### PERSPECTIVE

**Metformin and Cancer Stem Cells: Old Drug, New Targets**  
Filip Bednar and Diane M. Simeone  
*Perspective on Bao et al., p. 355*

### RESEARCH ARTICLES

**Metformin Inhibits Cell Proliferation, Migration and Invasion by Attenuating CSC Function Mediated by Deregulating miRNAs in Pancreatic Cancer Cells**  
*See Perspective on p. 351*

**Genetic Variants Associated with the Risk of Chronic Obstructive Pulmonary Disease with and without Lung Cancer**  
Mariza de Andrade, Yan Li, Randolph S. Marks, Claude Deschamps, Paul D. Scnnlon, Curtis L. Olswold, Ruoxiang Jiang, Stephen J. Swensen, Zhifu Sun, Julie M. Cunningham, Jason A. Wampfler, Andrew H. Limper, David E. Midthun, and Ping Yang

**Epigenetic Differences in Normal Colon Mucosa of Cancer Patients Suggest Altered Dietary Metabolic Pathways**  
Matthew L. Silviera, Brian P. Smith, Jasmine Powell, and Carmen Sapienza

**A Dietary Pattern Associated with LINE-1 Methylation Alters the Risk of Developing Cervical Intraepithelial Neoplasia**  

**Effect of 2-Month Controlled Green Tea Intervention on Lipoprotein Cholesterol, Glucose, and Hormone Levels in Healthy Postmenopausal Women**  
Anna H. Wu, Darcy Spicer, Frank Z. Stanczyk, Chiu-Chen Tseng, Chung S. Yang, and Malcolm C. Pike

**Functional Protein Pathway Activation Mapping of the Progression of Normal Skin to Squamous Cell Carcinoma**  

**Effects of Energy Restriction and Wheel Running on Mammary Carcinogenesis and Host Systemic Factors in a Rat Model**  

**Risk Factors for Malignant Melanoma in White and Non-White/Non–African American Populations: The Multiethnic Cohort**  
Sungshim Lani Park, Loic Le Marchand, Lynne R. Wilkens, Laurence N. Kolonel, Brian E. Henderson, Zuo-Feng Zhang, and Veronica Wendy Setiawan

**Uterine Serous Carcinoma: Increased Familial Risk for Lynch-Associated Malignancies**  

**Immunomodulation of Curcumin on Adoptive Therapy with T Cell Functional Imaging in Mice**  
Ya-Fang Chang, Hui-Yen Chuang, Chien-Hui Hsu, Ren-Shyan Liu, Sanjiv Sam Gambhir, and Jeng-Jong Hwang

**Smoking Attenuates Transforming Growth Factor-β-Mediated Tumor Suppression Function through Downregulation of Smad3 in Lung Cancer**  
Debangshu Samanta, Adriana L. Gonzalez, Nagaraj Nagathihalli, Fei Ye, David P. Carbone, and Pran K. Datta
DNA Methylation of Phosphatase and Actin Regulator 3 Detects Colorectal Cancer in Stool and Complements FIT

Didymine Induces Apoptosis by Inhibiting N-Myc and Upregulating RKIP in Neuroblastoma
Jyotsana Singhal, Lokesh Dalasanur Nagaprashantha, Rit Vatsayanan, Ashutosh, Sanjay Awasthi, and Sharad S. Singhal

ALDH1A1 Is a Novel EZH2 Target Gene in Epithelial Ovarian Cancer Identified by Genome-Wide Approaches
Hua Li, Benjamin G. Biller, Vinod Vathipadiekal, Marie E. Maradeo, Michael Slifker, Caretha L. Creasy, Peter J. Tummino, Paul Cairns, Michael J. Birrer, and Rugang Zhang

Blood Cell Origin of Circulating MicroRNAs: A Cautionary Note for Cancer Biomarker Studies
Colin C. Pritchard, Evan Kroh, Brent Wood, Jason D. Arroyo, Katy J. Dougherty, Melanie M. Miyagi, Jonathan F. Tait, and Muneesh Tewari

CORRECTION


ABOUT THE COVER

Anchorage-independent growth in semisolid medium and the formation of xenografts in immunocompromised mice are generally considered to be informative for assessing human cell tumorigenicity. Long-term treatment with cigarette smoke condensate (CSC) significantly increases (versus DMSO control or no treatment) the anchorage-independent growth of A549 lung adenocarcinoma cells. A549 cells were treated with CSC for 300 days (mimicking long-term cigarette smoking) and were allowed to grow for 14 days in soft agarose. The cover features a phase-contrast micropictogram (40× magnification) of colonies of these cells that do not require a solid substrate for growth, an important characteristic feature of cancer cells. 300-Day CSC treated cells were injected s.c. into athymic nude mice, producing tumors of significantly increased volume (P < 0.001) and rate of development (P < 0.01) at 12 weeks versus injected 300-day DMSO or parental (no-treatment) cells, not shown]. These oncogenic effects were due partly to down-regulation of Smad3. Immortalized bronchial epithelial HPL1A cells, however, did not exhibit similar phenotypes, putatively because these cells may require a longer period of CSC treatment to undergo the additional genetic or epigenetic changes necessary to become tumorigenic. See article by Samanta et al. (beginning on page 453) for more information.