Arnold B. Gelb, M.D., MS, FACR, FCAP, Senior Director, Global Clinical Biomarkers and Companion Diagnostics, EMD Serono

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**9:25 Coffee Break in the Exhibit Hall with Poster Viewing**

**NEOANTIGEN-TARGETED THERAPIES**

**10:10 Chairperson’s Opening Remarks**

Philip M. Arlen, M.D., President & CEO, Precision Biologics

**10:15 Monoclonal Antibodies Targeting Novel Immunogenic Neo-Epitopes for the Treatment of Solid Tumors**

Philip M. Arlen, M.D., President & CEO, Precision Biologics

Immunogenic neoantigens were derived from a membrane preparation of pooled allogeneic colorectal cancer and screened for immunogenicity. The immunogenic fraction was used as a vaccine for chemotherapy refractory disease and a positive correlation was observed in patients who developed antibody responses to therapy. Using this vaccine as a platform, monoclonal antibodies were developed and characterized that were sensitive and specific to cancer, not normal cells, and demonstrated antitumor activity.

**10:40 Turning Tumor Mutations into Personalized Cancer Therapies**

Roman Yelensky, Ph.D., Executive Vice President, Sequencing and Bioinformatics, Gritstone Oncology

Tumor-specific neo-antigens (TSNAs) can be targeted by the immune system. Gritstone Oncology is exploiting this tumor vulnerability in a therapeutic immunization strategy. The approach includes NGS to identify candidate TSNAs, proteomics and machine learning to predict which TSNAs can activate T cells, the manufacture of a personalized TSTA-based vaccine, and delivery in a combination regimen.

**11:05 In silico Discovery of Gene Fusion Neoantigens for Personalized Cancer Immunotherapy**

Christopher Maher, Ph.D., Assistant Professor, Department of Medicine, Division of Oncology, Washington University

Studies have used NGS to discover tumor-specific neoantigens. However, these analyses have relied on somatic missense mutation-based neoantigen discovery workflows, thereby missing gene fusions that may translate into novel immunogenic peptides. To address this critical gap, we developed INTEGRATE-Neo for gene fusion neoantigen discovery using NGS and demonstrate its utility for discovering novel personalized cancer immunotherapy targets.

**11:30 High-Throughput Generation of Neoantigen-Specific T Cell Receptors for Adoptive T Cell Therapy**

Markus Dangl, Ph.D., Senior Vice President, Research & Pre-Clinical Development, Medigene AG

TILs specific for neoantigens and tumors with high mutational loads underlie effective immunotherapies. Questions remain whether neoantigens are good targets only for highly mutated tumors and patients with pre-existing neoantigen-specific T cells. Medigene uses its immunotherapy platform technologies to investigate neoantigens as future targets for vaccine and adoptive T cell therapies.

**11:55 Enjoy Lunch on Your Own**

**PERSONALIZED CANCER VACCINES**

**1:00 pm Chairperson’s Remarks**

Joshua Brody, M.D., Director, Lymphoma Immunotherapy Program, Icahn School of Medicine at Mount Sinai

**1:35 In situ Vaccination: Potential Mechanism(s) of Action and Biomarker Development**

Robert Pierce, M.D., Scientific Director, Immunopathology Core, Fred Hutchinson Cancer Research Center

