### Monday, January 8

6:00 p.m.-8:00 p.m. WELCOME REMARKS AND OPENING KEYNOTE SESSION

Legends 1-4

Fred Hirsch, CEO, IASLC

6:10 p.m.-6:40 p.m. Checkpoint blockade: "The good, bad, and the ugly"

Matthew D. Hellmann, Memorial Sloan Kettering Cancer Center, New York, NY

6:40 p.m.–7:10 p.m. The role of aneuploidy during tumorigenesis

Teresa Davoli, Harvard Medical School, Boston, MA

7:10 p.m.-7:40 p.m. Functional lung cancer genomics through in vivo genome editing

Monte M. Winslow, Stanford University School of Medicine, Stanford, CA

7:40 p.m.–8:00 p.m. **Keynote discussion** 

8:00 p.m.-10:00 p.m. OPENING RECEPTION

The Edge

#### Tuesday, January 9

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

The Edge

8:00 a.m.-10:00 a.m. PLENARY SESSION 1: EARLY STEPS IN LUNG ONCOGENESIS

Legends 1-4

8:00 a.m.-8:25 a.m. Elucidating lung stem cells and the initiation of lung cancer at single-cell resolution

Mark A. Krasnow, Stanford University, Stanford, CA

8:25 a.m.-8:50 a.m. Early steps in lung oncogenesis

Samuel Janes, University College London, London, United Kingdom

8:50 a.m.-9:15 a.m. Molecular mechanisms of lung cancer development: Between metabolic

reprogramming and genomic instability in the field of cancerization

Pierre P. Massion, Vanderbilt University Medical Center, Nashville, TN

9:15 a.m.-9:40 a.m. Influence of cancer initiation on tumor progression in SCLC

Julien Sage, Stanford University School of Medicine, Stanford, CA

9:40 a.m.-9:55 a.m. Modeling Rb loss and pathway reactivation in lung adenocarcinoma\*

David M. Feldser, University of Pennsylvania, Philadelphia, PA

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

Abbey Road

10:30 a.m.-12:25 p.m. PLENARY SESSION 2: EARLY DETECTION

Legends 1-4

10:30 a.m.-10:55 a.m. Individualized risk-based lung cancer screening: The way forward

Christine D. Berg, National Cancer Institute, Bethesda, MD

10:55 a.m.–11:20 a.m. Inflammation and immunity in pulmonary premalignancy

Steven M. Dubinett, David Geffen School of Medicine at UCLA, Los Angeles, CA

<sup>\*</sup>Short talk from proffered abstract

11:20 a.m.-11:45 a.m. Title to be announced

Avrum E. Spira, Boston University School of Medicine, Boston, MA

11:45 a.m.-12:10 p.m. Gene networks, airway smoke injury, and cancer risk

Bruce A.J. Ponder, Cancer Research UK Cambridge Research Institute,

Cambridge, United Kingdom

12:10 p.m.-12:25 p.m. Diagnostic and prognostic utility of urinary creatine riboside for early-stage non-

small cell lung cancer\*

Takahiro Oike, National Cancer Institute, Besthesda, MD

12:25 p.m. – 12:35 p.m. POSTER SESSION A HIGHLIGHTS

Legends 1-4

(not CME accredited)

(A01) Stem cell signals in the initiation and progression of non-small cell lung cancer

Alison G. Barber, University of California San Diego School of Medicine, San Diego, CA

(A02) Oncogenic drivers of lung cancer induce production of CCL5 and recruitment of

regulatory T cells

Elizabeth Franks, British Columbia Cancer Research Centre, Vancouver, BC, Canada

(A03) Reversion of EMT sensitizes KRAS mutant cancers to MEK inhibition

David H. Peng, The University of Texas MD Anderson Cancer Center, Houston, TX

(AO4) Altered expression of IncRNAs overlapping pseudogene loci as an alternative

mechanism of cancer gene regulation

Greg L. Stewart, British Columbia Cancer Research Centre, Vancouver, BC, Canada

12:40 p.m.-2:00 p.m. POSTER SESSION A AND LUNCH

Legends 5-6 and Encore

2:30 p.m.-3:45 p.m. PLENARY SESSION 3: LIQUID BIOPSIES

Legends 1-4

2:30 p.m.-2:55 p.m. Early detection of molecular residual disease in localized lung cancer via circulating

tumor DNA profiling

Maximilian Diehn, Stanford University, Stanford, CA

2:55 p.m.-3:20 p.m. Circulating tumor DNA in early-stage NSCLC: A lung TRACERx study

Christopher Abbosh, University College London Cancer Institute,

London, United Kingdom

3:20 p.m.-3:45 p.m. ctDNA assessment of resistance and heterogeneity in EGFR mutant lung cancers

Zofia Piotrowska, Partners Cancer Care/MGH Cancer Center, Boston, MA

3:45 p.m.-4:00 p.m. BREAK

Abbey Road

4:00 p.m.-6:15 p.m. PLENARY SESSION 4: HETEROGENEITY AND EVOLUTION

Legends 1-4

4:00 p.m.-4:25 p.m. Liquid biopsies and lung cancer evolution

Trever G. Bivona, University of California San Francisco, San Francisco, CA

4:25 p.m.-4:50 p.m. Tracking Lung Cancer Evolution through therapy (TRACERx): Immune evasion,

progression, and adaptation

Charles Swanton, The Francis Crick Institute and University College London Cancer

Institute, London, United Kingdom

<sup>\*</sup>Short talk from proffered abstract

4:50 p.m.-5:15 p.m.

