

Molecular Origins of Lung Cancer: Prospects for Personalized Prevention and Therapy

Conference Program

Monday, January 11

6:00 p.m.-7:30 p.m. Opening Session *Commodore ABCD*

6:00 Welcome and Opening Remarks

Margaret Foti, American Association for Cancer Research
Philadelphia, PA

David P. Carbone, Vanderbilt-Ingram Cancer Center,
Nashville, TN

Roy S. Herbst, UT M. D. Anderson Cancer Center,
Houston, TX

6:30 Keynote Address

Studying Tumor Evolution in Mouse Models of Lung Cancer

Tyler Jacks, Massachusetts Institute of Technology,
Cambridge, MA

7:30 p.m.-8:30 p.m. Welcome Reception *Bay Terrace*

Tuesday, January 12

7:00 a.m.-8:00 a.m. Continental Breakfast *Bay Terrace*

8:00 a.m.-10:00 a.m. Plenary Session 1 *Commodore ABCD*

Tyrosine Kinase Signaling and Targeted Therapy

*Co-Chairpersons: Matthew L. Meyerson, Dana-Farber
Cancer Institute, Boston, MA, and William Pao, Vanderbilt
University, Nashville, TN*

8:00 *Introduction*
Matthew L. Meyerson

8:15 *Discovery and clinical application of a novel oncogene, EML4-ALK, in lung
cancer*
Hiroyuki Mano, Jichi Medical University, Tochigi, Japan

- 8:45 *Overcoming acquired resistance to EGFR inhibitors*
Jeffrey A. Engelman, Massachusetts General Hospital, Charlestown, MA
- 9:15 *Targeting the insulin and insulin-like growth factor receptors: Efficacy and biology*
Michael Pollak, McGill University, Montreal, Quebec
- 9:45 **Activation of c-Met by EGFR modulates invasive phenotypes in NSCLC*
Austin M. Dulak, University of Pittsburgh, Pittsburgh, PA

10:00 a.m.-10:30 a.m. Break *Commodore Foyer*

10:30 a.m.-12:30 p.m. Plenary Session 2 *Commodore ABCD*
Early Detection for Premalignant Lesions and Field Cancerization
Co-Chairpersons: *Denise R. Aberle, UCLA David Geffen School of Medicine, Los Angeles, CA, and Elisabeth M. P. Brambilla, Hôpital A. Michallon, Grenoble, France*

10:30 *NLST update and biospecimen opportunity*
Denise R. Aberle

11:00 *Airway gene expression as a biomarker for lung cancer*
Avrum E. Spira, Boston University Medical Center, Boston, MA

11:30 *Histone modification as an early mark of epigenetic change*
Elisabeth M.P. Brambilla, Hôpital A. Michallon, Grenoble, France

12:00 **Sniffing NSCLC and SCLC using nanoparticle based artificial olfactory system NanoNose*
Nir Peled, University of Colorado Cancer Center, Aurora, CO

12:15 **Blood-based biomarker profiles for detecting lung cancer*
Gina Lee, David Geffen School of Medicine at UCLA, Los Angeles, CA

12:30 p.m.-2:30 p.m. Poster Session A and Lunch *Commodore E*

2:30 p.m.-4:30 p.m. Concurrent Session 1 *Constellation A*
Detection and Prevention: From Mouse to Man
Co-Chairpersons: *Steven M. Dubinett, UCLA David Geffen School of Medicine, Los Angeles, CA, and Jonathan M. Kurie, UT M. D. Anderson Cancer Center, Houston, TX*

- 2:30 *Personalized, targeted chemoprevention for lung cancer: Is it possible?*
Steven M. Dubinett
- 3:00 *Moving prognostic epigenetic markers for lung cancer into the clinic*
Malcolm V. Brock, Johns Hopkins University, Baltimore, MD
- 3:30 *Preclinical lung cancer chemoprevention models*
Robert L. Keith, University of Colorado Health Sciences Center, Denver, CO
- 4:00 *Novel targets in metastasis prevention*
Jonathan M. Kurie

2:30 p.m.-4:30 p.m. Concurrent Session 2 *Constellation B*
Other Thoracic Cancers (Mesothelioma, Thymic, Neuroendocrine)
Co-Chairpersons: Pierre P. Massion, Vanderbilt-Ingram Cancer Center, Nashville, TN, and Valerie W. Rusch, Memorial Sloan-Kettering Cancer Center, New York, NY

- 2:30 *Copy number alterations in the pathogenesis of small cell lung cancer*
Pierre P. Massion
- 3:00 *Personalizing novel mesothelioma treatments for conventional and novel therapies*
Steven M. Albelda, University of Pennsylvania, Philadelphia, PA
- 3:30 *Current insights into thymoma and thymic carcinoma*
Valerie W. Rusch
- 4:00 **Mouse models to study roles of TSG and signaling pathway in SCLC development*
Kwon-Sik Park, Stanford University, Stanford, CA.
- 4:15 **Matching phenotype-genotype interactions identifies mTOR as a druggable molecule in malignant pleural mesothelioma targeted therapeutic approach*
Giulia M. Stella, University of Pavia and Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

