Tumor Microenvironment

A01 Plasticity potential of the putative multiple myeloma cancer stem cell. Stacy W. Blain, SUNY Downstate Medical Center, Brooklyn, NY, United States.

A02 Altered myeloid cells in the tumor microenvironment promote growth of T cell acute lymphoblastic leukemia. Lauren IR Ehrlich, The University of Texas at Austin, Austin, TX, United States.

A03 Novel functions of matrix metalloproteinase-9 contributing to B-cell chronic lymphocytic leukemia progression. Angeles García-Pardo, Centro de Investigaciones Biologicas, CSIC, Madrid, Spain.

A04 The tumor microenvironment is the main source of IL-6 for plasmacytoma development in mice. Siegfried Janz, University of Iowa, Iowa City, United States.

A05 A rare subpopulation of quiescent, drug resistant stem cells exists in patients’ ALL cells growing in mice determined by the bone marrow niche. Irmela Jeremias, Helmholtz Center Munich, Munich, Germany.

A06 The chemokine receptor CXCR4 is essential for the maintenance of T cell acute lymphoblastic leukemia. Lauren A. Pitt, New York University School of Medicine, New York, NY, United States.

A07 Loss of Rpl22 promotes tumor progression through regulation of angiogenesis and dissemination. Shuyun Rao, Fox Chase Cancer Center, Philadelphia, PA, United States.

A08 A novel role for the high mobility group A1 (HMGA1) chromatin remodeling protein in mediating AML-niche crosstalk. Linda M.S. Resar, The Johns Hopkins University School of Medicine, Baltimore, MD, United States.

A09 CD138-negative myeloma cells regulate mechanical properties of bone marrow stromal cells through SDF-1/CXCR4/AKT signaling pathway. Dan Wu, Department of Radiology, Wake Forest School of Medicine, Winston Salem, NC, United States.

Immunotherapy

A10 Activation of the STING pathway enhances immunity and improves survival in a murine myeloid leukemia model. Emily K. Curran, University of Chicago, Chicago, IL, United States.

A11 GIFT4-reprogrammed leukemic B cells for CLL immunotherapy. Jiusheng Deng, Winship Cancer Institute Emory University, Atlanta, GA, United States.

A12 Combination of the anti-CD38 monoclonal antibody daratumumab and all-trans retinoic acid. Inger S. Nijhof, UMC Utrecht, Utrecht, Netherlands.

A13 Anti-CD38-Attenuke™: a myeloma-targeting immunocytokine containing an engineered IFNα that provides >10,000-fold enhanced tumor-specific activity compared to native IFNα. Sarah Pogue, Teva Pharmaceuticals, Redwood City, CA, United States.
A14 Cellular immunotherapy for refractory hematological malignancies; Haploidentical donor lymphocyte infusions generate an allogeneic effect that targets leukemia. John L. Reagan, The Warren Alpert Medical School of Brown University/Rhode Island Hospital, Providence, Rhode Island, United States.

A15 In vivo efficacy of a CD38-specific engineered toxin body. Erin K. Willert, Molecular Templates, Georgetown, TX.

Drug Discovery

A16 The tyrosine phosphatase PRL3 as a novel drug target in T-cell acute lymphoblastic leukemia. Jessica Blackburn, Massachusetts General Hospital, Boston, MA, United States.

A17 Non-RGD-based strategies to target the thyroid hormone receptor-integrin αvβ3: Lessons from myeloma cells. Paul J. Davis, Albany Medical College, Albany, NY, United States.

A18 MicroRNA-29b replacement inhibits proteasomes and disrupts the aggresome-autophagy pathway to enhance the antmyeloma benefit of bortezomib. James Driscoll, University of Cincinnati College of Medicine, Cincinnati, OH, United States.

A19 MALT1 inhibition as an anchor for combinatorial therapy of ABC-DLBCL. Lorena Fontan, Weill Cornell Medical College, New York, United States.

A20 Inhibition of RNA Polymerase I transcription by CX-5461 as a completely new approach to treat highly refractory haematological malignancies. Ross D. Hannan, Sir Peter MacCallum Department of Oncology, University of Melbourne, Parkville, Australia.