In situ vaccines (ISVs), intratumoral therapies that aim to enhance tumor immunogenicity, offer the potential to generate tumor antigen-specific TIL and augment anti-PD1 blockade. Multiple ISVs are in clinical development, including TLR agonists, STING agonists, oncolytic viruses and proinflammatory cytokines. ISVs offer a potential safety advantage due to relatively low systemic exposure and may be useful in combination with systemic immunotherapies. Mechanism of action-based biomarker development will be discussed.
2:00 In situ Vaccination to Potentiate Checkpoint Blockade Therapy
Joshua Brody, M.D., Director, Lymphoma Immunotherapy Program, Icahn School of Medicine at Mount Sinai
We have developed a novel in situ vaccine, in an animal model and in patients with low-grade lymphoma, combining: 1) FIT3L to recruit DC, 2) radiotherapy (XRT) to load DC with tumor-associated antigens (TAA), and 3) toll-like receptor agonist (TLRα) to activate TAA-loaded DC for cross-presentation. Strikingly, we observed partial and complete systemic tumor regressions, improving months after therapy, and even elimination of malignant B cells with sparing of healthy B cells, all suggesting a systemic anti-tumor immune response. Pre-clinical studies show similar results and enhancement with PD1 blockade. These data have motivated a new trial of the combination therapy which should compel future trial designs to consider optimizing cross-presentation to maximize the potential of checkpoint blockade therapy.

2:25 Playing the Numbers Game: Driving High-Titer T Cell Responses to Tumor Neoantigens
Raphael Rousseau, M.D., Ph.D., CMO, Gritstone Oncology

2:55 Refreshment Break in the Exhibit Hall with Poster Viewing

3:45 Immunotherapy for Prostate Cancer: Challenges and Opportunities
Marijo Bilusic, M.D., Ph.D., Associate Research Physician, National Cancer Institute, National Institutes of Health
The efforts are underway to develop better and more targeted therapies for prostate cancer. The first therapeutic cancer vaccine which demonstrated survival advantage in metastatic castration-resistant prostate cancer while maintaining an excellent quality of life was sipuleucel-T, approved in 2010. With several novel agents in clinical development, immunotherapeutics will likely continue to play an important role in the treatment of prostate cancer.

4:10 Development of Commercially Viable Private Neoantigen-Based Vaccines
Agnete Fredriksen, Ph.D., CSO, Vaccibody
Increasing evidence supports the role of neoantigens as promising targets of anti-tumor responses. However, development of commercially viable private neoantigen vaccines faces many challenges. Vaccibody is combining the attractive rapid, robust and cost-effective manufacturing of individual DNA vaccines with a unique mechanism of action of the encoded Vaccibody fusion protein that ensures efficient immune responses through attraction, activation and antigen loading of APC, and will pursue clinical trials in 2017.

4:35 Th1-Selected Epitope-Based Vaccination as the Lymphcin for Cancer Immunotherapy Combinations
William Watt, Ph.D., President & CEO, EpiThany
The proliferation of targets and molecules for immunomodulation of the tumor microenvironment highlights the need for a new vaccine approach to generate reliable anti-tumor immune responses for modulating. Decades of investment in vector and adjuvant technologies have achieved modest progress in the diversity and immunogenicity of self-antigen cancer vaccines. On a new platform, EpiThany is developing a pipeline of Th1-selective MHCII epitope-based vaccines as the lymphcin for emerging immune-oncology combinations.

8:00 Immune-Profiling Platform for Biomarker Discovery in Immune-Oncology
Ignacio I. Wistuba, M.D., Professor & Chair, Translational Molecular Pathology, The University of Texas MD Anderson Cancer Center
The discovery of new molecules and pathways with pivotal functions regulating the immune system facilitated the emergence of new cancer treatments and the investigation of novel biomarkers to predict response. The development of these biomarkers requires the participation of immunology, pathology and genomics. We developed a translational molecular pathology immune-profiling platform to discover and validate biomarkers in tissue and fluids for immune-oncology in clinical samples from patients in clinical trials.

8:25 NGS Solutions Across IO Drug Development: From Biomarker Discovery to IVD
John Simmons, Ph.D., Director, Translational Science and Diagnostics, Personal Genome Diagnostics
Personal Genome Diagnostics is a next-generation sequencing (NGS) company that collaborates with Bio-Pharma to support biomarker discovery and diagnostic development with assays using both tissue (FFPE) and plasma (ctDNA) inputs. Here we will discuss applications of our core technologies, including whole exome sequencing (WES), neoantigen prediction, RNA-Seq, targeted ctDNA panels, tumor mutational burden (TMB), and microsatellite instability (MSI) assays relevant to the IO space.

