Contents

December 2012 • Volume 5 • Number 12

PERSPECTIVES

1337 Expanding the Reach of Cancer Metabolomics
Christian M. Metallo
Perspective on Montrose et al., p. 1358

1341 Difluoromethylornithine: The Proof Is in the Polyamines
Joanne M. Jeter and David S. Alberts
Perspective on Kreul et al., p. 1368

REVIEW

1345 Is There a Link Between Genome-Wide Hypomethylation in Blood and Cancer Risk?
Kevin Brennan and James M. Flanagan

RESEARCH ARTICLES

1358 Metabolic Profiling, a Noninvasive Approach for the Detection of Experimental Colorectal Neoplasia
David C. Montrose, Xi Kathy Zhou, Levy Kopelovich, Rhonda K. Yantiss, Edward D. Karoly, Kotha Subbaramaiah, and Andrew J. Dannenberg
See Perspective on p. 1337

1368 A Phase III Skin Cancer Chemoprevention Study of DFMO: Long-term Follow-up of Skin Cancer Events and Toxicity
Sarah M. Kreul, Tom Havighurst, KyungMann Kim, Eneida A. Mendonça, Gary S. Wood, Stephen Snow, Abbey Borich, Ajit Verma, and Howard H. Bailey
See Perspective on p. 1341

1375 Benign Breast Disease and the Risk of Subsequent Breast Cancer in African American Women
Michele L. Cote, Julie J. Ruterbusch, Bara Alish, Sudeshna Bandyopadhyay, Elizabeth Kim, Bassam Albashiti, Bashar Sharaf Alddeen, Derek C. Radisky, Marlene H. Frost, Daniel W. Visscher, Lynn C. Hartmann, Hind Nassar Warzecha, and Rouba Ali-Femhi

1381 Design and Baseline Characteristics of Participants in a Phase III Randomized Trial of Celecoxib and Selenium for Colorectal Adenoma Prevention

1394 Inhibition of mTOR Suppresses UVB-Induced Keratinocyte Proliferation and Survival
Theresa D. Carr, John DiGiovanni, Christopher J. Lynch, and Lisa M. Shantz

LETTERS TO THE EDITOR

Risk Stratification for Advanced Colorectal Neoplasia—Letter
Paula Berstad, Magnus Løberg, Mette Kalager, Anita Jørgensen, Kjetil Garborg, Hans Kristian Ruud, Michael Bretthauer, and Geir Hoff

Risk Stratification for Advanced Colorectal Neoplasia—Response
Paul C. Schroy III

CORRECTION

Correction: Phase IIa Clinical Trial of Curcumin for the Prevention of Colorectal Neoplasia

Acknowledgment to Reviewers
ABOUT THE COVER

Colorectal cancer is the second leading cause of cancer-related deaths in the United States. Although noninvasive fecal blood tests are widely used for the early detection of colorectal neoplasia, these tests have limited sensitivity and specificity. Metabolomics can be used to identify and quantify small molecules. In this study, metabolic profiling of feces was evaluated as a potential noninvasive approach to identify biomarkers of colorectal carcinogenesis. The cover image shows time-dependent effect size differences in metabolite levels in feces from colon tumor-bearing mice vs. healthy mice. Feces were analyzed three, five, and seven weeks following six weekly injections of azoxymethane, a colon carcinogen, or saline. The levels of fecal metabolites progressively change as tumor burden increases. Metabolomic profiling of feces represents a promising method to noninvasively detect colorectal tumors. See article by Montrose et al. (beginning on page 1358) for more information.