BREAKING ADVANCES

473 Highlights from Recent Cancer Literature

REVIEWS

475 Th9 Cells: A Novel CD4 T-cell Subset in the Immune War against Cancer
Frédérique Végran, Lionel Apetoh, and François Ghiringhelli

480 Novel Insights into Head and Neck Cancer using Next-Generation "Omic" Technologies
Lusia Sepiashvili, Jeff P. Bruce, Shao Hui Huang, Brian O’Sullivan, Fei-Fei Liu, and Thomas Kislinger

MICROENVIRONMENT AND IMMUNOLOGY

487 Role of Chitinase 3–like-1 and Semaphorin 7a in Pulmonary Melanoma Metastasis
Bing Ma, Erica L. Herzog, Chun Geun Lee, Xueyan Peng, Chang-Min Lee, Xiaosong Chen, Sara Rockwell, Ja Seok Koo, Harriet Kluger, Roy S. Herbst, Mario Sznol, and Jack A. Elias

Pre: A member of an ancient gene family that binds the chitin in fungi and other pathogens is found to be needed to program lung microenvironments that are permissive for metastasis, with potential implications for learning how to block dissemination of many types of cancer to this common site.

497 Strict Requirement for Vector-Induced Type I Interferon in Efficacious Antitumor Responses to Virally Encoded IL12
Ignacio Melero, Jose I. Quertglas, Mercedes Reboredo, Juan Dubrot, Juan R. Rodríguez-Madoz, Uxua Manchiero, Erkuden Casales, Jose I. Riezu-Boj, Marta Ruiz-Guillen, Maria C. Ochoa, Miguel F. Sanmamed, Nathalie Thieblemont, Cristian Smerdou, and Sandra Hervas-Stubbs

Pre: These findings link overexpression of a lysophosphatidic acid receptor during liver cancer development to upregulation of the PIM3 oncogene, which is implicated in histone modification and apoptosis, with implications for prognosis and treatment in this disease setting.

MOLECULAR AND CELLULAR PATHOBIOLOGY

532 Lysosphatidic Acid Receptor LPAR6 Supports the Tumorigenicity of Hepatocellular Carcinoma
Antonio Mazzocca, Francesco Dituri, Flavia De Santis, Addolorata Filannino, Chiara Lopane, Regina C. Betz, Ying-Yi Li, Naofumi Mukaida, Peter Winter, Cosimo Tortorella, Gianluigi Giannelli, and Carlo Sibba

Pre: These findings reveal an immunosuppressive function for an miRNA thought to be solely immunostimulatory, establishing a contextual role that prompts caution for suggested strategies to manipulate its expression for cancer therapy.

544 Human Pancreatic Cancer Tumors Are Nutrient Poor and Tumor Cells Actively Scavenge Extracellular Protein
Jurrie J. Kamphorst, Michel Nofal, Cosimo Commissio, Sean R. Hackett, Wenyun Lu, Elda Grabocka, Matthew G. Vander Heiden, George Miller, Jeffrey A. Drebin, Dafna Bar-Sagi, Craig B. Thompson, and Joshua D. Rabinowitz

Pre: Scavenging of extracellular protein represents a previously unappreciated pathway of nutrient uptake in human pancreatic tumors, providing new insights into how these tumors grow in nutrient-poor conditions.
ABOUT THE COVER

Altered metabolism is a common feature of cancer cells, but little is known as to what metabolic changes benefit breast cancer brain metastases. Fructose-1,6-bisphosphatase 2 (FBP2), a rate limiting enzyme of gluconeogenesis, was found to be significantly upregulated in breast cancer brain metastasis. FBP2 empowers brain metastatic cancer cells with the ability to grow independently of glucose. For details, see article by Chen and colleagues on page 554.