A21 Inhibition of USP7 for the treatment of multiple myeloma and other malignancies. Suress Kumar, Progenra, Inc, Malvern, PA, United States.

A22 Sphingosine kinase-1 as a potential therapeutic target in natural killer-large granular lymphocyte leukemia. Francis R. LeBlanc, Penn State Hershey Cancer Institute, Hershey, Pennsylvania, United States.

A23 Type II JAK2 inhibitor NVP-CHZ868 has potent activity in JAK2-dependent B-cell acute lymphoblastic leukemias (B-ALLs) in vivo. Loretta S. Li, Dana-Farber Cancer Institute, Boston, MA, United States.

A24 The dual PI3K δ/γ inhibitor, RP6530, in combination with Ibrutinib or fludarabine, synergistically enhances cytotoxicity in primary CLL cells in vitro. Swaroop Vakkalanka, Rhizen Pharmaceuticals SA, Fritz-Courvoisier 40, La Chaux-De-Fonds, Switzerland.

A25 Dual inhibition of Flt3 and Fes tyrosine kinases potently blocks proliferation of AML cells expressing an active Flt3 mutant. Mark Weir, Microbiology and Molecular Genetics, University of Pittsburgh School of Medicine, Pittsburgh, PA, United States.

Other: Leukemia

A26 Cancer-associated mutations impair the functional association of ETO/MTG family members with E proteins. Pankaj Acharya, Vanderbilt University, Nashville, TN, United States.
A27 Risk of hematopoietic cancer associated mortality among workers in the poultry slaughtering and processing industries. Saritha Bangara, UNTHSC, Fort Worth, Texas, United States.

A28 Use of a high-throughput screen of primary leukemia cells to personalize therapy for relapsed/refractory AML: Proof of concept and clinical implementation of precision medicine. Mark G. Frattini, Columbia University Medical Center, New York, NY, United States.

A29 Characterization of new cryptic rearrangements of the erythropoietin receptor in Ph-like acute lymphoblastic leukemia. Ilaria Iacobucci, Department of Pathology, St Jude Children's Research Hospital, Memphis, TN, United States.

A30 A large-scale transgenic screen in zebrafish identifies TOX as a novel oncogene in T-cell acute lymphoblastic leukemia. David Langenau, Massachusetts General Hospital, Charlestown, MA, United States.


A33 Role for the tumor suppressor phf6 in hematopoiesis. Finola E. Moore, Massachusetts General Hospital, Charlestown, MA, United States.

A34 Therapeutic potential of the novel mTOR inhibitor Torin-2 to overcome AKT reactivation in B-precursor acute lymphoblastic leukemia (B-pre ALL). Luca M. Neri, Department of Morphology, Surgery and Experimental Medicine, University of Ferrara, Ferrara, Italy.


Other: Lymphoma

A36 Decreased levels of the transcription factors Ik-1 and MZF1 contribute to upregulation of IGF-IR expression in NPM-ALK+ T-cell anaplastic large-cell lymphoma. Hesham M. Amin, The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

A37 The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA. Florian A. Karreth, Weill Cornell Medical College, New York, NY, United States.

Other: Myelodysplastic Syndrome and Myeloproliferative Neoplasms

A38 Remodeling of the malignant bone marrow niche represents a therapeutic target. Timothy B. Campbell, University of California, San Francisco, CA, United States.

A39 Initial characterization of genetically engineered mice carrying a conditional allele of a splicing factor gene (U2AF1) commonly mutated in myeloid disorders. Dennis Liang Fei, National Institutes of Health, Bethesda, MD, United States.

A41 Life-threatening pericardial effusion following resolution of transient myeloproliferative disorder (TMD). Nitya A. Narayan, Rush University Medical Center, Chicago, IL, United States.

Other: Myeloma

A42 Quantification of MYC expression and mTORC signaling as biomarkers of BET inhibition in multiple myeloma. Anna Kalota, University of Pennsylvania, Philadelphia, PA, United States.

A43 Opposing Roles of The 19S regulatory- and 20S core-proteasomal subunits in controlling sensitivity of multiple myeloma cells to proteasome inhibition. Martin Kampmann, Howard Hughes Medical Institute and University of California San Francisco, San Francisco, CA, United States.


