## PERSPECTIVES

### Altered Histology Provides a Positive Clinical Signal in the Bronchial Epithelium

Eva Szabo  
*See article by Keith et al., p. 793*

### Cotargeting Cyclin D1 Starts a New Chapter in Lung Cancer Prevention and Therapy

Edward S. Kim, J. Jack Lee, and Ignacio I. Wistuba  
*See article by Dragnev et al., p. 818*

### Biomarkers in Exploring the Frontiers of Diagnosis, Prognosis, and Therapy of Barrett’s Esophagus

Patrick Yachimski and Richard M. Peek Jr.  
*See article by Sinicrope et al., p. 829*

## COMMENTARY

### Cancer Interception

Elizabeth H. Blackburn  
*See perspective p. 783*

## RESEARCH ARTICLES

### Oral Iloprost Improves Endobronchial Dysplasia in Former Smokers

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### Characterizing the Impact of Smoking and Lung Cancer on the Airway Transcription Using RNA-Seq

Jennifer Beane, Jessica Vick, Frank Schembri, Christina Anderlind, Adam Gower, Joshua Campbell, Lingqi Luo, Xiao Hui Zhang, Ji Xiao, Yurtii O. Akekseyev, Shenglong Wang, Shawn Levy, Pierre P. Massion, Marc Lenburg, and Avrum Spira  
*See perspective p. 775*

### Bexarotene Plus Erlotinib Suppress Lung Carcinogenesis Independent of KRAS Mutations in Two Clinical Trials and Transgenic Models

*See perspective p. 779*

### Evaluation of Difluoromethylornithine for the Chemoprevention of Barrett’s Esophagus and Mucosal Dysplasia

Frank A. Sinicrope, Russell Broadus, Nina Joshi, Eugene Gerner, Elizabeth Half, Ilan Kirsch, Jan Lewin, Bruce Morlan, and Waun Ki Hong  
*See perspective p. 783*

### Hormonal Factors and Risks of Esophageal Squamous Cell Carcinoma and Adenocarcinoma in Postmenopausal Women

Clara Bodelon, Garnet L. Anderson, Mary Anne Rossing, Rowan T. Chlebowski, Heather M. Ochs-Balcom, and Thomas L. Vaughan  
*See perspective p. 783*

### Helicobacter pylori Prevalence and Circulating Micronutrient Levels in a Low-Income United States Population

Meira Epplein, Lisa B. Signorello, Wei Zheng, Quyin Cai, Margaret K. Hargreaves, Angelika Michel, Michael Pavlita, Jay H. Fowke, Pelayo Correa, and William J. Blot  
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Targeting p53-Null Neuroblastomas through RLIP76
Jyotsana Singhal, Sushma Yadav, Lokesh Dalasanur Nagaprashantha, Rit Vatsyayan, Sharad S. Singhal, and Sanjay Awasthi

Results from a Dose–Response Study Using 3,3'-Diindolylmethane in the K14-HPV16 Transgenic Mouse Model: Cervical Histology
Daniel W. Sepkovic, Johann Stein, Antoine D. Carlisle, H. Barbara Ksieski, Karen Auborn, Laura Raucci, Themba Nyirenda, and H. Leon Bradlow

Garlic Constituent Diallyl Trisulfide Suppresses X-linked Inhibitor of Apoptosis Protein in Prostate Cancer Cells in Culture and In Vivo
Su-Hyeong Kim, Ajay Bommareddy, and Shivendra V. Singh

Chemoprevention of Intestinal Polyps in ApcMin/+ Mice Fed with Western or Balanced Diets by Drinking Annurca Apple Polyphenol Extract
Lucia Fini, Giulia Piazzi, Yahya Daoud, Michael Selgrad, Shinji Maegawa, Melissa Garcia, Vincenzo Fogliano, Marco Romano, Giulia Graziani, Paola Vitaglione, Susanne W. Carmack, Antonio Gasbarrini, Robert M. Genta, Jean-Pierre Issa, C. Richard Boland, and Luigi Ricciardiello

Clonal Structure of Carcinogen-Induced Intestinal Tumors in Mice
Andrew T. Thliveris, Linda Clipson, Alanna White, Jesse Waggoner, Lauren Plesh, Bridget L. Skinner, Christopher D. Zahm, Ruth Sullivan, William F. Dove, Michael A. Newton, and Richard B. Halberg

Chemoprevention of Azoxymethane/Dextran Sodium Sulfate–Induced Mouse Colon Carcinogenesis by Freeze-Dried Yam Sanyaku and its Constituent Diosgenin
Noriyuki Miyoshi, Tomoki Nagasawa, Ryota Mabuchi, Yumiko Yasui, Keiji Wakabayashi, Takuji Tanaka, and Hiroshi Ohshima

Melanoma Prevention Using Topical PBISe
Chin-Ying Chung, SubbaRao V. Madhunapantula, Dhimant Desai, Shantu Amin, and Gavin P. Robertson

ABOUT THE COVER
The cover features an image of RNA sequencing (RNA-Seq) results for a processed transcript of the mucin SAC gene (MUC5AC, foreground), a potentially important smoking- and lung cancer–related gene. The output is superimposed on an image of human ciliated columnar bronchial epithelial cells obtained by endoscopic brushings of the mainstem bronchi (100X, modified Wright-Giemsa stain). The MUC5AC read coverage plot displays reads aligning to the transcript normalized by the total number of reads on the y-axis versus the genomic coordinates on the x-axis. The MUC5AC processed transcript shows marked upregulation in healthy current smokers compared with never smokers and downregulation in smokers with lung cancer compared with smokers having benign lung disease. The detection of MUC5AC expression highlights the advantage of RNA-Seq because the transcript is not annotated in RefSeq and there are no probes on the Affymetrix Exon 1.0 ST microarray to interrogate it. RNA-Seq is one of several cutting-edge next-generation sequencing platforms producing tremendous advances in the biology of cancer and premalignancy that promise to lead to new, effective approaches for cancer therapy and prevention. See articles by Beane et al. (beginning on page 803) and Blackburn (beginning on page 787) for more information.