Saturday, June 13

7:00 p.m.-8:00 p.m.  Opening Keynote Session  
                    \textit{Grand Ballroom C}

\textbf{Welcome}

\textbf{Perspectives on genomic approaches to cancer}
Todd R. Golub, Broad Institute of MIT and Harvard, Cambridge, MA

8:00 p.m.-9:30 p.m.  Welcome Reception  
                    \textit{Grand Ballroom A}

Sunday, June 14

7:00 a.m.-8:00 a.m.  Continental Breakfast  
                    \textit{Grand Ballroom A}

8:00 a.m.-10:00 a.m.  Plenary Session 1: Clinical Genomics of Hematologic Malignancies  
                     \textit{Grand Ballroom C}  
                     \textbf{Session Chairperson: Charles M. Mullighan, St. Jude Children’s Research Hospital, Memphis, TN}

\textbf{Precision medicine in acute lymphoblastic leukemia}
Charles M. Mullighan

\textbf{The evolutionary landscape of CLL: Therapeutic implications}
Catherine J. Wu, Dana-Farber Cancer Institute, Boston, MA

\textbf{Functional genomics for discovery of pathogenic mechanisms of disease and novel therapies for hematologic malignancies}
Jeffrey W. Tyner, OHSU Knight Cancer Institute, Portland, OR

\textbf{Precision in Pediatric Sequencing (PIPseq): Clinical implementation of genomic sequencing into pediatric hematology-oncology practice*}
Maria Luisa Sulis, Columbia University Medical Center, New York, NY

10:00 a.m.-10:30 a.m.  Break  
                    \textit{Grand Ballroom Foyer}

\*Short talks from proffered papers
10:30 a.m.-12:30 p.m.  
**Plenary Session 2: Clinical Genomics of Solid Tumors 1**  
*Grand Ballroom C*  
*Session Chairperson: Arul Chinnaiyan, University of Michigan, Ann Arbor, MI*

**Clinical genomics alters care, informs new science**  
Barry S. Taylor, Memorial Sloan Kettering Cancer Center, New York, NY

**Advances in molecular characterization of colorectal cancer and clinical applications**  
Sabine Tejpar, University of Leuven, Leuven, Belgium

**The application of integrative sequencing for precision oncology**  
Arul Chinnaiyan

**Integrated genomic analysis of a recurrent ghost cell odontogenic carcinoma**  
Pinaki Bose, British Columbia Cancer Agency, Vancouver, BC, Canada

**Molecular profiling of advanced solid tumors at Princess Margaret Cancer Centre and patient outcomes with genotype-matched clinical trials**  
Philippe L. Bedard, Princess Margaret Cancer Centre, Toronto, ON, Canada

12:30 p.m.-3:00 p.m.  
**Free Time/Lunch on Own**

3:00 p.m.-5:00 p.m.  
**Plenary Session 3: Single Cell and Circulating Free Nucleic Acid Sequencing**  
*Grand Ballroom C*  
*Session Chairperson: Luis A. Diaz, Johns Hopkins Kimmel Comprehensive Cancer Center, Baltimore, MD*

**Novel clinical applications of cancer genomics**  
Luis A. Diaz

**Single cell RNA-sequencing of circulating tumor cells**  
David Miyamoto, Massachusetts General Hospital, Charlestown, MA

**Extracellular RNA: A next frontier of biomarker research for precision medicine**  
Muneesh Tewari, University of Michigan, Ann Arbor, MI

**Circulating tumor DNA as a precision marker of aggressive prostate cancer and recurrence**  
Adam G. Sowalsky, Beth Israel Deaconess Medical Center, Boston, MA

**Analysis of ctDNA using the mFastSeqS and plasmaSeq methods for screening and therapy monitoring in prostate cancer patients**  
Jelena Belic, Institute of Human Genetics, Medical University of Graz, Graz, Styria, Austria

*Short talks from proffered papers*
5:15 p.m.-7:15 p.m.  Panel Discussion: Panels vs. Comprehensive Sequencing and Implementation into Regular Clinical Practice  
Discussion Chairperson: Arul Chinnaiyan, University of Michigan, Ann Arbor, Michigan  
Grand Ballroom C  