8:55 Immune Monitoring of Cancer Vaccines and Immunotherapy: What Have We Learned and Where to Go Next?
Sacha Gnjatic, Ph.D., Associate Professor, Tisch Cancer Institute, Hematology/Oncology, Immunology, Icahn School of Medicine at Mount Sinai
With clinical success of cancer immunotherapy, it is essential to understand the mechanisms of novel drugs by measuring their effect on immune cells, in the periphery and at the tumor site. Novel approaches and technologies are needed to address the complex task of identifying biomarkers of clinical activity and to improve the design of future therapies.

9:20 Biomarker Strategies for Cancer Vaccine Trials
Stephanie Traub, Ph.D., Biomarker Specialist, Centre for Drug Development, Cancer Research UK
Recent development in the PD-1 field have shown promising progress in combination of checkpoint inhibitors and cancer vaccines. However, one critical point hasn’t been answered yet, what is probably the initial pitfall of cancer vaccines, is the question how an effective immune response should look like and how this immune response can be monitored.

9:45 Coffee Break in the Exhibit Hall with Poster Viewing

NEW DIRECTIONS IN PERSONALIZED CELL THERAPY AND COMBINATIONS

10:45 CAR T Cells for Hematologic Malignancies
David L. Porter, M.D., Director, Blood and Marrow Transplantation; Jodi Fisher Horowitz Professor, Leukemia Care Excellence, University of Pennsylvania
Chimeric antigen receptors (CARs) combine an antigen recognition domain of an antibody with intracellular T cell signaling domains. Gene transfer techniques introduce the CAR into normal T cells redirecting them to target new antigens. CAR T cells targeting CD19 have unprecedented activity in relapsed and refractory B cell neoplasms including ALL, CLL and NHL. Newer approaches are being developed to enhance the activity, application, and safety of CAR T cells.

11:10 Tumor Microenvironment Modulation by Focal Adhesion Kinase Inhibitors
David Weaver, Ph.D., Vice President, Translational Medicine, Verastem
An immunosuppressive tumor microenvironment develops in many cancers. Immunotherapies can be more effective by combining with agents that modulate the tumor microenvironment. FAK inhibitors in Phase I and Phase II clinical trials and the preclinical rationale supporting these agents and their use in combination therapies will be introduced. The essential role of biomarkers of response and patient stratification will be discussed.

12:00 pm Close of Conference

Immuno-OncologyWorldCongress.com | 8
Immune Profiling in Cancer

WEDNESDAY, MAY 3

12:00 pm Conference Registration

12:40 Luncheon Presentation (Sponsorship Opportunity Available) or Lunch on Your Own

1:30 Dessert Break in the Exhibit Hall with Poster Viewing

PLENARY KEYNOTES

2:00 Chairperson’s Opening Remarks
Robert Iannone, M.D., Senior Vice President & Head, Immuno-Oncology, Global Medicines Development, AstraZeneca

2:05 Immunophenotyping to Differentiate Responder and Non-Responder Patients in Cancer Immunotherapy
George Poste, D.V.M., Ph.D., Chief Scientist, Complex Adaptive Systems, Arizona State University

The clinical benefits of immune checkpoint inhibitors in a variety of malignancies are unprecedented. Unfortunately, the level of positive therapeutic response is not consistent across different tumor classes and even in responsive tumor lineages non-responders still dominate. The need for comprehensive immunophenotyping to identify the mechanisms underlying these differential responses and better predict responder patients is an urgent clinical and economic imperative.

