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   Chris Zhiyi Zhang, Shi-Lu Chen, Chun-Hua Wang, Yang-Fan He, Xia Yang, Dan Xie, and Jing-Ping Yun
   Significance: Elucidation of a key new element of the β-catenin signaling pathway in liver cancer may suggest new therapeutic targets.

64. MYC Targeted Long Noncoding RNA DANCR Promotes Cancer in Part by Reducing p21 Levels
   Yunqi Li, Zhongyi Hu, Linggegowda S. Mangala, Zachary E. Stine, Xiaowen Hu, Daihli Jiang, Yan Xiang, Youyou Zhang, Sunila Pradeep, Cristian Rodríguez-Aguayo, Gabriel Lopez-Berestein, Angelo M. DeMarzo, Anil K. Sood, Lin Zhang, and Chi V. Dang
   Significance: These findings expand knowledge of how MYC drives cancer cell proliferation by identifying an oncogenic long noncoding RNA that is widely overexpressed in human cancers.

75. Deficiency in Protein Tyrosine Phosphatase PTP1B Shortens Lifespan and Leads to Development of Acute Leukemia
   Samantha Le Sommer, Nicola Morrice, Martina Pesaresi, Dawn Thompson, Mark A. Vickers, Graeme I. Murray, Nimesh Mody, Benjamin G. Neel, Kendra K. Rence, Heather M. Wilson, and Mirela Delibegovic
   Significance: This study defines a tumor suppressor function for the protein tyrosine phosphatase PTP1B in myeloid lineage cells, with evidence that its genetic inactivation in mice is sufficient to drive acute myeloid leukemia.

88. TGFβ Promotes Genomic Instability after Loss of RUNX3
   Vaidhehi Krishnan, Yu Lin Chong, Tuan Zeng Tan, Madhura Kulkarni, Muhammad Bakhtai Bin Rahmat, Lavina Sierra Tay, Haresh Sankar, Doorgesh S. Jokhun, Amudha Ganesan, Linda Shyue Huey Chuang, Dominic C. Voon, GV Shivashankar, Jean-Paul Thiery, and Yoshiaki Ito
   Significance: RUNX3 inactivation in cancer removes an antioxidant barrier against DNA double strand breaks induced by TGFβ expressed in the tumor microenvironment.
205 MUC1-C Induces PD-L1 and Immune Evasion in Triple-Negative Breast Cancer
Takahiro Maeda, Masayuki Hiraki, Caining Jin, Hasan Rajabi, Ashuji Tagde, Maroof Alam, Audrey Bouillez, Xiufeng Hu, Yoyo Suzuki, Masaaki Miyo, Tsuyoshi Hata, Kunihiko Hinoohara, and Donald Kufe

Significance: These findings show how upregulation of the transmembrane mucin MUC1 contributes to immune escape in an aggressive form of breast cancer, with potential implications for a novel immunotherapeutic approach.

216 miR-519d Promotes Melanoma Progression by Downregulating EphA4
Kuo-Tai Hua, Jin-Bong Hong, Yi-Shuan Sheen, Hsin-Yi Huang, Yi-Ling Huang, Jau-Shiuh Chen, and Yi-Hua Liao

Significance: These results suggest a significant role for miR-519d in determining expression of a pivotal cell adhesion molecule that may impact risks of malignant progression in many cancers.

230 Evidence for Kaposi Sarcoma Originating from Mesenchymal Stem Cell through KSHV-induced Mesenchymal-to-Endothelial Transition
Yuqing Li, Canrong Zhong, Dawei Liu, Wenjing Yu, Weikang Chen, Yan Wang, Songtao Shi, and Yan Yuan

Significance: These findings indicate that Kaposi sarcomas, which arise frequently in AIDS patients, originate from neural crest-derived mesenchymal stem cells, with possible implications for improving the clinical treatment of this malignancy.

246 Small-Molecule Inhibition of Axl Targets Tumor Immune Suppression and Enhances Chemotherapy in Pancreatic Cancer

Significance: These results establish a preclinical mechanistic rationale for the clinical development of AXL inhibitors to improve the treatment of PDAC patients.

