EDITORIALS

607 Targeting "Retired Antigens" for Cancer Immunoprevention
Robert H. Shoemaker and Thomas G. Forsthuber
See related article, p. 612

609 What Factors Influence Decision-Making about Breast Cancer Chemoprevention among High-Risk Women?
Katherine D. Crew
See related article, p. 625

RESEARCH ARTICLES

612 Primary Immunoprevention of Epithelial Ovarian Carcinoma by Vaccination against the Extracellular Domain of Anti-Müllerian Hormone Receptor II
Suparna Mazumder, Justin M. Johnson, Valerie Swank, Nina Dvorina, Elizabeth Martelli, Jennifer Ko, and Vincent K. Tuohy
See related editorial, p. 607

625 NRG Oncology/National Surgical Adjuvant Breast and Bowel Project Decision-Making Project-1 Results: Decision Making in Breast Cancer Risk Reduction
Christine Holmberg, Hanna Bandos, Angela Fagerlin, Therese B. Bevers, Tracy A. Battaglia, D. Lawrence Wickerham, and Worta J. McCaskill-Stevens
See related editorial, p. 609

635 Gene Methylation Biomarkers in Sputum and Plasma as Predictors for Lung Cancer Recurrence
Steven A. Belinsky, Shuguang Leng, Guodong Wu, Cynthia L. Thomas, Maria A. Picchi, Sandra J. Lee, Seena Aisner, Suresh Ramalingam, Fadlo R. Khuri, and Daniel D. Karp

641 Targeting Aberrant p70S6K Activation for Estrogen Receptor–Negative Breast Cancer Prevention
Xiao Wang, Jun Yao, Jinyang Wang, Qingling Zhang, Samuel W. Brady, Banu Arun, Victoria L. Seewaldt, and Dihua Yu

651 Alterations in Bronchial Airway miRNA Expression for Lung Cancer Detection
Ana B. Pavel, Joshua D. Campbell, Gang Liu, David Elashoff, Steven Dubinett, Kate Smith, Duncan Whitney, Marc E. Lenburg, and Avrum Spira for the AEGIS Study Team

660 Caloric Restriction Prevents Carcinogen-Initiated Liver Tumorigenesis in Mice
Jonathan M. Ploeger, Juan C. Manivel, Lauren N. Boatner, and Douglas G. Mashek

671 The Second-Generation PGI2 Analogue Treprostinil Fails to Chemoprevent Tumors in a Murine Lung Adenocarcinoma Model
Lon Dwyer-Nield, Gregory A. Hickey, Micah Friedman, Kevin Choo, Debbie G. McArthur, Meredith A. Tennis, Melissa L. New, Mark Geraci, and Robert I. Keith
About the Cover

While estrogen receptor (ER) negative (ER−) breast cancer remains a major challenge in the cancer prevention field, ER modulators and aromatase inhibitors have shown adequate efficacy in the prevention of ER+ breast cancer. The activation of Akt signaling pathway has been detected in atypical hyperplasic early stage lesions of patients. In the current study, Akt and the downstream aberrantly activated 70 kDa ribosomal protein S6 (p70S6K) and MAP kinase pathways were identified to confer targeting advantages of premalignant breast lesions in progression to ER− breast cancer using small molecule kinase inhibitors. The micrograph images show human mammary epithelial cells (hMECs) under 3D culture conditions stained for polarity (Laminin V, red) and proliferation (Ki-67, green) markers. The third row of cells: left, normal hMEC acini in a rounded shape with defined boundary and limited cell proliferation (growth arrested); middle, ErbB2-transformed hMEC acini showing increased cell proliferation, which resulted in a disorganized “grape-like” shape with intact boundary; and right, targeting aberrant Akt/p70S6K activation with Phase I–tested dual inhibitor LY2780301 in ErbB2-transformed hMEC acini drastically suppressed cell proliferation and partially reversed the disorganized acini shape, suggesting that p70S6K may potentially be an effective target for the prevention of ER− breast cancer. See the article by Wang et al. (beginning on page 641) for more information.