An AACR Special Conference on
THE FUNCTION OF TUMOR MICROENVIRONMENT
IN CANCER PROGRESSION
January 7-10, 2016 • Hard Rock Hotel • San Diego, CA

Poster Session B, Friday, January 8, 4:00 p.m.-6:00 p.m.

Metabolism and Tumor Microenvironment

B01 The metabolic adaptations during cancer-stroma co-evolution: The intracellular pH, NAD(P)H changes and hydrogen peroxide production in cancer cells. Irina N. Druzhkova, Marina V. Shirmanova, Maria M. Lukina, Varvara V. Dudenkova, Vsevolod V. Belousov, Sergey A. Lukiyanov, Elena V. Zagaynova.

B02 Oncogene MCT-1 deregulates oxidative metabolism and promotes tumor metastasis via YY1 signaling network. Hong-Yu Tseng, Yen-An Chen, Yi-Rong Chen, Hsin-Ling Hsu.

B03 Control of pancreatic cancer metabolism and histone acetylation by the tumor microenvironment. Mara H Sherman, Ronald M Evans.


B05 N-Myc downstream regulated gene 2 is a novel regulator of lipid metabolism and ubiquitin-proteasome system in cancer. Libo Yao, Xia Li, Xiping Liu, Yi Ru, Mei Zhang.

Therapeutic Targeting Tumor Microenvironment

B06 Characterizing the effects of hypoxia and hydrostatic pressure on the expression of immunotherapeutic targets in prostate cancer cell lines and donor immune cells in culture. Bruce A Adams, James Lim, Tianna Chow, Susan Bernstein, Charles J Ryan.

B07 Utilizing consomic xenograft models to identify genetic variants in the tumor microenvironment that determine breast cancer radiation responses. Carmen Bergom, Michael Straza, Amy Rymaszewski, Anne Frei, Angela Lemke, Shirng-Wern Tsaih, Howard Jacob, Michael J. Flister.

B08, PR09 Antibody mediated blockade of phosphatidylserine synergizes with immune checkpoint blockade by inhibiting multiple immune suppressive mechanisms. Xianming Huang, Jian Gong, Michael Gray, Van Nguyen, Ryan Parks, Chris Hughes, Jeff Hutchins, Rolf Brekken, Bruce Freimark.

B09 Ron receptor signaling promotes resistance to androgen ablation therapy in prostate cancer. Nicholas E Brown, Andrew M Paluch, Susan E Waltz.

B10 Humanized anti-CD29 monoclonal antibody that inhibits multiple cancer hallmarks driven by the tumor microenvironment. Shawn Carbonell.

B11 Targeting mesenchymal cells in the tumor stroma by GPX4 inhibition. Shrikanta Chattopadhyay, Cherrie Huang, Nibin Baryawno, Nicolas Severe, Vasanthi Viswanathan, Zarko Boskovic, Siddhartha Mukherjee, Jeff Gentry, Ben Wittner, Sridhar Ramaswamy, Alykhan Shamji, David Scadden, Stuart Schreiber.
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**B12** Mast cell-associated macrophage recruitment promotes gastric tumor growth. Moritz Eissmann, Andrew Jarnicki, Frederic Masson, Michael Buchert, Robert O'Donoghue, Toby Phesse, Christine Dijkstra, Michele Grimbaldeston, Matthias Ernst.

**B13** Disruption of DDR2-collagen interactions in tumor and stroma with a novel small molecule inhibitor blunts cancer metastasis. Whitney R Grither, Gregory D Longmore.

**B14** Discoidin domain receptor 1 activity drives an aggressive phenotype in gastric adenocarcinoma. Hoon Hur, In-hye Ham, Da Keun Lee, Hye-Jin Jin, Aguilera Kristina Y., Hae Jeong Oh, Sang-Uk Han, Ji-Eun Kwon, Young Bae Kim, Ke Ding, Rolf Brekken.

**B15** Targeting NOX4 in the tumor microenvironment inhibits myofibroblast differentiation and suppresses tumor progression. Christopher J Hanley, Massimiliano Mellone, Gareth J Thomas.

**B16** Lymphatics in triple negative breast cancer: Contribution to chemotherapeutic efficacy in vitro and in vivo. Alexandra H Harris, Jennifer M Munson.


**B18** CXCL10 suppresses tumor angiogenesis and impedes expression of critical angiogenic factors in renal cell carcinoma. Hyun A Jin, Jun Hyeok Heo, You Hyun Kang, Ki Hong Kim, Kyung Suk Han, Sung Joon Hong.

