

LUNG CANCER TRANSLATIONAL SCIENCE FROM THE BENCH TO THE CLINIC

January 4-7, 2016 • Hard Rock Hotel • San Diego, CA

Poster Session A, Tuesday, January 5, 2016, 12:30 p.m.-2:30 p.m.

Small Cell Lung Cancer

A01 Small cell lung cancer is dependent upon mTOR and amino-acid sensing Ragulator complex for chemotherapy resistance. [Milind D Chalise](#), Anandaroop Mukhopadhyay, Matthew Guthrie, Zeping Hu, Ralph DeBerardinis, Trudy G Oliver.

A02 Validation of L-Myc as a viable therapeutic target in small cell lung cancer. [Dong-Wook Kim](#), Colin Thomas Dunn, Julien Sage, Kwon-Sik Park.

A03; PR02 Loss of somatostatin receptor 2 expression reduces small cell lung cancer growth and alters cellular metabolism. [Jonathan Merle Lehman](#), Megan Hoeksema, Jun Qian, Chen Heidi, Chanjuan Shi, Rosana Eisenberg, Pierre Massion.

A05 Myxomavirus (MYXV) therapy for small cell lung cancer (SCLC) using patient samples and a genetically engineered SCLC mouse model. [Daniil E Shabashvili](#), Masmudur Rahman, Patrick Kellish, Harald Messer, Mary Reinhard, Grant McFadden, Frederic Kaye, Maria Zajac-Kaye.

Drug Resistance

A06 A novel patient-derived cell line originated at the time of crizotinib resistance displays a mesenchymal phenotype. [Karinna Almodovar-Garcia](#), Yingjun Yan, Yuanyuan Wang, Zhongming Zhao, Xingyi Guo, Yaomin Xu, Christine M Lovly.

A07 A pilot study utilizing integrated approaches to treating lung adenocarcinoma resistant to targeted therapy. [Jin Jen](#).

A08 Single cell analyses reveal heterogeneity in EGFR mutant cancers resistant to TKI. [Matthew Niederst](#), Zofia Piotrowska, Huidan Zhang, Haichuan Hu, Angel Garcia, Hillary Mulvey, Elizabeth Lockerman, Dana Lee, Anuj Kalsy, Dave Weitz, Lecia Sequist, Jeffrey Engelman.

Animal Models

A09; PR01 Novel epidermal growth factor receptor inhibitor accumulates in the brain and inhibits the growth of brain metastatic non-small cell lung cancer. Christina A. Jamieson, Michelle Muldong, Yun Oliver Long, Ida Dechaite, Alan Lewis, David W Anderson, [Nicholas A. Cacalano](#).

A10 Determination of real-time tumor oxygenation changes following high dose radiotherapy in orthotopic and subcutaneous lung cancers in mice. Changhoon Song, Beom-Ju Hong, Seoyeon Bok, Chan-Ju Lee, Young-Eun Kim, Sang-Rok Jeon, Yun-Sang Lee, Gi Jeong Cheon, Jin Chul Paeng, G-One Ahn, [Hak Jae Kim](#).

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A11 Single-cell mRNA-seq analysis of mucinous lung tumor. [Yutaka Maeda](#).

A12; PR07 Regulation of lung adenocarcinoma differentiation and growth by the transcription factors Nkx2-1/TTF1, Foxa1 and Foxa2. Shrivatsav Pattabiraman, [Eric L Snyder](#).

A13 Characteristics, oncogene dependency, and response to ponatinib of a novel transgenic mouse model of KIF5B-RET-induced lung adenocarcinoma. Qingling Huang, Valentina E. Schneeberger, Noreen Luetkeke, Roha Afzal, Mikalai M Budzevich, Rikesh Makanji, Gary V Martinez, Domenico Coppola, [Jie Wu](#).

Diagnosics and Biomarkers

A14 Gold nanorod immunoassay to quantify C-Met expression in NSCLC patients selected for anti-EGFR therapy. [Chuck Caldwell](#), Raghuraman Kannan, Gerald Arthur, Dmitry Shin, Ilker Ersoy, Richard Hammer.

A15 Quantitative mass spectrometry-based proteomics identifies FRalpha and GARFT as predictive biomarkers in tissues of non-squamous NSCLC patients treated with pemetrexed. Alshehri Abdulrahman, Eunkiung An, [Fabiola Cecchi](#), Adele Blackler, Shankar Sellappan, Matt Smolkin, Todd Hembrough, Manish Monga.

A16 Detection of a novel RET gene fusion in a non-small cell lung cancer patient using AMP chemistry. [Peng Fang](#), Zhenyu Yan, Weihua Liu, Jennifer Biroshak, Paul Labrousse, Jennifer Wright, Cindy Spittle, Chad Galderisi, Jin Li.

A17 Mutational profile of non-small cell lung cancer by targeted next-generation sequencing in the Mexican population. Giovanni Socca, Carmen Alaez, [Norma Hernandez-Pedro](#), Pedro A Barrios-Bernal, Karol Carrillo-Sanchez, Alejandro Aviles, Oscar Arrieta.

A18 Detection of viral induced double-stranded RNA intermediates in archival paraffin blocks. [Galen Hostetter](#), Eric Collins, Bree Berghius, Lisa Turner, Eric Hudson, Lorenzo Sempere, Scott Jewell.

A19 Prediction of distant recurrence-free survival in resectable lung adenocarcinoma. Beatrice Aramini, Christian Casali, Alessandro Stefani, Stefania Bettelli, Susanne Wagner, Zaina Sangale, [Elisha Hughes](#), Jerry Lanchbury, Antonino Maiorana, Uliano Morandi.