2:30 p.m.-4:30 p.m. **Concurrent Session 3** *Commodore ABCD*
JAK/STAT Pathways as Therapeutic Targets
Co-Chairpersons: Eric B. Haura, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL, and Tetsuya Mitsudomi, Aichi Cancer Center Research Institute, Nagoya, Japan

2:30 *Targeting JAK/STAT signaling for cancer therapy*
Richard Jove, City of Hope, Duarte, CA

3:00 *Targeting EGFR, Src, and Stat3 pathway for cancer therapy*
James Turkson, University of Central Florida, Orlando, FL

3:30 *Targeting STATs for the molecular therapy of lung cancer: Translation from the lab to the clinic*
David A. Frank, Dana-Farber Cancer Institute, Boston, MA

4:00 *JAK activation as a mechanism for resistance to c-Src inhibition in NSCLC*
Faye M. Johnson, UT M. D. Anderson Cancer Center, Houston, TX

4:30 p.m.-6:00 p.m. **Advocacy, Regulatory, and Funding Issues** *Commodore ABCD*
Co-Chairpersons: Kim Norris, Lung Cancer Foundation of America, Palos Verdes Estates, CA, and Debra A. Violette, Dana-Farber Lung SPORE, Lung Cancer Alliance, Augusta, ME

4:30 *Title TBD*
Lori Monroe, Lung Cancer Foundation of America, Bowling Green, KY

5:00 Panel Discussion

Wednesday, January 13

7:00 a.m.-8:00 a.m. **Continental Breakfast** *Bay Terrace*

8:00 a.m.-10:00 a.m. **Plenary Session 3** *Commodore ABCD*
Cancer Stem Cells
Co-Chairpersons: Stephen B. Baylin, Sydney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, and John D. Minna, UT Southwestern Medical Center, Dallas, TX

- 8:00 *Lung cancer stem cells: Identification and translation to the clinic*
John D. Minna
- 8:30 *Epigenetic therapy, cancer self-renewing cells, and lung cancer*
Stephen B. Baylin
- 9:00 *Lung cancer stem cells and the cytokine network*
Vera Levina, University of Pittsburgh Cancer Institute, Pittsburgh, PA
- 9:30 **Lung cancer cells asymmetrically divide their template DNA strands during cell division*
Brid M. Ryan, National Cancer Institute, Bethesda, MD
- 9:45 **Targeting Rac1 GTPase benefits both human lung adenocarcinoma stem cell and non-stem cell therapies*
Shailaja Akunuru, Children's Hospital Research Foundation, University of Cincinnati, Cincinnati, OH

10:00 a.m.-10:30 a.m. Break *Commodore Foyer*

10:30 a.m.-12:30 p.m. Plenary Session 4 *Commodore ABCD*
Genome-wide Approaches to Risk
Co-Chairpersons: Bruce A. J. Ponder, CRUK, Cambridge Research Institute, Cambridge, UK, and Margaret R. Spitz, UT M. D. Anderson Cancer Center, Houston, TX

10:30 *Genome-wide approaches to risk: Lessons from breast and prostate*
Bruce A. J. Ponder

11:00 *Convergence of genetic findings for nicotine dependence and lung cancer*
Laura J. Bierut, Washington University School of Medicine, St. Louis, MO

11:30 *COPD Gene: Risk factors for COPD and lung cancer*
James D. Crapo, University of Colorado Health Sciences Center, Denver, CO

12:00 *Identifying causal factors for lung cancer by genome wide studies*
Christopher I. Amos, UT M. D. Anderson Cancer Center, Houston, TX

12:30 p.m.-2:30 p.m. Lunch (on own)

2:30 p.m.-4:30 p.m. **Concurrent Session 4** *Constellation A*
Lung Cancer Profiling with microRNAs
Co-Chairpersons: *Glen J. Weiss, Translational Genomics Research Institute, Phoenix, AZ, and Ignacio I. Wistuba, UT M. D. Anderson Cancer Center, Houston, TX*

- 2:30 *Application of miRNAs in the treatment of lung cancer*
Glen J. Weiss
- 3:00 *MicroRNA alterations in the pathogenesis of lung cancers*
Takashi Takahashi, Nagoya University Graduate School of Medicine, Nagoya, Japan
- 3:30 *MicroRNA binding site SNPs and lung cancer risk*
Joanne B. Weidhaas, Yale University School of Medicine, New Haven, CT
- 4:00 **The role of microRNA 125a-3P in the pathogenesis of lung cancer*
Saswati Hazra, David Geffen School of Medicine at UCLA, Los Angeles, CA
- 4:15 **MicroRNA affinity assay*
Simon Spivack, Albert Einstein College of Medicine, Bronx, NY

