Saturday, May 6

4:15 p.m.–5:30 p.m.	**Plenary Session 1: Initiating and Stem Cells in Hematologic Malignancies** Harbor Ballroom 3
4:15 p.m.–4:45 p.m.	Mechanisms of formation and progression of preleukemic stem cells Ulrich G. Steidl, Albert Einstein College of Medicine, Bronx, NY
4:45 p.m.–5:15 p.m.	Hijacking of emergency myelopoiesis pathways in myeloid leukemia Emmanuelle Passegué, Columbia University, New York, NY
5:15 p.m.–5:30 p.m.	Modeling clonal hematopoietic disorders in zebrafish using combinatorial mutagenesis and color barcoding* Serine Avagyan, Dana-Farber Cancer Institute, Boston Children's Hospital, Boston, MA
5:30 p.m.–5:45 p.m.	**Break** Harbor Ballroom Foyer
5:45 p.m.–7:00 p.m.	**Welcome Remarks and Opening Keynote Lecture** Harbor Ballroom 3
5:45 p.m-6:00 p.m.	Welcome Remarks
6:00 p.m.–6:45 p.m.	Engineered T cells: Opportunities and challenges Carl H. June, University of Pennsylvania, Philadelphia, PA
6:45 p.m.–7:00 p.m.	Discussion
7:00 p.m.–9:00 p.m.	**Opening Reception** Harbor Ballroom 1/2

Sunday, May 7

7:00 a.m.–8:00 a.m.	**Continental Breakfast and Networking Roundtables** Harbor Ballroom 1/2

**Short talk from proffered abstract*

CONFERENCE PROGRAM

8:00 a.m.–10:00 a.m.	**Plenary Session 2: The Cellular and Molecular Basis of Drug Resistance and Response to Therapy Session** Harbor Ballroom 3
8:00 a.m.–8:30 a.m.	Genetics and mechanisms of chemotherapy resistance in relapse acute lymphoblastic leukemia Adolfo Ferrando, Columbia University, New York, NY
8:30 a.m.–9:00 a.m.	Tumor heterogeneity and clonal evolution in CLL in relationship to therapy Catherine J. Wu, Dana-Farber Cancer Institute, Boston, MA
9:00 a.m.–9:30 a.m.	Intratumor heterogeneity and its role in therapeutic escape in multiple myeloma Rodger E. Tiedemann, Princess Margaret Cancer Centre, Toronto, ON, Canada
9:30 a.m.–9:45 a.m.	Mechanisms of NT5C2 activating mutations driving thiopurine resistance in relapsed lymphoblastic leukemia* Chelsea Dieck, Columbia University, New York, NY
9:45 a.m.–10:00 a.m.	Therapeutic synergy between tigecycline and venetoclax in a preclinical model of MYC/BCL2 double-hit lymphoma* Micol Ravà, Istituto Italiano di Tecnologia, Milano, Italy
10:00 a.m.–10:30 a.m.	**Break** Harbor Ballroom Foyer
10:30 a.m.–1:00 p.m.	**Plenary Session 3: Chemical Biology** Harbor Ballroom 3
10:30 a.m.–11:00 a.m.	Title to be announced Nathanael S. Gray, Dana-Farber Cancer Institute, Boston, MA
11:00 a.m.–11:30 a.m.	Therapeutic targeting of epigenetic regulators in acute leukemia Jolanta E. Grembecka, University of Michigan, Ann Arbor, MI
11:30 a.m.–12:00 p.m.	Targeting the $CRL4^{CRBN}$ E3 ligases for treatment of hematologic cancers Rajesh Chopra, The Institute for Cancer Research, London, United Kingdom
12:00 p.m.–12:30 p.m.	Targeted therapies as molecular probes for comprehensive preclinical evaluation Mark Dawson, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia
12:30 p.m.–12:45 p.m.	Degradation of leukemia oncogenes: A novel approach to therapy of leukemia* Sara Buhrlage, Dana-Farber Cancer Institute, Boston, MA
12:45 p.m.–1:00 p.m.	SY-1425 (tamibarotene), a potent and selective RARα agonist, induces changes in the transcriptional regulatory circuit of AML cells leading to differentiation* Christopher Fiore, Syros Pharmaceuticals, Cambridge, MA

