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#### Précis: These findings from Recent Cancer Literature highlight recent advancements in the field of cancer research. The Role of TLR4 in Chemotherapy-Driven Metastasis discusses the role of TLR4 in cancer progression. Ex Vivo Culture of CTCs is introduced as a promising tool for cancer therapy. Early Prediction of Disease Progression in Small Cell Lung Cancer describes a model-based approach in oncology. Cell–Cell Adhesion and Cytoskeleton Tension Oppose Each Other in Regulating Tumor Cell Aggregation reveals new principles governing multicellular aggregation. IL13 Receptor α2 Signaling requires a scaffold protein, FAM120A, to activate the FAK and PI3K Pathways in Colon Cancer Metastasis. NHANES 2009–2012 Findings report on the association of sexual behaviors with higher prevalence of oral oncogenic human papillomavirus infections in the United States. These findings provide insights into potential therapeutic targets and the impact of lifestyle choices on cancer risk. |
2520  Grapefruit-Derived Nanovectors Use an Activated Leukocyte Trafficking Pathway to Deliver Therapeutic Agents to Inflammatory Tumor Sites
Qi-long Wang, Yi Ren, Jing-yao Mu, Ne-jat K. E-gilmez, Xiao-yan Zhuang, Zhong-bin Deng, Li-feng Zhang, Jun Yan, Don-al Miller, and Huang-Ge Zhang
Précis: This interesting report defines and characterizes the tumor-targeting features of a readily available, generalizable, and nontoxic vehicle to improve the targeted delivery of therapeutic drugs to cancerous or precancerous sites, possibly offering a low-cost clinical formulation strategy to widen the therapeutic window for many drugs.

2530  Drug Redeployment to Kill Leukemia and Lymphoma Cells by Disrupting SCD1-Mediated Synthesis of Monounsaturated Fatty Acids
Andrew D. Southam, Farhat L. Khanim, Rachel E. Hayden, Julia K. Constantinou, Katarzyna M. Koczula, Robert H. Mitchell, Mark R. Viant, Mark T. Drayson, and Chris M. Bunce
Précis: The combination of two drugs found to have anticancer activity in patients is mechanistically linked in this study to decreased levels of a candidate therapeutic target involved in fatty-acid synthesis.

TUMOR AND STEM CELL BIOLOGY

2541  Grade-Dependent Metabolic Reprogramming in Kidney Cancer Revealed by Combined Proteomics and Metabolomics Analysis
Précis: This work uncovers new aspects of grade-dependent metabolic reprogramming in renal cancers that could lead to novel personalized treatments, including the use of inhibitors of glucose, glutamine, and tryptophan metabolism that are being developed in other clinical settings.

2553  Lin28B/Let-7 Regulates Expression of Oct4 and Sox2 and Reprograms Oral Squamous Cell Carcinoma Cells to a Stem-like State
Précis: These results show how cancer stem-like properties are controlled in oral squamous cancers, and how this control system may promote drug resistance and tumor relapse in advanced cancers.
G-CSF Promotes Neuroblastoma Tumorigenicity and Metastasis via STAT3-Dependent Cancer Stem Cell Activation
Saurabh Agarwal, Anna Lakoma, Zaowen Chen, John Hicks, Leonid S. Metelitsa, Eugene S. Kim, and Jason M. Shohet

Précis: This seminal study challenges the clinical use of G-CSF as a treatment to support white blood cell counts in children with neuroblastoma, based on the ability of this factor to promote the growth of the cancer stem-like cell population in this setting.

ABOUT THE COVER
Ultrasound is a complementary imaging modality for detection of mammographically occult breast cancers, especially in patients with dense breast tissue. Diagnostic accuracy of ultrasound in these patients can be significantly improved using contrast agents targeted at molecular signatures on the tumor neovasculature. In a large scale immunohistochemical staining analysis of human tissues, it was found that B7-H3 is differentially expressed in breast cancer-associated vascular endothelial cells compared with normal, benign, and precursor lesions. Also, B7-H3-targeted ultrasound molecular imaging allowed detection of breast cancer in a transgenic mouse model of breast cancer development. For details, see article by Bachawal and colleagues on page 2501.