Evolution of acquired resistance in EGFR-mutant NSCLC
Aaron N. Hata, Massachusetts General Hospital, Charlestown, MA

5:15 p.m.-5:40 p.m.

Cell-of-origin footprints in lung cancer genomes and transcriptomes
Marcin Imielinski, Weill Cornell Medical College, New York, NY

5:40 p.m.-5:55 p.m.

Dissecting the playbook of cancer: Genomic analysis of 100,000 human tumors
reveals elaborate patterns of activation of the RTK-RAS-MAPK pathway\*
Gerard Manning, Genentech, South San Francisco, CA

5:55 p.m.-6:10 p.m.

Decoding tumor microenvironment to enhance NSCLC targeted therapy\*
Haichuan Hu, MGH Cancer Center/Harvard Medical School, Charlestown, MA

#### Wednesday, January 10

7:00 a.m. – 8:00 a.m. CONTINENTAL BREAKFAST	
---	--

The Edge

8:00 a.m10:00 a.m.	PLENARY SESSION 5: IMMUNOTHERAPY: BIOMARKERS AND CHECKPOINT BLOCKADE
0.UU d.III.=IU.UU d.III.	PLENAKT SESSION S. IMMUNUT HEKAPT. DIUMAKNEKS AND UHEUNPUINT DUULNADE

Legends 1-4

8:00 a.m.-8:25 a.m. Immunotherapy: Biomarkers and checkpoint blockade in NSCLC

David P. Carbone, The Ohio State University Comprehensive Cancer Center,

Columbus, OH

8:25 a.m.-8:50 a.m. Mechanisms of acquired resistance to immune checkpoint inhibitors in lung cancer

Katerina A. Politi, Yale University Cancer Center, New Haven, CT

8:50 a.m.-9:15 a.m. Immunotherapy for thoracic malignancies beyond NSCLC

Solange Peters, Centre Cordonné d'Oncologie-CHUV, Lausanne, Switzerland

9:15 a.m. -9:30 a.m. Safety and activity of the IL-15/sIL-15R $\alpha$  complex ALT-803 in combination with the

anti-PD1 mAb nivolumab in metastatic non-small cell lung cancer\*
John Wrangle, Medical University of South Carolina, Charleston, SC

9:30 a.m.-9:45 a.m. Investigating ectopic lymphoid aggregates in a genetically engineered mouse

model of lung adenocarcinoma\*

Kelli Connolly, Yale University, New Haven, CT

9:45 a.m.-10:00 a.m. Role of the microbiota in inflammation and lung cancer\*

Ana I. Robles, National Cancer Institute, Besthesda, MD

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

Abbey Road

10:30 a.m. –11:20 a.m. PLENARY SESSION 6: VACCINES, CELLULAR THERAPY, NEOANTIGEN TARGETING

Legends 1-4

10:30 a.m.-10:55 a.m. Allele-specific HLA loss and immune escape in lung cancer evolution

Rachel Rosenthal, University College London, London, United Kingdom

10:55 a.m.-11:20 a.m. Are tumors predictable? Inherited immune variation constrains tumor evolution

