Day 1 Poster Session

1 **NCI Technology Research Advocacy Partnership: Enhancing technology grant programs through advocate involvement**
Chuck Schmaderer, *NCI Research Advocate*

2 **Accessible high-throughput single-cell genome sequencing**
Andrew Adey, *Oregon Health & Science University*

3 **A Novel Fluorescence Imaging Platform to Predict Response to Combinatorial Tyrosine Kinase Inhibitors**
Summer Gibbs, *Oregon Health & Science University*

4 **Systematic characterization of cancer variants using single-cell functional genomics**
Thomas Norman & Scott Lowe, *Memorial Sloan Kettering Cancer Center*

5 **Engineered CD4 T cells for cell-based delivery of therapeutic proteins**
Parijat Bhatnagar, *SRI International*

6 **A micro-dissection platform for generating organoids to model the tumor immune microenvironment**
Sindy Tang, *Stanford University*

7 **Single cell modeling of cancer mutations**
Hanlee Ji, *Stanford University*

8 **A Novel Assay to Individualize Resensitization of Iodine-Refractory Thyroid Cancer**
Guillem Pratx, *Stanford University*

9 **Molecular and cellular imaging of bone biopsies using AI augmented deep UV Raman microscopy**
Vladislav Yakovlev, *Texas A&M University*
Mikhail Berezin, *Washington University in St. Louis*

10 **A High Throughput Human Tumor Modeling Technology for Cancer Drug Discovery**
Hossein Tavana, *University of Akron*
Gary Luker, *University of Michigan*

11 **CoreView and FIBI for rapid-onsite evaluation and molecular profiling of core needle breast biopsies**
Richard Levenson, *University of California, Davis*

12 **Microfluidic Precision Engineered Artificial Antigen Presenting Cells for Cancer Immunotherapy**
Abraham Lee & Anshu Agrawal, *University of California, Irvine*

13 **A highly sensitive linear amplification based DNA methylation profiling technique for clinical cancer research**
Brian Chiu & Wei Zhang, *University of Chicago*

14 **Transfer RNA sequencing and application to cancer research and clinics**
Tao Pan, Marc Bissonnette, & Benjamin Shogan, *University of Chicago*

15 **Optogenetic Control of Tumor Initiation and Tumor Progression in vivo**
Andrei Karginov, Jalees Rehman, & Trisha Bansal, *University of Illinois at Chicago*

16 **Development of stainless laser capture microdissection system**
Rohit Bhargava, *University of Illinois at Urbana-Champaign*

17 **High-throughput inverted reporter assay for characterization of silencers and enhancer blockers**
Alan Boyle, *University of Michigan*

18 **Advanced development of a blood brain barrier microfluidic platform**
Sofia Merajver & Christopher Oliver, *University of Michigan*

19 **A streamlined, high-throughput platform for validation of cancer antigen presentation and isolation of cancer antigen reactive T cells**
Ning Jenny Jiang, *University of Pennsylvania*
Amy Brock, *University of Texas at Austin*

20 **Tissue Photolithography**
Darryl Shibata, *University of Southern California*

21 **Efficient, cost-effective, and ultrasensitive sequencing of somatic mutations**
Stephen Salipante, *University of Washington*

22 **Detecting diverse nucleic acid biomarkers of cancer with solid-state nanopores**
Adam Hall, *Wake Forest University*

23 **Expanding the GoT toolkit to link single-cell genotypes with protein, transcriptomic, epigenomic, and spatial phenotypes**
Dan Landau, *Weill Cornell Medicine, New York Genome Center*

24 **Aliquot-level visual indicators of biospecimen exposure to thawed conditions**
Chad Borges, *Arizona State University*

25 **In situ assay imaging nuclear RNA exosome activity for cancer studies**
Vladimir Didenko, *Baylor College of Medicine*

26 **Mapping Cancer Metabolism by Mid-Infrared Photothermal (MIP) Microscopy**
Ji-Xin Cheng, *Boston University*

27 **Adapting ultra-sensitive sequencing to detect KRAS mutations in a blood draw**
Christopher Counter & James Abbruzzese, *Duke Medical Center*

28 **Novel cryopreservation method for stabilization of manufactured therapeutic cells**
Alptekin Aksan, *University of Minnesota*

Day 2 Poster Session

1 **NCI Technology Research Advocacy Partnership: Enhancing technology grant programs through advocate involvement**
Chuck Schmaderer, *NCI Research Advocate*

