

CONFERENCE PROGRAM

Monday, January 13

5:30 p.m.- 6:30 p.m.

OPENING PLENARY SESSION (WELCOME, KEYNOTE TALK)

Symphony Ballroom IV

Plasma DNA-based molecular diagnostics: Fragments, circles, and beyond

Dennis Lo, The Chinese University of Hong Kong, Shatin New Territories, China

6:30 p.m.-8:00 p.m.

OPENING RECEPTION

Symphony Ballroom II/III

Tuesday, January 14

7:00 a.m.-8:00 a.m.

Continental Breakfast

Symphony Ballroom II/III

8:00 a.m.-10:00 a.m.

PLENARY SESSION 1: EARLY DETECTION WITH ctDNA

Symphony Ballroom IV

Session Chair: Luis A. Diaz, Jr., Memorial Sloan Kettering Cancer Center, New York, NY

Multicancer detection of early-stage cancers with simultaneous tissue localization using a plasma cfDNA-based targeted methylation assay

Eric T. Fung, GRAIL, Inc., Menlo Park, CA

Early detection and characterization of cancer using noninvasive liquid biopsies

Victor E. Velculescu, Johns Hopkins Sidney Kimmel Comprehensive Cancer Center, Baltimore, MD

Sensitive tumor detection and classification using methylome analysis of plasma cfDNA

Daniel D. De Carvalho, Princess Margaret Cancer Centre, University Health Network; University of Toronto, Toronto, ON, Canada

ctDNA shedding dynamics dictate early lung cancer detection potential*

Johannes Reiter, Stanford University, Stanford, CA

Epigenetic biomarkers in cell-free DNA for early detection of high-grade serous ovarian carcinoma*

Ben Yi Tew, University of Southern California, Los Angeles, CA

**Short talk from proffered abstract*

CONFERENCE PROGRAM

10:00 a.m.-10:30 a.m.

BREAK

Symphony Ballroom Foyer

10:30 a.m.-12:30 p.m.

PLENARY SESSION 2: MRD AND EARLY-STAGE DISEASE

Symphony Ballroom IV

Session Chair: Nicholas C. Turner, Royal Marsden Hospital Institute of Cancer Research, London, United Kingdom

ctDNA and MRD in colorectal cancer: Time to reinvent adjuvant clinical trials

Jeanne Tie, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia

Molecular relapse and residual disease in breast cancer

Nicholas C. Turner

Liquid biopsies for personalized monitoring and detection of cancer

Maximilian Diehn, Stanford University, Stanford, CA

**Use of liquid biopsy to facilitate drug development in early-stage disease—
FDA perspective**

Julia A. Beaver, FDA, Silver Spring, MD

12:30 p.m.-12:45 p.m.

SPECIAL PRESENTATION

Symphony Ballroom IV

The promise of liquid biopsy in the early detection of cancer: Hope or hype?

Sudhir Srivastava, National Cancer Institute, Bethesda, MD

12:45 p.m.-2:30 p.m.

LUNCH ON OWN

2:30 p.m.-4:15 p.m.

PLENARY SESSION 3: HEMATOLOGIC MALIGNANCIES

Symphony Ballroom IV

Session Chair: Irene M. Ghobrial, Dana-Farber Cancer Institute, Boston, MA

Liquid biopsies as biomarkers of disease progression in multiple myeloma

Irene M. Ghobrial

Clinical applications of liquid biopsy in multiple myeloma

Suzanne Trudel, University of Toronto University Health Network, Toronto, ON, Canada

Genome-wide 5-hydroxymethylcytosine profiles in circulating cell-free DNA and survival in patients with multiple myeloma*

Brian Chiu, University of Chicago, Chicago, IL

Clonal landscapes of hematologic malignancies redefined by ultrasensitive duplex sequencing*

Jake Higgins, TwinStrand Biosciences, Seattle, WA

**Short talk from proffered abstract*

Radiation-assisted Amplification Sequencing (RAMP-Seq): Evaluating the use of stereotactic body radiation therapy (SBRT) for enriching circulating tumor DNA in liquid biopsies*

Christopher Boniface, Oregon Health & Science University, Portland, OR

4:15 p.m.-6:45 p.m.

POSTER SESSION A / LIGHT REFRESHMENTS

Symphony Ballroom II/III

Wednesday, January 15

7:00 a.m.-8:00 a.m.

CONTINENTAL BREAKFAST

Symphony Ballroom II/III

8:00 a.m.-10:00 a.m.

PLENARY SESSION 4: GENOTYPING, MONITORING OF ADVANCED DISEASE, AND MOLECULAR RESISTANCE (PART I)

Symphony Ballroom IV

Session Chair: Maximilian Diehn, Stanford University, Stanford, CA

Response in plasma cfDNA as an early marker of treatment effect in advanced cancer

Geoffrey R. Oxnard, Dana-Farber Cancer Institute, Boston, MA

Tracking and targeting colorectal cancer evolution

Alberto Bardelli, University of Turin School of Medicine, Candiolo To, Italy

Liquid biopsies for tracking molecular resistance in cancer

Sarah-Jane Dawson, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia

Clonal evolution over narrow time frames via circulating tumor DNA in metastatic breast cancer*

Daniel Stover, Ohio State University Comprehensive Cancer Center, Columbus, OH

MSI detection in plasma cfDNA: MSI as a marker of disease burden*

Preethi Srinivasan, Memorial Sloan Kettering Cancer Center, New York, NY

10:00 a.m.-10:30 a.m.