2:30 Rational Combinations with PD-L1 Antagonists
Robert Iannone, M.D., Senior Vice President & Head, Immuno-Oncology, Global Medicines Development, AstraZeneca

2:55 Non-Clinical Approaches to Predict Single Agent vs. Combination Value and Clinical Development Strategies for Emerging Cancer Immunotherapies
James Smothers, Ph.D., Senior Director & Head, Discovery, Immuno-Oncology & Combinations DPU, GlaxoSmithKline

A rapidly growing number of immunotherapy treatments for cancer have entered clinical trials and are being evaluated for both single agent and combination therapeutic value. Currently approved or mature Phase III evaluations of immuno-oncology treatments are largely limited to strategies that employ either autologous T-cell treatments or use of monoclonal antibodies (mAbs) to block T-cell checkpoints of either activation or exhaustion. Other modalities being explored in late phase preclinical and early clinical development include agonistic mAbs that modulate healthy immune cell populations, small molecule chemistries to inhibit or drive enzymatic function, and other emerging or reconsidered approaches to experimental medicine design. Non-clinical research studies historically support preclinical development and regulatory submission satisfaction and provide critical support of early clinical development hypotheses and clinical trial design including managing expectations of single agent efficacy or setting strategic vision for combination value through biology synergies. Moreover, following early clinical development milestones, an experimental medicine requires ongoing translational review of the clinical readouts beyond efficacy which in turn requires additional non-clinical analyses and experimental execution to drive results-based decision making and data-informed design of late stage clinical trials in anticipation and hope of drug approvals. Examples of non-clinical studies to support all of these activities will be reviewed including choice of experimental models and design.

3:20 Refreshment Break in the Exhibit Hall with Poster Viewing

THURSDAY, MAY 4

7:30 am Breakfast Presentation (Sponsorship Opportunity Available) or Morning Coffee

IMMUNOSEQUENCING AND IMMUNE CELL INFILTRATION PROFILING

9:00 Chairperson’s Remarks
Lance D. Miller, Ph.D., Associate Professor, Cancer Biology, Wake Forest University
9:05 Deep Sequencing of T Cell Receptor DNA as a Biomarker of Clonally Expanded TILs in Breast Cancer after Immunotherapy
David B. Page, M.D., Medical Oncology, Providence Cancer Center
In early-stage breast cancer (ESBC), the degree of tumor-infiltrating lymphocytes (TIL) predicts response to chemotherapy and overall survival. Immune checkpoint antibody (ipilimumab, anti-CTLA-4) plus tumor crioablation can induce TILs and improve survival in mice, and was recently evaluated as a pre-operative strategy in ESBC. We will describe how T cell receptor (TCR) DNA sequencing can be used in the context of immunotherapy to quantify TILs and to indirectly assess for antigen-reactive T cell clonal expansions.

9:30 Immunogenomics and Single Cell Omics for Cancer Precision Medicine
Olivier Elemento, Ph.D., Associate Professor & Associate Director, Institute for Computational Biomedicine, Department of Physiology and Biophysics, Weill Cornell Medicine
I will present my group’s work on the development and implementation of a clinical grade (CLIA) whole-exome sequencing based genomic test for precision cancer medicine and immunotherapy. A novel analytical pipeline that analyzes genomic profiles to unravel the immune landscape of tumors and integrates multi-omics features using machine learning to predict immunotherapy response will be described. Finally, high-throughput single cell genomics approaches to dissect the tumor microenvironment and unravel immune repertoires at the single cell resolution will be presented.

9:55 Comprehensive Immune Profiling for Response to Checkpoint Inhibitor Therapy: A Multi-Institutional Retrospective Study
Carl Morrison, M.D., D.V.M., President, Founder and CSO, OmniSeq Precision Medicine
Mutation burden, microsatellite instability, T cell receptor signaling, tumor infiltrating lymphocytes, PD-L1 IHC, and PD-L1/2 copy number have all been identified as candidate biomarkers for response to checkpoint inhibitors (CPI). We have developed a high-throughput CLIA NYS-CLEP approved assay to measure all of these variables in a single assay. A multi-institutional retrospective study of patients with prior CPI therapy and follow-up by RECIST criteria was performed using this approach to predict response.

