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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

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6183 BPTF Depletion Enhances T-cell–Mediated Antitumor Immunity
Kimberly Mayes, Suehyb G. Alkhaitib, Kristen Peterson, Aiman Alhazmi, Carolyn Song, Vivian Chan, Tana Blevins, Mark Roberts, Catherine I. Dumur, Xiang-Yang Wang, and Joseph W. Landry

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 Ghardbane, 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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<td>Snail1-Dependent Activation of Cancer-Associated Fibroblast Controls Epithelial Tumor Cell Invasion and Metastasis</td>
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## MOLECULAR AND CELLULAR PATHOBIOLOGY

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<td>MNX1 Is Oncogenically Upregulated in African-American Prostate Cancer</td>
<td>Li Zhang, Jianghua Wang, Yongquan Wang, Yiqun Zhang, Patricia Castro, Longjiang Shao, Arun Sreekumar, Nagireddy Pulluri, Nilanjan Guha, Saligramma Deepak, Arunkumar Puturi, Padmanaban, Chad J. Greighton, and Michael Ittmann</td>
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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.

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.

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.

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.
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6299  LncRNA HOXA11-AS Promotes Proliferation and Invasion of Gastric Cancer by Scaffolding the Chromatin Modification Factors PRC2, LSD1, and DNMT1
Ming Sun, Fengqi Nie, Yunfei Wang, Zhihong Zhang, Jiakai Hou, Dandan He, Min Xie, Lin Xu, Wei De, Zhaoxia Wang, and Jun Wang
Précis: New therapeutic directions are suggested by this mechanistic study of a gastric cancer-associated long noncoding RNA, which coordinates tumor suppressor functions.

6311  Posttranscriptional Uregulation of p53 by Reactive Oxygen Species in Chronic Lymphocytic Leukemia
Précis: These findings suggest that reactivation of the full transcriptional activities of p53 in proliferating chronic lymphocytic leukemia may offer a possible therapeutic strategy.

6320  BET Inhibitors Suppress ALDH Activity by Targeting ALDH1A1 Super-Enhancer in Ovarian Cancer
Précis: BET inhibitors offer a novel strategy to target ALDH activity, a functional marker in cancer stem-like cells, which in combination with platinum-based therapies are shown to have efficacious effects in ovarian cancer.

THERAPEUTICS, TARGETS, AND CHEMICAL BIOLOGY

6331  Preclinical Efficacy of the Auristatin-Based Antibody–Drug Conjugate BAY 1187982 for the Treatment of FGFR2-Positive Solid Tumors
Anette Sommer, Charlotte Kopitz, Christoph A. Schatz, Carl F. Nising, Christoph Mahlert, Hans-Georg Lerchen, Beatrix Stelte-Ludwig, Stefanie Hammer, Simone Greven, Joachim Schuhmacher, Manuela Braun, Ruprecht Zierer, Sabine Wittener-Rump, Axel Harrensa, Frank Dittmer, Frank Reetz, Heiner Apeler, Rolf Jautelat, Hung Huynh, Karl Ziegelbauer, and Bertolt Kreft
Précis: These findings offer a novel preclinical rationale to clinically translate a novel antibody–drug conjugate to target a growth factor receptor that is overexpressed in a variety of drug-refractory solid tumor types, including gastric, breast, and ovarian cancers.

6340  RK-33 Radiosensitizes Prostate Cancer Cells by Blocking the RNA Helicase DDx3
Min Xie, Farhad Vesuna, Saritha Tantravedi, Guus M. Bol, Marie R. Reerma van Voss, Katriana Nugent, Reem Malek, Kathleen Gabrielson, Paul J. van Diest, Phuoc T. Tran, and Venu Raman
Précis: These findings offer preclinical proof of concept for a candidate small-molecule therapy that can increase the efficacy of radiotherapy without increasing apparent side effects.

6351  Ovarian Cancer Chemoresistance Relies on the Stem Cell Reprogramming Factor PBX1
Jin-Gyoung Jung, Je-Ming Shih, Joon Tae Park, Emily Gerry, Tae Ho Kim, Ayse Ayhan, Karen Handschu, Ben Davidson, Amanda N. Fader, Licia Selleri, and Tian-Li Wang
Précis: These findings offer a mechanistic rationale to target the PBX1/STAT3 axis in ovarian cancers to defeat a key mechanism of chemoresistance, which emerges in nearly every patient after first-line treatment.

6362  Histone H3K27 Trimmethylation Modules 5-Flourouracil Resistance by Inhibiting PI.1 Binding to the Dpyd Promoter
Rentian Wu, Qian Nie, Erin E. Tapper, Calvin R. Jerde, Garrett S. Dunlap, Shikshya Shrestha, Tarig A. Elraiyah, Steven M. Offer, and Robert B. Diasio
Précis: These findings suggest new biomarkers with potential clinical utility to identify patients who could benefit most from aggressive adjuvant chemotherapy.

6374  Integrative Genomic Analysis Identifies the Core Transcriptional Hallmarks of Human Hepatocellular Carcinoma
Coralie Allain, Gaëlle Angenard, Bruno Clément, and Cédric Coulouarn
Précis: These findings establish a rationale to pursue high-throughput meta-analysis of liver cancer patient specimens to develop and target common and subtype-specific cancer networks.

TUMOR AND STEM CELL BIOLOGY

6382  Impaired Planar Germ Cell Division in the Testis, Caused by Dissociation of Rhamm from the Spindle, Results in Hypofertility and Seminoma
Hualiaio Li, Lucien Frappart, Jurgen Moll, Anne Winkler, Torsten Kroll, Jana Hamann, Iris Kufferath, Marco Groth, Stefan Taudien, Moritz Schütte, Marie-Laure Ysa, Steh Ke Heuer, Bodo M.H. Lange, Matthias Plou, Kurt Zatloukal, Peter Herli, and Aspasia Ploubidou
Précis: These findings identify the spindle-associated protein RHAMM as an intrinsic regulator of male germ cell fate and as a gatekeeper preventing initiation of testicular germ cell tumors.
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.

Ablation of miR-10b Suppresses Oncogene-Induced Mammary Tumorigenesis and Metastasis and Reactivates Tumor-Suppressive Pathways
Jongchan Kim, Ashley N. Siverly, Dahu Chen, Min Wang, Yuan Yuan, Yumeng Wang, Hyennin Lee, Jinsong Zhang, William J. Muller, Han Liang, Boyi Gan, Xianbin Yang, Yutong Sun, M. James You, and Li Ma
Précis: These results establish the critical function of an oncomiR that drives metastasis, termed a metastamiR, and define the set of critical tumor suppressor mechanisms it overcomes to drive breast cancer progression.

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.
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