FROM THE EDITOR

In This Issue
Scott M. Lippman

PERSPECTIVES

Metformin and Hepatic Carcinogenesis
Michael Pollak and Ana M. Gonzalez-Angulo
Perspective on Bhalla et al., p. 544

Prevention of Mutagenesis: New Potential Mechanisms of Metformin Action in Neoplastic Cells
Frederic Bost, Issam Ben-Sahra, and Jean-François Tanti
Perspective on Algire et al., p. 536

Diagnosing Lynch Syndrome: More Light at the End of the Tunnel
Randall W. Burt
Perspective on Yurgelun et al., p. 574

Simplifying the Energy Balance Message for Breast Cancer Prevention
Carol J. Fabian
Perspective on Cecchini et al., p. 583

MINIREVIEWS

Obesity and the Risk for Premenopausal and Postmenopausal Breast Cancer
Garnet L. Anderson and Marian L. Neuhouser

Genetic Predisposition to Chronic Obstructive Pulmonary Disease and/or Lung Cancer: Important Considerations When Evaluating Risk
Randa A. El-Zein Robert P. Young, Raewyn J. Hopkins, and Carol J. Etzel

COMMENTARY

The Susan G. Komen for the Cure Tissue Bank at the IU Simon Cancer Center: A Unique Resource for Defining the "Molecular Histology" of the Breast
Mark E. Sherman, Jonine D. Figueroa, Jill E. Henry, Susan E. Clare, Connie Rufenbarger, and Anna Maria Storniolo

RESEARCH ARTICLES

Metformin Reduces Endogenous Reactive Oxygen Species and Associated DNA Damage
Carolyn Algire, Olga Moiseeva, Xavier Deschenes-Simard, Lilian Amrein, Luca Petruccelli, Elena Birman, Benoit Viiolet, Gerardo Ferbeyre, and Michael N. Pollak
See perspective on p. 503

Metformin Prevents Liver Tumorigenesis by Inhibiting Pathways Driving Hepatic Lipogenesis
See perspective on p. 500

Metformin-Mediated Bambi Expression in Hepatic Stellate Cells Induces Prosurvival Wnt/β-Catenin Signaling
Nanthakumar Subramaniam, Mara H. Sherman, Renuka Rao, Caroline Wilson, Sally Coulter, Annette R. Atkins, Ronald M. Evans, Christopher Liddle, and Michael Downes

Metformin Prevents the Development of Oral Squamous Cell Carcinomas from Carcinogen-Induced Premalignant Lesions
Lynn Vitale-Cross, Alfredo A. Molinolo, Daniel Martin, Rania H. Younis, Takashi Maruyama, Vyomesh Patel, Wanjun Chen, Abraham Schneider, and J. Silvio Gutkind

Microsatellite Instability and DNA Mismatch Repair Protein Deficiency in Lynch Syndrome Colorectal Polyps
Matthew B. Yurgelun, Ajay Goel, Jason L. Hornick, Ananda Sen, Danielle Kim Turgeon, Mack T. Ruffin IV, Norman E. Marcon, John A. Baron, Robert S. Bresalier, Sapna Syngal, Dean E. Brenner, C. Richard Boland, and Elena M. Stoffel
See perspective on p. 507
Body Mass Index and the Risk for Developing Invasive Breast Cancer among High-Risk Women in NSABP P-1 and STAR Breast Cancer Prevention Trials
Reena S. Cecchini, Joseph P. Costantino, Jane A. Cauley, Walter M. Cronin, D. Lawrence Wickerham, Stephanie R. Land, Joel L. Weissfeld, and Norman Wolmark
See perspective on p. 511

Carnosol, a Constituent of Zyflamend, Inhibits Aryl Hydrocarbon Receptor–Mediated Activation of CYP1A1 and CYP1B1 Transcription and Mutagenesis
Arash Mohebati, Joseph B. Guttenplan, Amit Kochhar, Zhong-Lin Zhao, Wieslawa Kosinska, Kotha Subbaramaiah, and Andrew J. Dannenberg

Protection of Humans by Plant Glucosinolates: Efficiency of Conversion of Glucosinolates to Isothiocyanates by the Gastrointestinal Microflora
Jed W. Fahey, Scott L. Wehage, W. David Holtzclaw, Thomas W. Kensler, Patricia A. Egner, Theresa A. Shapiro, and Paul Talalay

The Novel Akt Inhibitor API-1 Induces c-FLIP Degradation and Synergizes with TRAIL to Augment Apoptosis Independent of Akt Inhibition
Bo Li, Hui Ren, Ping Yue, Mingwei Chen, Fadl R. Khuri, and Shi-Yong Sun

A Phase 2 Cancer Chemoprevention Biomarker Trial of Isoflavone G-2535 (Genistein) in Presurgical Bladder Cancer Patients
Edward Messing, Jason R. Gee, Daniel R. Saltzstein, KyungMann Kim, Anthony diSaNT’Agnese, Jill Kolesar, Linda Harris, Adrienne Faerber, Thomas Havighurst, Jay M. Young, Mitchell Efros, Robert H. Getzenberg, Marcia A. Wheeler, Joseph Tangrea, Howard Barnes, Margaret House, J. Erik Busby, Raymond Hohl, and Howard Bailey

Cerastrol Suppresses Growth and Induces Apoptosis of Human Hepatocellular Carcinoma through the Modulation of STAT3/JAK2 Signaling Cascade In Vitro and In Vivo
Peramaiyan Rajendran, Feng Li, Muthu K. Shanmugam, Radhamani Kannaiyan, Jen Nee Goh, Kwong Fai Wong, Wei Wang, Ester Khin, Vinay Tergaonkar, Alan Prem Kumar, John M. Luk, and Gautam Sethi

LETTERS TO THE EDITOR

Lung Cancer Risk Prediction to Select Smokers for Screening CT—Letter
Robert P. Young and Raewyn J. Hopkins

Lung Cancer Risk Prediction to Select Smokers for Screening CT—Response
Patrick Maisonneuve, Vincenzo Bagnardi, Massimo Bellomi, and Giulia Veronesi
ABOUT THE COVER

The cover features a micropictogram (80X magnification) of H & E staining of a paraffin-embedded liver section of a mouse that received metformin to reduce or prevent hepatocellular carcinogenesis. Metformin (given as 250 mg/kg of body weight in chow) inhibited hepatocellular carcinogenesis induced by the liver-specific carcinogen diethylnitrosamine (DEN) in C57BL/6 mice. Mice injected with DEN at 2 weeks of age were put on metformin or control chow after weaning. At 24 or 36 weeks post-DEN treatment, liver-tumor multiplicity and size were reduced significantly in metformin-fed versus control-fed mice. Representative H & E sections indicate that the pathology of tumors in metformin-fed (featured on the cover) and control-fed mice (not shown) were similar, despite the decrease in tumor formation. In the cover image, the prominent oval shape at the bottom is a blood vessel in the portal tract (with additional vascular spaces below it). Just above and left of this vessel, a hepatocellular tumor appears as a circular cluster of larger cells with enlarged nuclei and somewhat more basophilic cytoplasm. See articles by Bhalla et al. (beginning on page 544) and by Pollak and Gonzalez-Angulo (beginning on page 500) for more information.