10:25 Networking Coffee Break

10:45 Genomic Correlates of Immune Infiltration in Colorectal Cancer
Marios Giannakis, M.D., Ph.D., Medical Oncologist & Clinical Investigator, Dana-Farber Gastrointestinal Cancer Treatment Center; Researcher, Broad Institute of MIT and Harvard
Large-scale genomic characterization of tumors with clinicopathologic annotations can yield insights into cancer pathogenesis and immunobiology. We performed whole-exome sequencing of 619 colorectal cancers (CRCs) and integrated the results with tumor immunity, pathology, and survival data. We found that a higher tumor neoantigen load was associated with overall lymphocytic infiltration, tumor-infiltrating lymphocytes (TILs), memory T cells and CRC-specific survival. We also found positive selection of antigen-processing machinery mutations in TIL-rich tumors.

11:10 The Function and Specificity of T Cells in Colorectal Cancer
Arnold Han, M.D., Ph.D., Assistant Professor, Medicine, Digestive and Liver Diseases and Microbiology & Immunology, Columbia University
We have begun to systematically study the function and antigen specificity of TILs in colorectal cancer. Through single-cell approaches, we have characterized the TCR repertoire and diverse pro-inflammatory and regulatory phenotypes of colorectal tumor-infiltrating T cells. We are also working to study the TCR specificity of TILs through novel approaches.

11:35 B- and T-Cell Immune Repertoire Characterization by Anchored Multiplex PCR and Next-Generation Sequencing
Laura Griffin, Ph.D., Scientific Liaison, ArcherDX
The immune repertoire (IR) provides a means to monitor adaptive immune responses to disease, vaccination and therapeutic interventions. NGS-based IR characterization usually requires large primer panels to capture its extensive combinatorial diversity and a complex system of synthetic controls to account for differential amplification efficiency across segment combinations. Here, we discuss how Anchored Multiplex PCR (AMP) enables NGS-based IR characterization with a minimal set of unidirectional gene-specific primers and molecular barcodes that reduce amplification bias.

12:05 pm Genetic Biomarkers of Immune Responsiveness and Breast Cancer Immunogenicity
Lance D. Miller, Ph.D., Associate Professor, Cancer Biology, Wake Forest University
Immunotherapies are advancing in the clinic, but the ability to predict patient benefit remains a major challenge. Central to this problem is a lack of understanding of how tumor-intrinsic factors interact with the host immune system to influence patient outcomes. In this presentation, I will discuss genomic and bioinformatics strategies we’ve used to uncover cellular and genomic rules that appear to govern the immunogenic potential of breast and other cancers.

12:30 Enjoy Lunch on Your Own

PROFILING THE TUMOR MICROENVIRONMENT

1:40 Chairperson’s Opening Remarks
Sam Hanash, M.D., Ph.D., McCombs Institute for Cancer Early Detection and Treatment, MD Anderson Cancer Center

1:45 Density, Distribution and Composition of Immune Infiltrates Correlate with Survival in Merkel Cell Carcinoma
Michael T. Tetzlaff, M.D., Ph.D., Associate Professor, Pathology and Translational and Molecular Pathology, The University of Texas MD Anderson Cancer Center
Merkel cell carcinoma (MCC) is an aggressive cutaneous neuroendocrine carcinoma with frequent metastasis and death. Robust biomarkers predictive of clinical outcome are lacking, and few effective agents exist for MCC therapy. The emergence of immune checkpoint blockade therapies that mobilize antitumoral immunity provides a strong rationale to define the density, distribution, and composition of immune infiltrates in MCC to determine whether any of these impact clinical outcome and thus, could be reasonably leveraged in treatment strategies. We performed immune profiling for CD3, CD8, PD-1, and PD-L1 in a series of MCC with carefully annotated clinical outcomes and used automated image analysis to precisely quantify immune cell density at distinct tumor locations. We confirm a significant association between patient survival and the density of CD3+ and CD8+ T cells specifically at the tumor-stroma interface. Together, our findings provide a robust biomarker to facilitate risk stratification and prognosis in MCC and additional rationale to deploy immune checkpoint inhibitors in MCC treatment.