2 **A Virion-Display Oscillator Array and Detection Platform for Quantification of Transmembrane Protein Binding Kinetics**
Shaopeng Wang, *Arizona State University*

3 **Towards in-depth and label-free proteome profiling of hundreds of single cells per day**
Ryan Kelly, *Brigham Young University*

4 **Stitch-seq: A facile and high-throughput method to link pooled genetic perturbations to targeted gene expression**
Paul Blainey, *Broad Institute, Massachusetts Institute of Technology*

5 **A Practical Approach to Tumor-Specific Aptamers for B-Cell Hematologic Malignancies**
Qiao Lin, *Columbia University*

6 **MousePaint: A massively combinatorial approach for illuminating tumor heterogeneity in True Color**
Josh Snyder, *Duke University*

7 **High Quality Proteins with Multiple Post Translational Modifications**
Shuichi Hoshika, *Foundation for Applied Molecular Evolution*

8 **DNA Innovations in Cancer Research, Diagnostics, and Therapy**
Steven Benner, *Foundation for Applied Molecular Biology*

9 **Liquid biopsy-based toolkits for neoantigen and cognate TCR discovery for cancer immunotherapy**
Wei Wei, *Institute for Systems Biology*

10 **Secretion-responsive Hydrogels for Identification of Functional Single T Cells**
Rebecca Schulman & Claire Hur, *Johns Hopkins University*

11 **Multiplexed Digital Methylation Analysis for the Detection of Human Cancers**
Jeff Wang & Thomas Pisanic, *Johns Hopkins University*

12 **Fourier Imaging System for High-throughput Analyses of Cancer Organoids**
Hakho Lee, *Massachusetts General Hospital*

13 **Targeted Isolation and Identification of Sialylated Glycoproteins in Cancer Tissues, Cells, and Biofluids**
Richard Drake, *Medical University of South Carolina*

14 **A CRISPR/Cas13 approach for identifying individual transcript isoform function in cancer**
David Knowles, *New York Genome Center, Columbia University*

15 **Molecular Sub-typing Breast Cancer Patients Using Liquid Biopsy**
Steven Soper, *University of Kansas*

16 **Advances in storage of cancer biomarkers at room temperature utilizing BioCaRGOS: a sol-gel based technology**
Gautam Gupta, *University of Louisville*
Robert Keynton, *University of North Carolina*

17 **A synthetic toolkit for the recombinant production of tyrosine phosphorylated proteins and peptides**

Kristen Naegle, *University of Virginia*

18 **A cell-cycle induced genetic recorder for simultaneous recovery of cell divisions and lineage**
Ron Weiss, *Massachusetts Insititute of Technology*

19 **Single-Cell Protein Activity Profiling in Breast Cancer Cells and Tissues**
Raymond Moellering, *University of Chicago*

20 **Enhanced mass-spectrometry-based approaches for in-depth profiling of the cancer extracellular matrix**
Alexandra Naba & Yu Gao, *University of Illinois at Chicago*

21 **Novel Bisphosphate PET Probes for Myeloma Bone Disease**
Kai Chen & Charles McKenna, *University of Southern California*

22 **Integrative Functional Profiling of Tumor Derived Extracellular Vesicles**
Yong Zeng, *University of Florida*
Liang Xu, *University of Kansas*

23 **Phenotypic assay for drug discovery and personalized medicine based on real-time vibrational spectroscopy enhanced by plasmonic metasurfaces**
Gennady Shvets, *Cornell University*

24 **High-throughput, purification-free, and ultrasensitive transmembrane nanosensor arrays for digital counting of microRNA biomarkers of intact exosomes**
Rizal Hariadi & Hao Yan, *Arizona State University*

25 **Fractionation and Profiling of Heterogeneous Circulating Tumor Cells Using a Hyperuniform Structured Microchip**
Wei Li, *Texas Tech University*

26 **High-throughput Screening Platform for Cancer Drug Discovery**
Anne Plochowietz, *Palo Alto Research Center*
Laurie Parker, *University of Minnesota*

27 **SNAP-X: Development of a Mutagenesis Strategy and High Density Protein Array to Comprehensively Display Protein Variants**
Mary Ozers, *Proteovista LLC*

28 **Investigation of copper depletion in mitochondria via microscopy**
Peter Burke, *University of California, Irvine*
Jianghong Rao, *Stanford University*