A20 Constitution of ALK fusion variants in East Asian lung adenocarcinoma. Ju Cheng, Yoon-La Choi, Fan Yang, Weijie Zhao, Lili Jiang, Qing Xu, Feng Zhang, Qingyang Gu, Jhingook Kim, Caicun Zhou, [Mao Mao](#).

A21 Optimized NGS panel and data analysis enable high sensitivity of detecting colon and lung cancer associated mutations from plasma. Lina Ma, Feng Zhang, Qing Xu, Xiannian Tang, [Mao Mao](#).

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A22; PR03 Piwi-interacting RNA transcriptome analyses identify cancer type-specific expression and signatures predicting lung tumor behavior. [Victor D Martinez](#), Katey SS Enfield, Emily A Vucic, Natalie Firmino, Kevin L Bennewith, Stephen Lam, Wan L Lam.

A23 Whole blood FPR1 mRNA expression identifies both non-small cell and small cell lung cancer. [Scott M Morris](#), Anil Vachani, Harvey I Pass, William N Rom, Glen J Weiss, D Kyle Hogarth, George Runger, Robert J Penny, Kirk Ryden, Donald Richards, W Troy Shelton, David W Mallery.

A24 Serum glutathione peroxidase 3 as a biomarker of postoperative relapse in patients with lung cancer. [In-Jae Oh](#), Hyun-Ju Cho, Tae-Ok Kim, Chul-Kyu Park, Jung-Hwan Lim, Young-Chul Kim, Ju-Sik Yoon, Sang-Yun Song, Kook-Joo Na, Yoo-Duk Choi, Byung-Chul Ahn, Seung-Won Lee.

A25 Liquid biopsies could be superior to tumor biopsy to provide a molecular profile in non-small cell lung cancer (NSCLC) patients. [Jordi Remon](#), Ludovic Lacroix, David Planchard, Chloe Pannet, Cecile Jovelet, Andrew Lawson, Sarah Smalley, Kevin Howarth, David Gale, Emma Green, Vincent Plagnol, Nicolas Rosenfeld, Jean-Charles Soria, Benjamin Besse.

A26 Gene expression classifier for prognosis of early stage squamous cell carcinoma of the lung. Rintaro Noro, Naomi Walsh, Teruhide Ishigame, Kouya Shiraishi, [Ana I Robles](#), Bríd M Ryan, Elise Bowman, Judith A Welsh, Aaron J Schetter, Vidar Skaug, Steen Mollerup, Aage Haugen, Jun Yokota, Takashi Kohno, Curtis C Harris.

A27; PR06 MET:GRB2 complexes define a subset of lung cancer with potential vulnerability to MET inhibition. [Matthew A Smith](#), Thomas Licata, Aliya Lakhani, Mariella Varella-Garcia, Hans-Ulrich Schildhaus, Vincent Vuaroqueaux, Heinz-Herbert Fiebig, Eric B Haura.

A28 Routine molecular testing of resected early stage lung adenocarcinoma with targeted next-generation sequencing demonstrates a high rate of actionable mutations. [Brendon M Stiles](#), Abu Nasar, Mohamed Kamel Hussein, Galal Rafik Ghaly, Mohamed Rahouma Ahmed, Jeffrey L Port, Paul C Lee, Andrew B Nguyen, Eugene Shostak, Alain C Borczuk, Michael J Kluk, Nasser K Altorki.

A29 Magnetic nanocubes for selective capture of circulating tumor cells in NSCLC. [Dhananjay Suresh](#), Anandhi Upendran, Raghuraman Kannan.

A30 Characterization of programmed cell death-1 ligand (PD-L1) expression in circulating tumor cells (CTCs) of lung cancer. Rachel Krupa, David Lu, Ryon Graf, Jessica Louw, Lyndsey Dugan, Adam Jendrisak, Kelly Bethel, [Yipeng Wang](#), Dena Marrinucci, Ryan Dittamore.

A31 Validation of DNA methylation marker SHOX2 and PTGER4 for detection of lung cancer in plasma. Anne Schlegel, Oliver Hasinger, Thomas König, [Gunter Weiss](#).

A32 Control for stochastic sampling variation and qualitative sequencing error in next-generation sequencing analysis of KRAS actionable mutations. Jiyoun Yeo, Thomas M Blomquist, Xiaolu Zhang, Erin L Crawford, [James C Willey](#).

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Other

A33 Deregulated SOX2 drives dysplasia in a novel 3D organotypic model of bronchial dysplasia. [Lúcia L Correia](#), Trevor D Littlewood, Gerard Evan, Frank McCaughan.

A34 Strong pharmacological activity of locally administered next generation antisense oligonucleotides (ASOs) in orthotopic lung cancer mouse models. [Minji Jo](#), Joanna Schmidt, Tianyuan Zhou, Xuefeng Wu, Jeffrey R Crosby, Emily Brand, Youngsoo Kim, A Robert MacLeod.

A35 Prognostic nomogram for predicting survival of non-small-cell lung cancer patients. [Jeong Seon Ryu](#), Bo-Rim Yi, Jung Soo Kim.

Novel Targets and Pathways

A36 Targeting tumor metabolism to improve radio-sensitivity in non-small cell lung cancer (NSCLC). [Theodoros Tsakiridis](#), Linda Villani, Michael Tronccone, Stephanie Gargnelli, Laura Szychla, Gregory Pond, Gregory Steinberg.