2:10 Defining Dynamic Changes in the Tumor Microenvironment with Tumor Development and Progression
Sam Hanash, M.D., Ph.D., McCombs Institute for Cancer Early Detection and Treatment, MD Anderson Cancer Center
While genomic alterations are driving forces in tumor development, the tumor microenvironment is critical to tumor development and metastasis. Molecular profiling including proteomics and metabolomics are contributing to defining the constituents of the microenvironment and their source, modifications, interactions and turnover, and how these features relate to tumor development and progression.

2:35 The Impact of STAT3 on Tumor Immunological Environment
Hua Yu, Ph.D., Professor & Co-Chair, Immuno-Oncology, Beckman Research Institute at City of Hope Comprehensive Cancer Center
A crucial role of STAT3 in promoting cancer has been established. STAT3 signaling within tumor cells and tumor-associated immune cells also induces immunosuppression. Our recent studies including metabolic profiling highlight the importance of STAT3 in regulating lipid metabolism in tumor cells and cancer stem cells. Extensive work has also demonstrated the significance of STAT3-regulated metabolism in suppressing tumor T cells. We plan to perform lipid metabolic profiling of tumor-associated T cells.

3:00 Close of Conference
David Kaufman, M.D., Ph.D., Executive Director, Translational Immunology & Oncology, Merck Research Laboratories

This presentation will cover: 1) examining the clinical utility of PD-L1 expression in classifying responders to immuno-oncology therapeutics, 2) evaluating novel biomarkers with the potential to describe fundamental features of tumor immunobiology across tumor types, and 3) forming a comprehensive biomarker signature approach – incorporating DNA and RNA-based biomarkers to determine patient treatment approaches in the era of combination cancer immunotherapy.

4:40 Driver-MapTM Targeted RNA Expression Profiling Solution: The Sensitivity of RT-PCR Combined with the Throughput and Range of NGS

Paul Diehl, Ph.D., COO, Collecta

5:10 Biomarkers for Combination Immunotherapy

Jeffrey Wallin, Ph.D., Group Leader/Senior Scientist, Oncology Biomarker Development, Genentech

The immune system’s ability to detect and destroy abnormal cells is the foundation of cancer immunotherapy. Activation of anti-tumor immunity by immune checkpoint blockade has demonstrated efficacy in a variety of cancers and although durable responses have been observed, combination approaches will be required to extend this benefit beyond a subset of patients. This talk will focus on biomarkers, with specific examples from atezolizumab (anti-PD-L1) clinical combination studies.

5:35 Developing Immunotherapy and Biomarkers in Prostate Cancer: Challenges and Strategies

Ravi Madan, M.D., Clinical Director, Genitourinary Malignancies Branch, National Cancer Institute, National Institutes of Health

There are many studies investigating immunotherapy combinations in prostate cancer, including androgen deprivation therapy, anti-androgen therapy, chemotherapy and radiopharmaceuticals. Emerging data suggests the potential for the development immune biomarker platforms and possibly even imaging biomarkers. These preliminary findings may have relevance in many cancers beyond prostate cancer.

5:45 Short Course and ThinkTank Registration

6:15 - 9:15 Dinner Executive ThinkTank*

SC6: Complementary Diagnostics

6:15 - 9:15 Dinner Short Course*

SC7: Immune Monitoring in Cancer

*Separate registration required

THURSDAY, MAY 4

7:30 am Breakfast Presentation (Sponsorship Opportunity Available) or Morning Coffee

STRATEGIES FOR IMMUNOTHERAPY COMBINATIONS

9:00 Chairperson’s Remarks

Timothy Yap, M.D., Ph.D., Associate Professor, Department of Investigational Cancer Therapeutics, The University of Texas MD Anderson Cancer Center

