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6171  EpCAM-Regulated Transcription Exerts Influences on Nanomechanical Properties of Endometrial Cancer Cells That Promote Epithelial-to-Mesenchymal Transition
Ya-Ting Hsu, Pawel Osmulski, Yao Wang, Yi-Wen Huang, Lu Liu, Jianhua Ruan, Victor X. Jin, Nameer B. Kirma, Maria E. Gaczynska, and Tim Hui-Ming Huang
Précis: This study advances understanding of how the biophysical properties of cancer cells must be altered to achieve an epithelial-mesenchyme transition in their status, a pivotal step in gaining invasive properties that can elude normal tissue barriers.

MICROENVIRONMENT AND IMMUNOLOGY

6183  BPTF Depletion Enhances T-cell–Mediated Antitumor Immunity
Kimberly Mayes, Suehyb G. Alkhatib, Kristen Peterson, Aiman Alhazmi, Carolyn Song, Vivian Chan, Tana Blevins, Mark Roberts, Catherine I. Dumur, Xiang-Yang Wang, and Joseph W. Landry
Précis: The results of this study document a novel chromatin regulator, which, when inhibited, improves antitumor immunity.

6193  Nutritional Stress Induced by Tryptophan-Degrading Enzymes Results in ATF4-Dependent Reprogramming of the Amino Acid Transporter Profile in Tumor Cells
Elina Timosenko, Hemza Ghabbane, Jonathan D. Silk, Dawn Shepherd, Uzi Gileadi, Lauren J. Howson, Robert Laynes, Qi Zhao, Robert L. Strausberg, Lars R. Olsen, Stephen Taylor, Francesca M. Buffa, Richard Boyd, and Vincenzo Cerundolo
Précis: These findings reveal the mechanisms by which cancer cells but not T cells can compensate for tryptophan deprivation in a tumor microenvironment by upregulating the expression of amino acid transporters that mediate cellular tryptophan uptake.
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6205 Snail1-Dependent Activation of Cancer-Associated Fibroblast Controls Epithelial Tumor Cell Invasion and Metastasis
Lorena Alba-Castellón, Rubén Olivera-Salgueiro, Aída Mestre-Farrer, Raúl Peña, Mercedes Hernera, Félix Bonilla, J. Ignacio Casal, Josep Baulida, Cristina Peña, and Antonio García de Herreros
Précis: Eliminating Snail1 function in tumor stromal fibroblasts prevents the invasive capacity of epithelial tumor cells.

6218 Interleukin-30 Promotes Breast Cancer Growth and Progression
Irma Airoldi, Claudia Cocco, Carlo Sorrentino, Domenico Angelucci, Serena Di Meo, Lamberto Manzoli, Laura Iezzi, Clara Natoli, and Emma Di Carlo
Précis: This study describes the breast cancer-promoting activity of endogenous IL30 in the tumor microenvironment, which promotes tumor cell proliferation, migration, and inflammatory characters associated with a metastatic program, with potential biomarker and therapeutic implications.

6230 Ccl22 Diverts T Regulatory Cells and Controls the Growth of Melanoma
Précis: These findings offer preclinical proof of concept for the potential utility of the chemokine CCL22, as delivered by local injection, to enhance the efficacious response of immune checkpoint therapy in melanoma patients while suppressing the autoimmune side-effects of the treatment.

6241 Thymic Stromal Chemokine TSLP Acts through Th2 Cytokine Production to Induce Cutaneous T-cell Lymphoma
Naomi Takahashi, Makoto Sugaya, Hiraku Suga, Tomonori Oka, Makiko Kawaguchi, Tomomitsu Miyagaki, Hideki Fujita, and Shinichi Sato
Précis: A growth-reinforcing cycle reported in atopic dermatitis also functions in cutaneous T-cell lymphoma, not only inducing a Th2-dominant tumor environment but also stimulating tumor cell proliferation in this malignancy.

6253 Trametinib Drives T-cell–Dependent Control of KRAS-Mutated Tumors by Inhibiting Pathological Myelopoiesis
Précis: This study reveals a new perspective on the antitumor activity of FDA-approved MEK inhibitors, revealing that they enhance protective immunity in vivo by influencing multiple cell types in divergent ways, acting overall to prevent the accumulation of immunosuppressive leukocytes in tumor beds.

6266 Agonistic CD40 mAb-Driven IL12 Reverses Resistance to Anti-PD1 in a T-cell–Rich Tumor
Shin Fong Ngioi, Arabella Young, Stephen I. Blake, Geoffrey R. Hill, Hideo Yagita, Michele W.L. Teng, Alan J. Korman, and Mark J. Smyth
Précis: This study offers a proof-of-concept framework to systematically identify immune conditioning agents that can convert PD1hi T cells to PD1lo T cells, with clinical implications for the management of patients resistant to anti-PD1 immune checkpoint antibodies.

Molecular and Cellular Pathobiology

6278 Wnt Signaling Promotes Breast Cancer by Blocking ITCH-Mediated Degradation of YAP/TAZ Transcriptional Coactivator WBP2
Précis: This study identifies how a new oncogene in breast cancer is normally suppressed to prevent aberrant growth but becomes activated to promote cancer, with potential implications to understand and therapeutically exploit a critical interface between the WNT and Hippo signaling pathways that drive this disease.

6290 MNX1 Is Oncogenically Upregulated in African-American Prostate Cancer
Li Zhang, Jianghua Wang, Yongquan Wang, Yiqun Zhang, Patricia Castro, Longjiang Shao, Arun Sreekumar, Nagireddy Putluri, Nilanjan Guha, Saligrama Deepak, Anurkumar Padmanaban, Chad J. Creighton, and Michael Ittmann
Précis: An oncogene regulated by androgen and AKT is activated in prostate cancers relatively more frequently in African-American men, potentially offering a novel therapeutic target to address the increased incidence of aggressive disease in this patient population.
EGFL6 Regulates the Asymmetric Division, Maintenance, and Metastasis of ALDH$^+$ Ovarian Cancer Cells

Shoumei Bai, Patrick Ingram, Yu-Chih Chen, Ning Deng, Alex Pearson, Yashar S. Niknafs, Patrick O'Hayer, Yun Wang, Zhong-Yin Zhang, Elisa Boscolo, Joyce Bischoff, Euisik Yoon, and Ronald J. Buckanovich

Précis: These results offer preclinical proof of concept for a compelling new therapeutic target to improve the management of ovarian cancer.

TG2 and NF-κB Signaling Coordinates the Survival of Mantle Cell Lymphoma Cells via IL6-Mediated Autophagy

Han Zhang, Zheng Chen, Roberto N. Medeiros, and Nami McCarty

Précis: These results illuminate a novel interconnected network of signaling and autophagy pathways in a clinically problematic form of non-Hodgkin lymphoma, the disruption of which may offer an effective therapeutic strategy.

Correction: miR-29b Mediates NF-κB Signaling in KRAS-Induced Non-Small Cell Lung Cancers

About the Cover

Upregulation of the stem cell reprogramming factor PBX1 mediates resistance to platinum-based chemotherapy in ovarian cancer. Using an in vitro dual-color competition assay, PBX1-positive cells were labeled green and PBX1-negative cells were labeled red. It was found that PBX1-positive cells escaped the cytotoxic effects from a platinum-based agent, carboplatin, much more efficiently than did PBX1-negative cells, as demonstrated by an increased green to red ratio at several days following carboplatin treatment. For details, see article by Jung and colleagues on page 6351.
Cancer Research

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