256 Dendritic Cells Enhance Polyfunctionality of Adoptively Transferred T Cells That Target Cytomegalovirus in Glioblastoma

Significance: A randomized pilot trial in patients with GBM implicates polyfunctional T-cell responses as a biomarker for effective antitumor immunotherapy.

265 A Potent, Metabolically Stable Tubulin Inhibitor Targets the Colchicine Binding Site and Overcomes Taxane Resistance
Kinnie E. Arnst, Yuxi Wang, Dong-Jin Hwang, Yi Xue, Terry Costello, David Hamilton, Qiang Chen, Jinliang Yang, Frank Park, James T. Dalton, Duane D. Miller, and Wei Li

Significance: These findings offer preclinical proof of concept for the continued development of DJ101 as a next-generation antitubulin drug for cancer therapy.

278 Rapid Intraoperative Diagnosis of Pediatric Brain Tumors Using Stimulated Raman Histology
Todd C. Hollon, Spencer Lewis, Balaji Pandian, Yashar S. Niknafs, Mia R. Garrard, Hugh Garton, Cormac O. Maher, Kathryn McFadden, Matija Snuderl, Andrew P. Lieberman, Katrin Muraszko, Sandra Camelo-Piragua, and Daniel A. Orringer

Significance: A new imaging method simplifies diagnosis and informs decision making during pediatric brain tumor surgery.

290 ConsensusDriver Improves upon Individual Algorithms for Predicting Driver Alterations in Different Cancer Types and Individual Patients
Denis Bertrand, Sibyl Drissler, Burton K. Chia, Jia Yu Koh, Chenhao Li, Chayaporn Suphavilai, Iain Beehuat Tan, and Niranjan Nagarajan

Significance: These findings assess state-of-the-art cancer driver prediction methods and develop a new and improved consensus-based approach for use in precision oncology.
POPULATION AND PREVENTION SCIENCE

302 Results from the European Prospective Investigation into Cancer and Nutrition Link Vitamin B6 Catabolism and Lung Cancer Risk
Hui Zuo, Per M. Ueland, Øivind Midttun, Stein E. Vollset, Geethe S. Tell, Despoina Theofylaktopoulos, Ruth C. Travis, Marie-Christine Boutron-Ruault, Agnès Fournier, Gianluca Severi, Marina Kvaskoff, Heiner Boeing, Manuela M. Bergmann, Renée T. Fortner, Rudolf Kaaks, Antonia Trichopoulou, Anastasia Kotanidou, Pagona Lagiou, Domenico Palli, Sabina Sieri, Salvatore Panico, H. Bas Bueno-de-Mesquita, Petra H. Peeters, Kjell Grankvist, Mikael Johansson, Antonio Agudo, Jose Ramon Quiros Garcia, Nerea Larranaga, Maria-Jose Sanchez, Maria Dolores Chirlaque, Eva Andranaz, Shu-Chun Chuang, Valentina Gallo, Paul Brennan, Mattias Johansson, and Arve Ulvik

Significance: This large cohort study firmly establishes an association between an index of vitamin B6 levels with lung cancer risk.

CORRECTION

309 Correction: Germline BAP1 Mutational Landscape of Asbestos-Exposed Malignant Mesothelioma Patients with Family History of Cancer

ABOUT THE COVER

Kinases are master regulators of cell signaling networks that are frequently dysregulated in cancer, and members of the kinome family have been successfully targeted for therapeutic benefit. In this figure, the activity, cellular requirement, disease association, availability of protein structures and drugs, and research publications associated with each of the 535 members of the human protein kinome are displayed. It highlights how most research attention has been focused on relatively small subsets of the kinome. In the associated resource-based review, the authors discuss their current understanding of the human protein kinome, highlight emerging and overlooked areas, and describe key aspects of kinase signaling biology and some of the challenges associated with treating perturbed kinase networks in patients. For details, see article by Wilson and colleagues on page 15.