9:05 The Art of Immuno-Oncology: Overcome the Barriers to Personalized Cancer Medicine

Zhen Su, M.D., MBA, Vice President & Head of Global Medical Affairs – Oncology, EMD Serono

Recent advancement in immuno-oncology has significantly changed oncology practice worldwide. The clinical benefit of immune checkpoint blockades has been shown in multiple tumor settings especially the “hot tumors” with significant T cell infiltration. However, due to rapid clinical development of
these agents, there is a paucity of knowledge of how to integrate this new class of treatment into the treatment algorithm in daily practice. In addition, the complexity and challenges in biomarker development to assist patient selection for the checkpoint blockade also complicated the adaptation of such treatment in the real world setting. A deep dive of recent data and holistic approach in clinical setting is warranted to overcome the barriers to integrate immune-oncology into the personalized cancer medicine era.

9:30 Rational Design of Immunotherapy Combinations
Carol O’Hear, M.D., Ph.D., Associate Medical Director, Cancer Immunotherapy, Genentech

The cancer immunity cycle provides a framework to understand how alterations in the tumor micro-environment can be targeted to enhance clinical response to immunotherapy. In addition, biomarker data obtained through clinical trials has added to our understanding of how to optimize combination immunotherapy. Utilization of this information allows a patient’s immune deficiencies to be targeted rationally to maximize opportunities for clinical success.

9:55 Rational IO Combinations Based on the Presence or Absence of Tumor T Cell Inflammation
Jason Luke, M.D., Assistant Professor, Medicine, Melanoma and Developmental Therapeutics Clinics, University of Chicago

A subset of patients with cancer have a spontaneous anti-tumor immune response and T cell infiltration into tumor sites. The presence of this T cell-inflamed or non-inflamed tumor microenvironment can be most robustly described via gene expression profiling and can be used for IO combination target identification stratified by the presence or absence of T cell inflammation. This model and rationale IO combination therapies will be explored.

10:20 Networking Coffee Break

10:45 PD-1 Antibody, a Broad Spectrum Antineoplastic Therapy, Is Transforming Management of a Number of Cancers
Roy D. Baynes, M.D., Ph.D., Senior Vice President and Head, Global Clinical Development, CMO, Merck Research Laboratories

In an efficient and biologically targeted screening Phase II program, pembrolizumab has shown activity across more than twenty different cancers. Randomized studies have shown survival benefit for pembrolizumab over standard of care in metastatic melanoma, metastatic non-small cell lung cancer and 2nd line treatment of metastatic bladder cancer. Pembrolizumab is being explored in a number of different combination regimens, many of which are showing promising initial activity that has led to conducting randomized studies.

11:10 Immuno-Oncology Combinations: Raising the Tail of the Survival Curve
Timothy Yap, M.D., Ph.D., Associate Professor, Department of Investigational Cancer Therapeutics, The University of Texas MD Anderson Cancer Center

There have been exponential gains in immuno-oncology in recent times through the development of immune checkpoint inhibitors. Already approved by the FDA for selected cancers, immune checkpoint inhibitors also appear to have significant antitumor activity in multiple other tumor types. Nevertheless, not all patients benefit, and efforts should thus now focus on improving the efficacy of immunotherapy through the use of combination approaches and predictive biomarkers of response and resistance.

11:35 Clinical Activity of PDR001, an Anti-PD-1 Antibody, in Advanced Solid Tumors
Jennifer Mataraza, Ph.D., Senior Investigator II, Exploratory Immune Oncology, Novartis Institutes of Biomedical Research

PDR001 is a humanized anti-PD-1 IgG4 antibody that blocks the binding of PD-L1 and PD-L2 to PD-1. PDR001 binds to PD-1 with high affinity and inhibits the biological activity of PD-1. I will discuss patient case studies from our PDR001 Phase I FIH trial. In addition, I will highlight some of our early biomarker data from our PDR001 trials.