**Short talk from proffered abstract*

1:00 p.m.–3:00 p.m. **Poster Session/Lunch**
Harbor Ballroom 1/2

Supported by Amgen

3:00 p.m.–5:00 p.m. **Plenary Session 4: Aberrant RNA Metabolism**
Harbor Ballroom 3

3:00 p.m.–3:30 p.m. Spliceosome gene mutations in MDS: Biology and potential therapeutic strategies
Matthew J. Walter, Washington University School of Medicine, St. Louis, MO

3:30 p.m.–4:00 p.m. The role of malignant RNA editing in leukemia stem cell generation
Catriona H. M. Jamieson, UCSD Moores Cancer Center, La Jolla, CA

4:00 p.m.–4:30 p.m. RNA regulators and the control of self-renewal
Michael G. Kharas, Memorial Sloan Kettering Cancer Center, New York, NY

4:30 p.m.–4:45 p.m. A specialized translation program in quiescent cancer cells*
Shobha Vasudevan, Massachusetts General Hospital, Harvard Medical School, Boston, MA

4:45 p.m.–5:00 p.m. MicroRNA-130a regulates hematopoietic stem cell self-renewal and erythroid differentiation*
Gabriela Krivdova, Princess Margaret Cancer Centre, University Health Network, Toronto, ON, Canada

5:00 p.m.–6:00 p.m. **Plenary Session 5: Initiating and Stem Cells in Hematologic Malignancies II**
Harbor Ballroom 3

5:00 p.m.–5:30 p.m. Title to be announced
Benjamin L. Ebert, Brigham & Women's Hospital, Boston, MA

5:30 p.m.–5:45 p.m. TOX is a novel oncogenic driver in T-cell acute lymphoblastic leukemia and regulates nonhomologous end joining DNA repair*
David Langenau, Massachusetts General Hospital, Boston, MA

5:45 p.m.–6:00 p.m. Single-cell transcriptional profiling of acute myeloid leukemia identifies self-renewing stem cells*
Zohar Sachs, University of Minnesota, Minneapolis, MN

**Short talk from proffered abstract*

CONFERENCE PROGRAM

Monday, May 8

7:00 a.m.–8:00 a.m.	**Continental Breakfast and Networking Roundtables** Harbor Ballroom 1/2
8:00 a.m.–10:30 a.m.	**Plenary Session 6: Genomics** Harbor Ballroom 3
8:00 a.m.–8:30 a.m.	Genetic predisposition to hematopoietic malignancies Lucy A. Godley, University of Chicago, Chicago, IL
8:30 a.m.–9:00 a.m.	Large-scale population studies to inform patients' tailored clinical management Elli Papaemmanuil, Memorial Sloan Kettering Cancer Center, New York, NY
9:00 a.m.–9:30 a.m.	Title to be announced Charles G. Mullighan, St. Jude Children's Research Hospital, Memphis, TN
9:30 a.m.–10:00 a.m.	CRISPR-Cas9 genetic screens uncover a B cell receptor-MYD88 superpathway in diffuse large B cell lymphoma Louis M. Staudt, National Cancer Institute, Bethesda, MD
10:00 a.m.–10:15 a.m.	FBXO11 is recurrently mutated in Burkitt lymphoma and its inactivation accelerates lymphomagenesis in Eμ-myc mice* Chiara Pighi, Boston Children's Hospital, Harvard Medical School, Boston, MA
10:15 a.m.–10:30 a.m.	Characterization of lineage vs. context-dependent essential genes in multiple myeloma using CRISPR/Cas9 genome editing* Constantine S. Mitsiades, Dana-Farber Cancer Institute, Boston, MA
10:30 a.m.–11:00 a.m.	**Break** Harbor Ballroom Foyer
11:00 a.m.–1:00 p.m.	**Plenary Session 7: Cell Death Pathways** Harbor Ballroom 3
11:00 a.m.–11:30 a.m.	Directing blood cancer therapy with mitochondrial BH3 profiling Anthony G. Letai, Dana-Farber Cancer Institute, Boston, MA
11:30 a.m.–12:00 p.m.	CDK6: At the interface of Rb and p53 Veronika Sexl, VetmedUni, Institute of Pharmacology and Toxicology, Vienna, Austria
12:00 p.m.–12:30 p.m.	Immunomodulatory therapy of multiple myeloma with IAP antagonists Marta Chesi, Mayo Clinic Arizona, Scottsdale, AZ
12:30 p.m.– 12:45 p.m.	Probing mitochondria to guide personalized therapy for acute myeloid leukemia* Shruti Bhatt, Dana-Farber Cancer Institute, Boston, MA