BREAK

Symphony Ballroom Foyer

**Short talk from proffered abstract*

CONFERENCE PROGRAM

10:30 a.m.-12:30 p.m.

PLENARY SESSION 5: GENOTYPING, MONITORING OF ADVANCED DISEASE, AND MOLECULAR RESISTANCE (PART II)

Symphony Ballroom IV

Session Chair: Nitzan Rosenfeld, Cancer Research UK Cambridge Research Institute, Cambridge, United Kingdom

Liquid biopsies: Implications for therapeutic response/resistance and prognosis

Razelle Kurzrock, UCSD Moores Cancer Center, La Jolla, CA

Enhancing detection of ctDNA in patients with early-stage or residual disease

Nitzan Rosenfeld

Comprehensive genomic profiling of cell-free DNA enables treatment response monitoring

Viktor Adalsteinsson, Broad Institute, Cambridge, MA

Validation and clinical implementation of MSK-ACCESS, an ultra-deep sequencing assay for noninvasive somatic mutation profiling*

A. Rose Brannon, Memorial Sloan Kettering Cancer Center, New York, NY

Frequency and etiology of ctDNA-positive metastatic prostate cancer with BRCA2, ATM, or CDK12 mutations*

Evan Warner, Vancouver Prostate Centre, Vancouver, BC, Canada

12:30 p.m.-3:00 p.m.

POSTER SESSION B / LUNCH

Symphony Ballroom II/III

3:00 p.m.-5:00 p.m.

PLENARY SESSION 6: CIRCULATING TUMOR CELLS

Symphony Ballroom IV

Session Chair: Caroline Dive, Cancer Research UK Manchester Institute, Manchester, United Kingdom

Molecular signatures of circulating tumor cells

Daniel A. Haber, Massachusetts General Hospital, Charlestown, MA

Multiple uses of circulating tumor cells in lung cancer?

Caroline Dive

Circulating tumor cells: Biology and clinical applications as liquid biopsy

Klaus Pantel, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

Analytical validation and preliminary clinical utility of PD-L1 and HLA I expression profiling of circulating tumor cells using automated exclusion-based sample preparation technology*

Jennifer Schehr, University of Wisconsin, Madison, WI

Multimodal analysis of circulating tumor cell RNA, circulating cell-free DNA and genomic DNA from a single blood sample collected into a PAXgene Blood ccfDNA Tube*

Anna Babayan, PreAnalytiX, Hombrechtikon, Switzerland

**Short talk from proffered abstract*

Thursday, January 16

7:00 a.m.-8:00 a.m.

CONTINENTAL BREAKFAST

Symphony Ballroom II/III

8:00 a.m.-10:00 a.m.

PLENARY SESSION 7: EMERGING APPROACHES

Symphony Ballroom IV

Session Chair: Muneesh Tewari, University of Michigan, Ann Arbor, MI

Exploiting the biology of exosomes for diagnosis and treatment of cancer

Raghu Kalluri, The University of Texas MD Anderson Cancer Center, Houston, TX

Tumor-educated platelets for the detection of cancer

Thomas Würdinger, VU University Medical Center, Amsterdam, The Netherlands

Phospho-RNA-seq: A liquid biopsy approach for cell-free mRNA/lncRNA profiling

Muneesh Tewari

Detection of EV-based signatures in prostate cancer using microflow cytometry and machine learning*

John Lewis, University of Alberta, Edmonton, AB, Canada

Comprehensive detection of ctDNA in localized head and neck cancer by genome- and methylome-based analysis*

Justin Burgener, Princess Margaret Cancer Centre, Toronto, ON, Canada

10:00 a.m.-10:30 a.m.

BREAK

Symphony Ballroom Foyer

10:30 a.m.-12:30 p.m.

PLENARY SESSION 8: ALTERNATIVE "FLUIDS"

Symphony Ballroom IV

Session Chair: Nishant Agrawal, University of Chicago Pritzker School of Medicine, Chicago, IL

Title to be announced

Pedram Razavi, Memorial Sloan Kettering Cancer Center, New York, NY

Detection of somatic mutations and HPV in saliva of patients with head and neck squamous cell carcinoma

Nishant Agrawal

Liquid biopsy in precision pathology: Plasma and beyond!

George J. Netto, University of Alabama at Birmingham, Birmingham, AL

Sub-nucleosomal fragmentation in urine cell-free DNA*

Havell Markus, Translational Genomics Research Institute, Phoenix, AZ

**Short talk from proffered abstract*

CONFERENCE PROGRAM

Charting extracellular transcriptomes in The Human Biofluid RNA Atlas*

Eva Hulstaert, Ghent University, Ghent, Belgium

12:30 p.m.-12:45 p.m.

CLOSING REMARKS

Symphony Ballroom IV

Luis A. Diaz, Jr., Memorial Sloan Kettering Cancer Center, New York, NY

Maximilian Diehn, Stanford University, Stanford, CA

Irene M. Ghobrial, Dana-Farber Cancer Institute, Boston, MA

Nicholas C. Turner, Royal Marsden Hospital Institute of Cancer Research, London, United Kingdom

**Short talk from proffered abstract*