12:00 pm Novel Approaches for the Combination Immunotherapy of Cancer
Jon Wigginton, M.D., Senior Vice President, Clinical Development & CMO, MacroGenics

12:35 Luncheon Presentation: A Novel Phenotypic Platform for Predicting Tumor Response in Drug Development
Mark Paris, Ph.D., Technical Liaison, Mitra Biotech

COMBINING IMMUNOTHERAPY WITH OTHER MODALITIES

1:40 Chairperson’s Opening Remarks

1:45 Opportunities to Combine Targeted and Conventional Cancer Therapy with Immunotherapy
Philip Gotwals, Ph.D., Executive Director, Exploratory Immuno-Oncology, Novartis Institutes for BioMedical Research

Research in cancer therapeutics has largely focused on two distinct, independent lines of inquiry: efforts to understand the underlying cell autonomous, genetic drivers of tumorogenesis, and exploration of the mechanisms of protective tumor immunity. The integration of these potentially complementary research fields provides new opportunities to improve cancer treatments. This presentation will review insights into the effects of targeted therapies on the induction of anti-tumor immunity that may help advance the design of therapeutic combination strategies.

2:10 Combination Immunotherapy with Chemotherapy – Early Results from Clinical Trials
Glen J. Weiss, M.D., MBA, Director, Clinical Research and Phase I & II Clinical Trials, Cancer Treatment Centers of America, Goodyear, AZ

Recently, a number of new immunotherapies are available for clinical use for treating advanced cancer. A small portion of patients treated with single agent monoclonal antibody immunotherapy do experience an impressive durable response. Likely the next wave of approvals will involve combination therapy involving chemotherapy, targeted therapy, or additional immune-modulating agents. This lecture will highlight some of the current data on combination immunotherapy that have been evaluated in advanced cancers.

2:35 Close of Conference
Pricing and Registration Information

CONGRESS PRICING

BEST VALUE  
(Includes access to entire 3 days of programs, excludes short courses)  
Companies: $2449  
Academic, Government, Hospital-affiliated: $1199  
Registrations after March 17, 2017, and on-site:

SINGLE CONFERENCE  
(Includes access to 1 program, excludes short courses)  
Companies: $1849  
Academic, Government, Hospital-affiliated: $829  
Registrations after March 17, 2017, and on-site:

May 2 - 3  
- P1: Clinical and Translational Biomarkers in Drug Development  
- P2: Immuno-Oncology Biomarkers  
- P3: Personalized Immunotherapy

May 3 - 4  
- P4: Biomarkers for Patient Selection  
- P5: Immune Profiling in Cancer  
- P6: Combination Immunotherapy

SHORT COURSES

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SC1: Fit-for-Purpose Biomarker Assay Development and Validation (May 1, 1:00-4:00)  
SC2: Liquid Biopsy for Immuno-Oncology and Precision Medicine (May 1, 5:00-8:00)  
SC3: Preparing for Companion Dx Studies and FDA Submissions (May 1, 5:00-8:00)  
SC4: Next-Generation Sequencing as a Clinical Test (May 2, 6:00-9:00)  
SC5: PD-L1 Assays for Biomarkers and Companion Diagnostics (May 2, 6:00-9:00)  
SC6: Executive ThinkTank: Complementary Diagnostics (May 3, 6:15-9:15)  
SC7: Immune Monitoring in Cancer (May 3, 6:15-9:15)

ADDITIONAL REGISTRATION DETAILS

Each registration includes all conference sessions, posters and exhibits, food functions, and access to the conference proceedings link.

Handicapped Equal Access: In accordance with the ADA, the Cambridge Healthtech Institute is pleased to arrange special accommodations for attendees with special needs. All requests for such assistance must be submitted in writing to CHI at least 30 days prior to the start of the meeting.

To view our Substitutions/Cancellations Policy, go to healthtech.com/regdetails

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Please refer to the Registration Code below:

Please use keycode BIO F when registering!