A45 Osteoblastic niche supports the growth of quiescent multiple myeloma cells. Nami McCarty, University of Texas-Health Science Center at Houston, Houston, Texas, United States.

Other

A46 Real time niche tracking of cancer stem cell cycle kinetics using a novel bi-cistronic lentiviral reporter. Gabriel Pineda, UCSD Moores Cancer Center, La Jolla, CA, United States.
Poster Session B
Monday, September 22, 2014
8:00 p.m. – 10:30 p.m.
Freedom and Independence Ballrooms

Genomics

**B01** Mechanisms of treatment resistance following Ras targeted therapy in acute myeloid leukemia. Craig E. Eckfeldt, University of Minnesota, Minneapolis, MN, United States.

**B02** Novel microRNA-Controlled tumor suppressor networks in AML. Sara E. Meyer, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States.

**B03** Very poor outcome and chemoresistance of acute myeloid leukemia patients with TP53 mutations: Correlation with complex karyotype and clinical outcome. Cristina Papayannidis, “Seràgnoli” Institute of Hematology, Bologna University School of Medicine, Bologna, Italy.

**B04**, **PR02** Investigating the use of tyrosine kinase inhibitors in Ph-like ALL. Kathryn G. Roberts, St. Jude Children's Research Hospital, Memphis, TN, United States.

**B05** Transcriptional antagonism between the cooperative oncogenes TLX1 and NOTCH1 in T-cell acute lymphoblastic leukemia. Pieter Van Vlierberghe, Center for Medical Genetics, Ghent University, Ghent, Oost-Vlaanderen, Belgium.

**B06** Distinct genomic profiles and targetable alterations revealed by FoundationOne® Heme in hematolymphoid malignancies in adolescents and young adults. Kai Wang, Foundation Medicine, Inc, Cambridge, MA, United States.

**B07** Prevalence of the most common fusion gene transcripts in 1080 Egyptian pediatric acute lymphoblastic leukemia patients: Children Cancer Hospital Egypt (CCHE) experience. Dina Yassin, Children Cancer Hospital Egypt (CCHE) - Clinical Pathology Department, Cairo, Egypt.

**B08** elf4E3 forms a novel cap-binding complex for mRNA translation initiation. Ari L. Landon, University of Maryland, Baltimore, MD, United States.

**B09**, **PR04** Exploiting oncogene-induced DNA replicative stress as synthetic lethal approach to target myeloma. Francesca Cottini, Dana-Farber Cancer Institute, Boston, MA, United States.

Cell Death Pathways

**B10** Studying BCL-2 dependence using BH3 profiling in a phase 2 clinical trial of ABT-199 in acute myeloid leukemia. Leah Hogdal, Dana Farber Cancer Institute, Boston, MA, United States.

**B11** Drug repositioning improves synergistic interactions between HDAC inhibitors and nucleoside analogs in AML and MDS models. Roberto R. Rosato, Houston Methodist Hospital Cancer Center, Houston, TX, United States.

**B12** elf4E deregulation drives simultaneous expression of B-cell lymphoma oncogenes. Leandro Cerchietti, Weill Cornell Medical College, Cornell University, New York, NY, United States.
B13, PR05 DLBCL tumors are sensitized to ferroptosis, a regulated form of nonapoptotic cell death. Wan Seok Yang, Columbia University, New York, NY, United States.

B14  Hematopoietic RIPK1 deficiency results in bone marrow failure due to apoptosis and RIPK3-mediated necroptosis. Justine R. Roderick, UMass Medical School, Worcester, MA, United States.

B15 Targeting SQSTM1/p62 induces cargo-loading failure and converts autophagy to apoptosis via NBK/Bik in human multiple myeloma cells. Steven Grant, Virginia Commonwealth University, Richmond, VA, United States.

B16 The pro-apoptotic effect of dexamethasone mediated by GILZ and Bim up-regulation is related to genetic heterogeneity of multiple myeloma. Charlotte Kervoëlen, Myelomax, Inserm UMR892, CNRS UMR6299, Université de Nantes, Nantes, France.

B17 Metformin suppresses the molecular chaperone GRP78 to uncouple aggresomes from the autophagy pathway and synergistically enhances the anti-myeloma effect of bortezomib. Ehsan Malek, University of Cincinnati College of Medicine, Cincinnati, OH, United States.

