Endothelial ALK1 Is a Therapeutic Target to Block Metastatic Dissemination of Breast Cancer

Sara I. Cunha, Matteo Bocci, John Lövrot, Nikolas Eleftheriou, Pernilla Roswall, Eugenia Cordero, Linda Lindström, Michael Bartoschek, B. Kristian Haller, R. Scott Pearsall, Aaron W. Mulivor, Ravindra Kumar, Christen Larson, Jonas Beigh, and Kristian Pietras

Précis: These findings offer preclinical proof of concept for the utility of ALK1 inhibitors to treat metastatic breast cancer, with immediate implications for evaluation of this strategy in the clinic.

Novel Associations between Common Breast Cancer Susceptibility Variants and Risk-Predicting Mammographic Density Measures


Précis: These findings deepen the evidence of shared genetic determinants between breast cancer risk and mammographic density measures, strengthening the likelihood of common etiologic pathways.


Précis: These epidemiologic results indicate that the incidence of HPV-positive oropharyngeal cancer is higher and rising more sharply among men than women in the United States because of gender-associated sexual behaviors.

Précis: These findings reveal new principles that govern multicellular aggregation, possibly paving the way for new therapeutic opportunities.

Précis: The proposed statistical framework can be used to aid personalization of disease monitoring in oncology.

Précis: The study identifies a scaffold protein required for downstream signaling of the IL13 receptor, which regulates invasion and metastasis in colon cancer, with potential implications for therapy in this setting.

Précis: These findings offer preclinical proof of concept for the utility of ALK1 inhibitors to treat metastatic breast cancer, with immediate implications for evaluation of this strategy in the clinic.
2566  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.

CORRECTIONS
2580  Correction: Identification of Pax5 as a Target of MTA1 in B-cell Lymphomas
2582  Correction: Metastasis-Associated Protein 1 Transgenic Mice: A New Model of Spontaneous B-cell Lymphomas

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.