

## COMMENTARY

- 253 | **Gastric Cancer Prevention by Demethylation**  
Barbara G. Schneider and  
Richard M. Peek, Jr.  
*See article, p. 263*

## PERSPECTIVE

- 257 | **Ginger: Is it Ready for Prime Time?**  
Gary D. Stoner  
*See article, p. 271*

## RESEARCH ARTICLES

- 263 | **Prevention of *Helicobacter pylori*-Induced Gastric Cancers in Gerbils by a DNA Demethylating Agent**  
Tohru Niwa, Takeshi Toyoda,  
Tetsuya Tsukamoto, Akiko Mori,  
Masae Tatematsu, and Toshikazu Ushijima  
*See commentary, p. 253*

- 271 | **Effects of Ginger Supplementation on Cell-Cycle Biomarkers in the Normal-Appearing Colonic Mucosa of Patients at Increased Risk for Colorectal Cancer: Results from a Pilot, Randomized, and Controlled Trial**  
Jessica Citronberg, Robert Bostick,  
Thomas Ahearn, D. Kim Turgeon,  
Mack T. Ruffin, Zora Djuric, Ananda Sen,  
Dean E. Brenner, and Suzanna M. Zick  
*See commentary, p. 257*

- 282 | **Caloric Restriction Reverses Obesity-Induced Mammary Gland Inflammation in Mice**  
Priya Bhardwaj, Baoheng Du, Xi Kathy Zhou,  
Erika Sue, Michael D. Harbus,  
Domenick J. Falcone, Dilip Giri,  
Clifford A. Hudis, Levy Kopelovich,  
Kotha Subbaramaiah, and  
Andrew J. Dannenberg

- 290 | **Defining the Role of Histone Deacetylases in the Inhibition of Mammary Carcinogenesis by Dietary Energy Restriction (DER): Effects of Suberoylanilide Hydroxamic Acid (SAHA) and DER in a Rat Model**  
Zongjian Zhu, Weiqin Jiang,  
John N. McGinley, and Henry J. Thompson

- 299 | **Bexarotene Induces Cellular Senescence in MMTV-Neu Mouse Model of Mammary Carcinogenesis**  
Anne Shilkaitis, Laura Bratescu,  
Albert Green, Tohru Yamada, and  
Konstantin Christov

- 309 |  **$\beta$ -Cryptoxanthin Restores Nicotine-Reduced Lung SIRT1 to Normal Levels and Inhibits Nicotine-Promoted Lung Tumorigenesis and Emphysema in A/J Mice**  
Anita R. Iskandar, Chun Liu,  
Donald E. Smith, Kang-Quan Hu,  
Sang-Woon Choi, Lynne M. Ausman, and  
Xiang-Dong Wang

- 321 | **Lipid Metabolism Genes in Contralateral Unaffected Breast and Estrogen Receptor Status of Breast Cancer**  
Jun Wang, Denise Scholtens, Michelle Holko,  
David Ivancic, Oukseub Lee, Hong Hu,  
Robert T. Chatterton Jr., Megan E. Sullivan,  
Nora Hansen, Kevin Bethke, Carola M. Zalles,  
and Seema A. Khan

- 331 | **Combined Serum CA19-9 and miR-27a-3p in Peripheral Blood Mononuclear Cells to Diagnose Pancreatic Cancer**  
Wan-Sheng Wang, Ling-Xiao Liu,  
Guo-Ping Li, Yi Chen, Chang-Yu Li,  
Da-Yong Jin, and Xiao-Lin Wang

- 339 | **The Role of Estrogen Receptor  $\beta$  in Transplacental Cancer Prevention by Indole-3-Carbinol**  
Abby D. Benninghoff and David E. Williams

- 349 | **Inhibition of 15-Hydroxyprostaglandin Dehydrogenase by *Helicobacter pylori* in Human Gastric Carcinogenesis**  
Yeon-Mi Ryu, Seung-Jae Myung,  
Young Soo Park, Dong-Hoon Yang,  
Ho June Song, Jin-Yong Jeong, Sun Mi Lee,  
Miyeoun Song, Do Hoon Kim,  
Hyo-Jeong Lee, Soo-Kyung Park,  
Stephen P. Fink, Sandy D. Markowitz,  
Kee Wook Jung, Kyung-Jo Kim,  
Byong Duk Ye, Jeong-Sik Byeon,  
Hwoon-Yong Jung, Suk-Kyun Yang, and  
Jin-Ho Kim

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360 | **Combined Lifestyle Factors and Risk of Incident Colorectal Cancer in a Chinese Population**  
Andrew O. Odegaard, Woon-Puay Koh, and Jian-Min Yuan

369 | **Allopurinol in Subjects with Colorectal Adenoma—Response**  
Matteo Puntoni and Andrea DeCensi

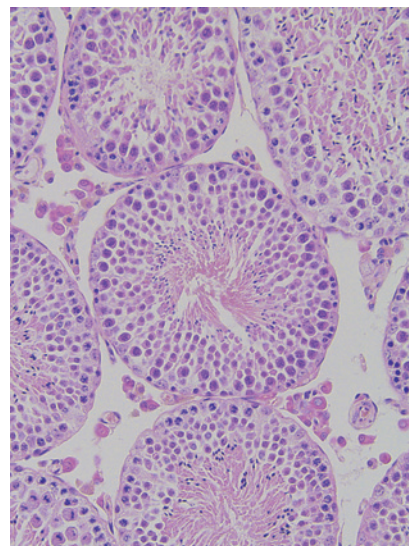
## LETTERS TO THE EDITOR

368 | **Allopurinol in Subjects with Colorectal Adenoma—Letter**  
Nanne K.H. de Boer and Adriaan A. van Bodegraven

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## ABOUT THE COVER

Suppression of aberrant DNA methylation is a novel approach to cancer prevention, but so far the efficacy of the strategy has not been evaluated in cancers associated with chronic inflammation. Gastric cancers (GCs) induced by *Helicobacter pylori* (HP) infection are known to involve aberrant DNA methylation and are associated with severe chronic inflammation in their early stages. Using the DNA demethylating agent 5-aza-2'-deoxycytidine (5-aza-dC), suppression of aberrant DNA methylation to prevent HP-induced GCs was investigated using a Mongolian gerbil model. The incidence of GCs induced by HP infection and N-methyl-N-nitrosourea (MNU) treatment as well as global DNA methylation levels were significantly decreased in gerbils treated with 5-aza-dC (50–55 weeks) compared to vehicle. Extra-gastric tissues were tested to assess adverse effects of 5-aza-dC, which included testicular atrophy. The cover micrograph shows a magnified view of tissue sections of nonatrophied testes in vehicle-treated gerbils. These results show that 5-aza-dC treatment can prevent HP-induced GCs and suggest that removal of induced DNA methylation and/or suppression of DNA methylation induction can become a target for prevention of chronic inflammation-associated cancers. See article by Niwa and colleagues (beginning on page 263) for more information.



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