**B19** Vascular normalization suppresses tumor progression and potentiates docetaxel chemotherapy in prostate cancer. You Hyun Kang, Hyun A Jin, Jun Hyeok Heo, Ki Hong Kim, Kyung Seok Han, Sung Joon Hong.


**B22** Necuparanib inhibits pancreatic cancer progression and invasion in a 3D tumor and stromal cell co-culture system. Amanda MacDonald, Michelle Priess, Jennifer Curran, Silva Krause.

**B23** Synthetic peptides suppress M2 macrophages and synergize with chemotherapy in prostate and breast cancer models. Henry Lopez, George R. Martin, Jesse M. Jaynes, Clayton Yates.

**B24** Targeting hyaluronan sensitizes breast cancer associated fibroblasts to lapatinib and overcomes stromal resistance. Andriy Marusyk, Doris Tabassum, Jennifer Guerriero, Andrew Place, Andrii Rozhok, Antony Letai, Kornelia Polyak.
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B25 Characterization, targeting, and modulation of carbonic anhydrase IX activity for the development of small-molecule inhibitors to treat triple-negative breast cancer. Mam Y Mboge, Zhijuan Chen, Brian P Mahon, Nicole Lamas, Shingkuang Tu, Fabrizio Carta, Claudiu T Superan, Robert McKenna, Susan C Frost.

B26 Novel pro-host role for insulin receptor substrate-1 in lung adenocarcinoma. Heather E Metz, Julia Kargl, Stephanie Busch, Kyoung-Hee Kim, McGarry Houghton.


B28 NQO1 stabilizes HIF-1α by inhibiting proteasome-mediated degradation. Eun-Taex Oh, Chan-Woo Kim, Heon Joo Park.

B29 Interleukin-4 receptor targeted AP1-ELP-KLAK for enhancing targeted drug delivery and antitumor effect. Sarangthem Vijaya Devi, Yun Jae Kim, Yong Jin Lee, Bo-yeon Seo, Sun-ha Cheon, Byung-Heon Lee, Rang-Woon Park.


B31 Cytokine-mediated paracrine communication between pancreatic cancer and stellate cells and therapeutic applications for pancreatic ductal adenocarcinoma. Yu Shi, Tony Hunter.

B32 A tumor microenvironment specific EGFR targeting antibody-drug conjugate promotes regression in KRAS or BRAF mutant tumors. Bob Veneziale, Lei Huang, Xiaoming Li, Giping Zhao, Chunmei Zhao, Ryan Osgood, Jessica Cowell, Sanna Rosengren, Jason Parise, Ge Wei, Kim Phan, Robert Connor, Steve Rowe, Gilbert Keller, Gregory Frost, Dan Maneval, Curtis Thompson, Michael Shepard, Christopher Thanos.


Translational Potential of the Microenvironment

Tumor Microenvironment and Metabolic Adaptations

B36 Interrogating cellular metabolism to improve therapy for EGFR mutant NSCLC. Chun-Te Chiang, Chi-Li Chiu, Cosimo Arnesano, Scott E Fraser, David B Agus, Dan L Ruderman, Shannon M Mumenthaler.


Tumor and Stromal Cell Impact on Early Events in Carcinogenesis

B38 Myeloid cells mold the microenvironment of nascent tumor and the associated immunoregulation. Mario Paolo Colombo.

B39 Identifying molecular signatures of tumor dormancy as a basis for the rational design of precision nanomedicines. Galia Tiram, Shiran Ferber, Ronit Satchi-Fainaro.


B41 Cell-contact dependent epithelial-stromal cross talk, including a modulation of stromal PDGFR expression, drives the progression of early stage breast cancer lesions. Carina Strell, Janna Paulsson, Artur Mezheyevski, Shao-Bo Jin, Pernilla Roswall, Johanna Andrea, Oliver Frings, Fredrick Warnberg, Hemming Johansson, Karin Jirstrom, Kristian Pietras, Per Hall, Urban Lendahl, Christer Betsholtz, Derek C Radisky, Arne Ostman.

B42 Dysregulation of key microRNAs controlling tumor-host interactions triggers escape from osteosarcoma dormancy. Galia Tiram, Paula Ofek, Taturo Udagawa, Noam Shomron, Maayan Roniger, Batsheva Kerem, Yuval Shaked, Sarit Aviel-Ronen, Iris Barshack, Marcelo Calderon, Rainer Haag, Ronit Satchi-Fainaro.