


COMMENTARIES

- 503** **Toward a Modern Science of Obesity at Washington University: How We Do It and What is the Payoff?**
 Graham A. Colditz, Sarah Gehlert, Deborah J. Bowen, Kenneth Carson, Peter S. Hovmand, Jung Ae Lee, and Kelle H. Moley

- 509** **All Things in Moderation: Prevention of Intestinal Adenomas by DNA Hypomethylation**
 Kwang-Ho Lee and Peter W. Laird
See related article, p. 534

- 512** **Surrogate Markers: Lessons from the Next Gen?**
 Brian J. Reid
See related article, p. 528

REVIEW: MOLECULAR PATHOGENESIS OF
PREMALIGNANCY SERIES


- 518** **Early Events in the Molecular Pathogenesis of Lung Cancer**
 Humam Kadar, Paul Scheet, Ignacio I. Wistuba, and Avrum E. Spira

RESEARCH ARTICLES

- 528** **Clinical Study of Ursodeoxycholic Acid in Barrett's Esophagus Patients**
 Bhaskar Banerjee, Nicholas J. Shaheen, Jessica A. Martinez, Chiu-Hsieh Hsu, Eugene Trowers, Blake A. Gibson, Gary Della'Zanna, Ellen Richmond, and H-H. Sherry Chow
See related article, p. 512

- 534** **DNA Hypomethylation Contributes to Genomic Instability and Intestinal Cancer Initiation**
 Karyn L. Sheaffer, Ellen N. Elliott, and Klaus H. Kaestner
See related article, p. 509

- 547** **Prevention of Carcinogen-Induced Oral Cancer by Sulforaphane**
 Julie E. Bauman, Yan Zang, Malabika Sen, Changyou Li, Lin Wang, Patricia A. Egner, Jed W. Fahey, Daniel P. Normolle, Jennifer R. Grandis, Thomas W. Kensler, and Daniel E. Johnson

- 558** **The Discovery and Validation of Biomarkers for the Diagnosis of Esophageal Squamous Dysplasia and Squamous Cell Carcinoma**
 George Couch, James E. Redman, Lorenz Wernisch, Richard Newton, Shalini Malhotra, Sanford M. Dawsey, Pierre Lao-Sirieix, and Rebecca C. Fitzgerald

- 567** **Isorhapontigenin (ISO) Inhibits Invasive Bladder Cancer Formation *In Vivo* and Human Bladder Cancer Invasion *In Vitro* by Targeting STAT1/FOXO1 Axis**
 Guosong Jiang, Amy D. Wu, Chao Huang, Jiayan Gu, Liping Zhang, Haishan Huang, Xin Liao, Jingxia Li, Dongyun Zhang, Xingruo Zeng, Honglei Jin, Haojie Huang, and Chuanshu Huang

- 581** **The Dose-Response Effects of Aerobic Exercise on Body Composition and Breast Tissue among Women at High Risk for Breast Cancer: A Randomized Trial**
 Justin C. Brown, Despina Kontos, Mitchell D. Schnall, Shandong Wu, and Kathryn H. Schmitz

- 589** **Association between Circulating Vitamin D Metabolites and Fecal Bile Acid Concentrations**
 Elizabeth T. Jacobs, Mark R. Haussler, David S. Alberts, Lindsay N. Kohler, Peter Lance, María Elena Martínez, Denise J. Roe, and Peter W. Jurutka


- 598** **2-Phenethyl Isothiocyanate, *Glutathione S-transferase M1* and *T1* Polymorphisms, and Detoxification of Volatile Organic Carcinogens and Toxicants in Tobacco Smoke**
 Jian-Min Yuan, Sharon E. Murphy, Irina Stepanov, Renwei Wang, Steven G. Carmella, Heather H. Nelson, Dorothy Hatsukami, and Stephen S. Hecht

- 607** **Diallyl Disulfide (DADS), a Constituent of Garlic, Inactivates NF- κ B and Prevents Colitis-Induced Colorectal Cancer by Inhibiting GSK-3 β**
 Shakir M. Saud, Weidong Li, Zane Gray, Matthias S. Matter, Nancy H. Colburn, Matthew R. Young, and Young S. Kim

Table of Contents

- 616** 5MeCDDO Blocks Metabolic Activation but not Progression of Breast, Intestine, and Tongue Cancers. Is Antioxidant Response Element a Prevention Target?
Ronald A. Lubet, Reid Townsend, Margie L. Clapper, M. Margaret Juliana, Vernon E. Steele, David L. McCormick, and Clinton J. Grubbs

- 624** Phospho-Aspirin (MDC-22) Prevents Pancreatic Carcinogenesis in Mice
George Mattheolabakis, Ioannis Papayannis, Jennifer Yang, Brandon M. Vaeth, Ruixue Wang, Jela Bandovic, Nengtai Ouyang, Basil Rigas, and Gerardo G. Mackenzie

 **AC icon indicates Author Choice**
For more information please visit www.aacrjournals.org

ABOUT THE COVER

It has been long known that garlic has medicinal properties and may even reduce the risk of developing certain cancers including those of the gastrointestinal tract. The chemopreventive effects of garlic may be attributed to the anti-inflammatory properties of garlic's sulfur-containing constituents which include diallyl disulfide (DADS). When colorectal cancer cells were treated with DADS, NF κ B nuclear localization and activity were diminished. Interestingly, this effect of DADS on NF κ B suppression was found to be dependent on DADS inhibition of GSK-3 β , a positive regulator of NF κ B. The figure shown on the cover is the soft agar plate (100 mm) in which SW480 colon cancer cells were pre-treated with DADS (5 μ M) plus GSK-3 β activator LY294002 (10 μ M) for 24 hrs. This simultaneous treatment with DADS (5 μ M) and LY294002 (10 μ M) abolished anti-tumorigenic effects of DADS, which suggests that this garlic component inactivates NF κ B by largely inhibiting GSK-3 β . See article by Saud and colleagues (beginning on page 607) for more information.



Cancer Prevention Research

9 (7)

Cancer Prev Res 2016;9:503-634.

Updated version Access the most recent version of this article at:
<http://cancerpreventionresearch.aacrjournals.org/content/9/7>

E-mail alerts [Sign up to receive free email-alerts](#) related to this article or journal.

Reprints and Subscriptions To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions To request permission to re-use all or part of this article, use this link <http://cancerpreventionresearch.aacrjournals.org/content/9/7>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.