Hannah K. Carter, University of California San Diego, San Diego, CA

11:30 a.m.-12:00 p.m. SPECIAL LECTURE

Legends 1-4

Developing precision medicine-based new lung cancer therapeutics

John D. Minna, UT Southwestern Medical Center, Dallas, TX

<sup>\*</sup>Short talk from proffered abstract

12:00 p.m1:30 p.m.	LUNCH ON OWN
1:30 p.m3:40 p.m.	PLENARY SESSION 7: SMALL CELL LUNG CANCER Legends 1-4
1:30 p.m1:55 p.m.	Mechanisms of chemoresistance in SCLC Charles M. Rudin, Memorial Sloan Kettering Cancer Center, New York, NY
1:55 p.m2:20 p.m.	MYC drives molecular and therapeutically distinct subtype of SCLC Trudy G. Oliver, University of Utah Huntsman Cancer Institute, Salt Lake City, UT
2:20 p.m2:45 p.m.	The genomic landscape of SCLC and other neuroendocrine lung tumors Julie George, University of Cologne, Cologne, Germany
2:45 p.m3:10 p.m.	Circulating Tumor Cells: A liquid biopsy for SCLC with multiple applications Caroline Dive, Cancer Research UK Manchester Institute, Manchester, United Kingdom
3:10 p.m3:25 p.m.	Functional characterization and evolutionary reconstruction of small cell lung cancer transformation of EGFR-mutant lung adenocarcinomas*  June-Koo Lee, Harvard Medical School, Boston, MA
3:25 p.m3:40 p.m.	Alterations in cell junctions and neuroendocrine differentiation are key early steps in Crebbp/Ep300 mutation-driven SCLC development* Kwon-Sik Park, University of Virginia, Charlottesville, VA
3:40 p.m4:00 p.m.	BREAK Abbey Road
4:00 p.m5:30 p.m.	PLENARY SESSION 8: IMAGING, RADIATION ONCOLOGY, RADIOMICS Legends 1-4
4:00 p.m4:25 p.m.	ImmunoPET imaging of DLL3 in small cell lung cancer John T. Poirier, Memorial Sloan Kettering Cancer Center, New York, NY
4:25 p.m4:50 p.m.	Radiation therapy in lung cancer: Recent trends and future directions  Daniel R. Gomez, The University of Texas MD Anderson Cancer Center, Houston, TX
4:50 p.m5:15 p.m.	Multiscale modeling of lung cancer Olivier Gevaert, Stanford University, Stanford, CA
5:15 p.m5:30 p.m	Multimodality imaging of human lung squamous cell carcinoma reveals unique metabolic dependencies that are effectively targeted with metabolic-based therapies*  David B. Shackelford, David Geffen School of Medicine at UCLA, Los Angeles, CA
5:30 p.m5:40 p.m.	POSTER SESSION B HIGHLIGHTS Legends 1-4 (not CME accredited)
(B01)	<b>BLU-667: A highly selective RET inhibitor to target RET-driven NSCLC</b> Erica K. Evans, Blueprint Medicines, Cambridge, MA
(B02)	Heterogeneity of epithelial-to-mesenchymal transition and resistance mutation in ALK inhibitor-resistant lung cancer and its circumvention Koji Fukuda, Cancer Research Institute, Kanazawa University, Kanazawa, Japan
(B03)	Suppression of lung adenocarcinoma growth and metastasis by stromal Hedgehog pathway activation  James Kim, UT Southwestern Medical Center, Dallas, TX

POSTER SESSION B AND RECEPTION

Legends 5-6 and Encore

5:40 p.m.-7:00 p.m.

<sup>\*</sup>Short talk from proffered abstract

### Thursday, January 11

The Edge

8:00 a.m.-10:00 a.m. PLENARY SESSION 9: TUMOR MICROENVIRONMENT

Legends 1-4

8:00 a.m.-8:25 a.m. Comprehensive enumeration of immune cells in the tumor microenvironment using

multiplexed ion beam imaging

Michael Angelo, Stanford University School of Medicine, Stanford, CA

8:25 a.m.-8:50 a.m. Targeting cellular heterogeneity in lung adenocarcinoma

Tuomas Tammela, Memorial Sloan Kettering Cancer Center, New York, NY

8:50 a.m.-9:15 a.m. Immune contexture evolution during lung cancer carcinogenesis and its potential

clinical implications

Jianjun Zhang, The University of Texas MD Anderson Cancer Center, Houston, TX

9:15 a.m.-9:40 a.m. Regulatory T cells, polymorphisms, and response to checkpoint blockade: From

mechanisms to potential biomarkers

Sergio Quezada, University College London Cancer Institute, London, United Kingdom

9:40 a.m.-9:55 a.m. Hyperspectral imaging tools capture the spatial organization of cell subsets within

the tumor microenvironment\*

Katey S.S. Enfield, British Columbia Cancer Research Centre, Vancouver, BC, Canada

10:00 a.m.-10:15 a.m. BREAK

Abbey Road

10:15 a.m.-12:00 p.m. PLENARY SESSION 10: TARGETED THERAPIES AND ONCOGENIC SIGNALING

Legends 1-4

10:15 a.m.-10:40 a.m. **Title to be announced** 

Neal Rosen, Memorial Sloan Kettering Cancer Center, New York, NY

10:40 a.m.-10:55 a.m. A combined protein-protein interaction and genetic interaction map defines new

and critical Kras effectors in non-small cell lung cancer\*

Peter K. Jackson, Stanford University School of Medicine, Stanford, CA

10:55 a.m.-11:20 a.m. Progress and unanswered questions in EGFR mutation-positive lung cancer

Lecia Sequist, Massachusetts General Hospital, Boston, MA

11:20 a.m.-11:35 a.m. MET copy number gain is associated with gefitinib resistance in leptomeningeal

carcinomatosis of EGFR-mutant lung cancer\*

Shigeki Nanjo, University of California San Francisco, San Francisco, CA

11:35 a.m.–12:00 p.m. The art in the science of ALK-positive lung cancer management

Tony S.K. Mok, Chinese University of Hong Kong, Shatin, Hong Kong

<sup>\*</sup>Short talk from proffered abstract