2:30 p.m.-4:30 p.m. **Concurrent Session 5** *Constellation B*
Mouse Models of Lung Cancer
Chairperson: *Kwok-kin Wong, Dana-Farber Cancer Institute, Boston, MA*

- 2:30 *The use of genetically engineered mouse lung cancer models for preclinical testing of novel therapeutics*
Kwok-kin Wong
- 3:00 *The multiple roles of Kras in mouse epithelial cancer development*
Minh D. To, UCSF Comprehensive Cancer Center, San Francisco, CA
- 3:30 *Preclinical evaluation of genetically engineered mouse models of NSCLC and SCLC*
Leisa Johnson, Genentech, Inc., South San Francisco, CA
- 4:00 **BRAF deletion and pharmacologic inhibition enhance KRAS-driven tumorigenesis*
Christopher L. Murriel, Genentech, Inc., South San Francisco, CA
- 4:15 **Novel lung cancer model mediated by lentiviral gene delivery*
Yifeng Xia, Salk Institute for Biological Studies, La Jolla, CA

2:30 p.m.-4:30 p.m. **Concurrent Session 6** *Commodore ABCD*
Other Biomarkers
Co-Chairpersons: David P. Carbone, Vanderbilt-Ingram Cancer Center, Nashville, TN, and Fred R. Hirsch, University of Colorado Cancer Center, Aurora, CO

2:30 *Proteomics-based biomarker development in NSCLC*
David P. Carbone

3:00 *Gene copy number for EGFR and IGF-1R: Clinical implications*
Fred R. Hirsch

3:30 *Prognostic and predictive biomarkers for adjuvant chemotherapy*
Ming Sound Tsao, Princess Margaret Hospital, Toronto, Canada

4:00 **High-throughput protein biomarker discovery and translation into clinical diagnostics for oncology using the SomaLogic SOMAmer-based assay*
Rachel Ostroff, SomaLogic, Inc., Boulder, CO

4:15 **Gene expression changes in the bronchial airway epithelium of smokers with lung cancer may reflect common pathways of tobacco-related carcinogenesis*
Adam C. Gower, Boston University, Boston, MA

4:30 p.m.-6:30 p.m. **Poster Session B and Reception** *Commodore E*

Thursday, January 14

7:00 a.m.-8:00 a.m. **Continental Breakfast** *Bay Terrace*

8:00 a.m.-10:00 a.m. **Plenary Session 5** *Commodore ABCD*
Angiogenesis and the Tumor Microenvironment
Co-Chairpersons: Roy S. Herbst, UT M. D. Anderson Cancer Center, Houston, TX, and Joan H. Schiller, UT Southwestern Medical Center, Dallas, TX

8:00 *Antiangiogenic agents in the clinic: Are we there yet?*
Joan H. Schiller

8:30 *Molecular signature for bevacizumab in E4599*
Heinz-Josef Lenz, USC/Norris Comprehensive Cancer Center, Los Angeles, CA

- 9:00 *Contrasting effects of different antiangiogenic drugs (TKIs and antibodies) on early- vs. late-stage metastatic disease*
Robert S. Kerbel, Sunnybrook Health Sciences Centre, Toronto, Canada
- 9:30 **Phase II studies of ASA404 (vadimezan, DMXAA) plus carboplatin and paclitaxel in advanced squamous and nonsquamous non-small cell lung cancer: Blood and lymphatic adverse events*
M. J. McKeage, The University of Auckland, Auckland, New Zealand
- 9:45 **Identification of tumor cell-derived factors associated with resistance to anti-VEGF therapy in non-small cell lung cancer*
Laura A. Sullivan, University of Texas Southwestern Medical Center, Dallas, TX

10:00 a.m.-10:30 a.m. Break *Commodore Foyer*

10:30 a.m.-12:30 p.m. Plenary Session 6 *Commodore ABCD*
Drug Design and New Targets
Co-Chairpersons: Nagahiro Saijo, Kinki University School of Medicine, Osaka-Sayama, Japan, and David R. Gandara, UC Davis Cancer Center, Sacramento, CA

- 10:30 *Personalized therapeutic approaches for advanced NSCLC: The MDACC BATTLE program*
Roy S. Herbst, UT M. D. Anderson Cancer Center, Houston, TX
- 11:00 *Personalizing chemotherapy for advanced NSCLC*
David R. Gandara
- 11:30 *New targets for chemoprevention and therapy for lung cancer*
Scott M. Lippman, UT M. D. Anderson Cancer Center, Houston, TX
- 12:00 *New target discovery: A drug company perspective*
Mace L. Rothenberg, Pfizer, Inc., San Diego, CA

*Indicates proffered presentation from selected abstracts