Clinical Trials

B18 Quantification of BTK engagement by ibrutinib in peripheral blood mononuclear cells in a phase I clinical study. Shalini Chaturvedi, Janssen R&D, Spring House, PA, United States.


B20 Pharmacokinetics of ibrutinib in subjects with varying degrees of hepatic impairment: Results from an open-label, multicenter study. Donna Skee, Janssen Research and Development, Raritan, NJ, United States.

Epigenetics


B22 Genome-wide methylation analysis reveals an independently validated CpG island methylator phenotype associated with favorable prognosis in acute myeloid leukemia. Andrew D. Kelly, Temple University School of Medicine, Philadelphia, PA, United States.


B24, PR03 Delineating the roles of lysine 27 methylation-associated epigenetic modulators in T cell leukemia. Panagiotis Ntziachristos, New York University, New York City, NY, United States.

B26 Role of ribosomal protein, Rpl22 in regulating leukemic transformation. Nehal Solanki Patel, Fox Chase Cancer Center, Philadelphia, PA, United States.

B27 Epigenetic regulation of stem cell fate in leukemic subpopulations. Hsing-Chen Tsai, Johns Hopkins School of Medicine, Baltimore, MD, United States.

B28 Co-occupancy of AML1-ETO and N-CoR defines a dominant phenotypic signature in leukemic cells. Sayyed K. Zaidi, University of Vermont, Burlington, VT, United States.

B29 Dnmt3a loss-of-function and Idh2 neomorphic mutations interact to promote malignant hematopoiesis. Xiaotian Zhang, Baylor College of Medicine, Houston, TX, United States.

B30, PR01 The histone demethylase Jmd1c is required for MLL-AF9 leukemia initiating cell homeostasis through modulating Hoxa9-controlled transcription program. Nan Zhu, Memorial Sloan Kettering Cancer Center, New York, NY, United States.

B31 Genome-wide studies in chronic myelomonocytic leukemia reveal specific DNA methylation signature at regulatory regions associated with response to decitabine and uncover novel mechanism of resistance. Maria E. Figueroa, University of Michigan Medical School, Ann Arbor, MI, United States.

B32 Loss of the histone demethylase UTX alters the gene expression profile and contributes to the malignant phenotype of multiple myeloma cells. Teresa Ezponda, Northwestern University, Chicago, IL, United States.

Other: Leukemia

B33 The zinc finger transcription factor, WT1, regulates growth control genes in leukemia cells. Sony Pandey, Kent State University, Kent, OH, United States.

B34 Single cell RNA sequencing identifies the NRASG12V-mediated AML self-renewal signature. Zohar Sachs, University of Minnesota, Minneapolis, MN, United States.


B36 JQ1 is an effective therapeutic in a mouse model of early thymic precursor T-ALL. Louise Mary Treanor, St. Jude Children's Research Hospital, Memphis, TN, United States.

B37 The real deal: Using cytochalasin B in sonodynamic therapy to preferentially damage leukemia cells. Matthew Trendowski, Syracuse University, Syracuse, NY, United States.


Other: Leukemia
B39 Combined targeting of Notch1 and proteasome as an effective strategy to suppress T-cell leukemia/lymphoma. Wenyu Shi, The University of Texas MD Anderson Cancer Center, Houston, TX, United States.


Other: Myelodysplastic Syndrome and Myeloproliferative Neoplasms

B41, PR06 Mutant U2AF1 alters hematopoiesis and pre-mRNA splicing in transgenic mice. Cara Lunn Shirai, Washington University in St. Louis, St. Louis, MO, United States.

B42 Modeling MDS in mice through precise molecular lesions in APC and mDia1. Julie Davis Turner, Van Andel Institute, Grand Rapids, MI, United States.


Other: Myeloma


B45 Multiple myeloma: A novel tailor-made therapeutic management. Sabna Rajeev Krishnan, University of Technology, Sydney, Sydney, Australia.

B46 VLA-4 targeted nanoparticles carrying a novel anti-Myc prodrug prolongs survival in a mouse model of multiple myeloma. Deepti Sood Gupta, Washington University in St Louis, St Louis, MO, United States.