**Short talk from proffered abstract*

12:45 p.m.-1:00 p.m. — p53-related protein kinase is a novel prognostic marker and therapeutic target in multiple myeloma*
Francesca Cottini, The Ohio State University, Columbus, OH

1:00 p.m.-3:00 p.m. — **Lunch/Networking Roundtables**
Harbor Ballroom 1/2

3:00 p.m.-5:00 p.m. — **Plenary Session 8: Immunotherapy**
Harbor Ballroom 3

3:00 p.m.-3:30 p.m. — Targeting CARs to the TRAC locus enhances T-cell potency
Justin Eyquem, Memorial Sloan Kettering Cancer Center, New York, NY

3:30 p.m.-4:00 p.m. — Engineering effective and safe T-cell therapy
Stanley R. Riddell, Fred Hutchinson Cancer Research Center, Seattle, WA

4:00 p.m.-4:30 p.m. — Targetable genetic bases of immune evasion in lymphoma
Margaret A. Shipp, Dana-Farber Cancer Institute, Boston, MA

4:30 p.m.-5:00 p.m. — Epigenetic regulation of cancer immune surveillance processes
Ricky W. Johnstone, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia

5:00 p.m.-5:45 p.m. — **Panel Discussion: Immunotherapy**
Harbor Ballroom 3

Moderator: Catherine J. Wu, Dana-Farber Cancer Institute, Boston, MA

**Short talk from proffered abstract*

CONFERENCE PROGRAM

Tuesday, May 9

7:00 a.m.–8:00 a.m.	**Continental Breakfast and Networking Roundtables** Harbor Ballroom 1/2
8:00 a.m.–10:00 a.m.	**Plenary Session 9: Epigenetics** Harbor Ballroom 3
8:00 a.m.–8:30 a.m.	Role of mutations in epigenetic regulators in pathogenesis of myeloid malignancies Ross L. Levine, Memorial Sloan Kettering Cancer Center, New York, NY
8:30 a.m.–9:00 a.m.	Deregulation and oncogenic functions of the NSD2/MMSET histone methyl transferase in hematologic malignancies Jonathan D. Licht, University of Florida Health Cancer Center, Gainesville, FL
9:00 a.m.–9:30 a.m.	Epigenetic program in aging and MDS Maria E. Figueroa, University of Miami, Miami, FL
9:30 a.m.–9:45 a.m.	Polycomb repressive complex 2 inactivation induces primary chemotherapy resistance in T-ALL by upregulating the TRAP1 mitochondrial chaperone* Alejandro Gutierrez, Boston Children's Hospital, Boston, MA
9:45 a.m.–10:00 a.m.	BRD9 defines a novel mammalian SWI/SNF (BAF) complex configuration which supports proliferation in AML* Brittany Michel, Dana-Farber Cancer Institute, Boston, MA
10:00 a.m.–10:15 a.m.	**Break** Harbor Ballroom Foyer
10:15 a.m.–11:45 a.m.	**Plenary Session 10: Tumor Microenvironment and Tumor-Host Interaction** Harbor Ballroom 3
10:15 a.m.–10:45 a.m.	Metabolic vulnerabilities in AML David T. Scadden, Massachusetts General Hospital, Boston, MA
10:45 a.m.–11:15 a.m.	Image-based tracking of cancer heterogeneity and therapy resistance Tannishtha Reya, University of California San Diego, La Jolla, CA
11:15 a.m.–11:45 a.m.	Targeting immune receptor mutations in lymphoma Hans-Guido Wendel, Memorial Sloan Kettering Cancer Center, New York, NY

**Short talk from proffered abstract*