Panelists:  
Charles M. Mullighan, St. Jude Children’s Research Hospital, Memphis, TN  
Donald (Will) Parsons, Baylor College of Medicine Cancer Center, Houston, TX  
John D. Carpten, TGen, Phoenix, AZ  
David B. Solit, Memorial Sloan Kettering Cancer Center, New York, NY

Monday, June 15

7:00 a.m.-8:00 a.m.  Continental Breakfast  
Grand Ballroom A

8:00 a.m.-10:00 a.m.  Plenary Session 4: “N of 1” and Exceptional Responders  
Grand Ballroom C  
Session Chairperson: Elaine R. Mardis, Washington University School of Medicine, St. Louis, MO  

Clinical application of next-generation sequencing as a guide to treatment selection  
David B. Solit, Memorial Sloan Kettering Cancer Center, New York, NY

Open-source, crowdsourcing-capable tools for N of 1 cancer genomics  
Elaine R. Mardis

Understanding response and resistance to targeted therapies through the study of extraordinary responders  
Nikhil Wagle, Dana-Farber Cancer Institute, Boston, MA

Precision medicine for newly diagnosed and refractory/recurrent pediatric cancer patients: Lessons learned from “N=1” studies*  
Troy A. McEachron, Integrated Cancer Genomics Division, Translational Genomics Research Institute, Phoenix, AZ

10:00 a.m.-10:30 a.m.  Break  
Grand Ballroom Foyer

*Short talks from proffered papers
10:30 a.m.-12:30 p.m.  Plenary Session 5: Clinical Genomics of Solid Tumors 2
Grand Ballroom C
Session Chairperson: Gordon B. Mills, The University of Texas MD Anderson Cancer Center, Houston, TX

A platform for comprehensive clinical sequencing to support oncology: Early lessons, opportunities, and challenges
John D. Carpten, TGen, Phoenix, AZ

“Next-gen” genomics-based clinical trials
Lillian L. Siu, Princess Margaret Cancer Centre, Toronto, ON, Canada

Clinical genomics for children with solid tumors: Current realities and future opportunities
D. William Parsons, Texas Children’s Cancer Center, Baylor College of Medicine, Houston, TX

Delivering on the promise of personalized medicine
Gordon B. Mills

12:30 p.m.-3:00 p.m.  Poster Session and Lunch
Grand Ballroom B

3:00 p.m.-5:00 p.m.  Panel Discussion: Challenges and Opportunities of Genomics-Driven Clinical Trials
Grand Ballroom C
Discussion Chairperson: Elaine R. Mardis, Washington University School of Medicine, St. Louis, MO

Panelists:
Barbara A. Conley, National Cancer Institute-DCTD, Rockville, MD
Patricia M. LoRusso, Yale Cancer Center, New Haven, CT
Lillian L. Siu, Princess Margaret Cancer Centre, Toronto, ON, Canada

Tuesday, June 16

7:00 a.m.-8:00 a.m.  Continental Breakfast
Grand Ballroom A

8:00 a.m.-10:00 a.m.  Plenary Session 6: Personalized Immunotherapies
Grand Ballroom C
Session Chairperson: Renier J. Brentjens, Memorial Sloan Kettering Cancer Center, New York, NY

Cancer genomes and immunotherapy efficacy
Timothy A. Chan, Memorial Sloan Kettering Cancer Center, New York, NY

Human melanoma neoantigens: Identification and vaccination
Gerald P. Linette, Washington University, St. Louis, MO

Moving CAR T cell therapy forward: CARs and armored CARs
Renier J. Brentjens
10:00 a.m.-10:15 a.m.  Break  
Grand Ballroom Foyer

10:15 a.m.-12:15 p.m.  Plenary Session 7: Model and Cell Systems for Studying Therapeutic Response and Acquired Resistance  
Grand Ballroom C  
Session Chairperson: Charles L. Sawyers, Memorial Sloan Kettering Cancer Center, New York, NY

Overcoming resistance to kinase inhibitors in lung cancer  
Jeffrey A. Engelman, Massachusetts General Hospital, Boston, MA

Reflections on precision medicine  
Charles L. Sawyers

Precision genomic medicine improves clinical outcomes in advanced cancer patients*  
Lincoln D. Nadauld, Intermountain Healthcare, St. George, UT