COMMENTARY

969 Urinary PGE-M in Colorectal Cancer: Predicting More than Risk
Karen Colbert Maresso, Eduardo Vilar, and Ernest T. Hawk

REVIEW

973 Convergence of Nanotechnology and Cancer Prevention: Are We There Yet?
David G. Menter, Sherri L. Patterson, Craig D. Logsdon, Scott Kopetz, Anil K. Sood, and Ernest T. Hawk

RESEARCH ARTICLES

993 Breast Cancer Risk in Young Women in the National Breast Screening Programme: Implications for Applying NICE Guidelines for Additional Screening and Chemoprevention
D. Gareth Evans, Adam R. Brentnall, Michelle Harvie, Sarah Dave, Jamie C. Sergeant, Paula Stavrinos, Susan Astley, Mary Wilson, John Ainsworth, Jack Cuzick, Iain Buchan, Louise S. Donnelly, and Anthony Howell

1002 Analysis of DNA Methylation in Bowel Lavage Fluid for Detection of Colorectal Cancer
Taku Harada, Eiichiro Yamamoto, Hiro-o Yamano, Masanori Nojima, Reo Maruyama, Kohei Kumezawa, Masami Ashida, Kenjirou Yoshihara, Tomomi Kimura, Eiji Harada, Ryo Takagi, Yoshito Tanaka, Hironori Aoki, Masayo Nishizono, Michiko Nakaoka, Akhitho Tsuyada, Takeshi Ninomura, Masahiro Kai, Kazuyoshi Shimoda, Yasuhisa Shinomura, Tamotsu Sugai, Kohzoh Inam, and Hiromu Suzuki

1011 Biomarkers for Personalizing Omega-3 Fatty Acid Dosing
Yan Jiang, Zora Djuric, Ananda Sen, Jianwei Ren, Dmitriy Kuklev, Ian Waters, Lili Zhao, Charis L. Uhlson, Yu H. Hong, Robert C. Murphy, Daniel P. Normolle, William L. Smith, and Dean E. Brenner

1023 Molecular Markers of Carcinogenesis for Risk Stratification of Individuals with Colorectal Polyps: A Case–Control Study
Samir Gupta, Han Sun, Sang Yi, Joy Storm, Guanghua Xiao, Bijal A. Balasubramanian, Song Zhang, Raheela Ashfaq, and Don C. Rockey

1035 Widefield Optical Imaging of Changes in Uptake of Glucose and Tissue Extracellular pH in Head and Neck Cancer
Zhen Luo, Melissa N. Loja, D. Greg Farwell, Quang C. Luu, Paul J. Donald, Deborah Amott, Anh Q. Truong, Regina Gandour-Edwards, and Nitin Niti

1045 Progesterone Inhibits Endometrial Cancer Invasiveness by Inhibiting the TGFβ Pathway
Amber A. Bokhari, Laura R. Lee, Dewayne Raboteau, Chad A. Hamilton, George L. Maxwell, Gustavo C. Rodriguez, and Vrij alcohol Syed

1056 Caffeic Acid Directly Targets ERK1/2 to Attenuate Solar UV-Induced Skin Carcinogenesis
Ge Yang, Yang Fu, Margarita Malakhova, Igor Kurinov, Feng Zhu, Ke Yao, Haitao Li, Hanyong Chen, Wei Li, Do Young Lim, Yuqiao Sheng, Ann M. Bode, Ziming Dong, and Zigang Dong
ABOUT THE COVER

Functional and acquired characteristics of the early pre-cancer phenotype are intrinsically different from those of a more advanced anaplastic or invasive malignancy. The biologic conversion of premalignancy to invasive disease is complex and is likely to influence delivery of nanoparticles (grey circles) to tumors. Intraepithelial neoplasia (IEN) are early pre-cancerous lesions (pink cells) that proliferate until the normal basement membrane is breached by cancerous cells (brown cells). Switching on angiogenesis and chronic inflammation involving the accumulation of proinflammatory, stromal, and blood factors can dilate blood vessels and alter pericyte (green cells) behavior. Elevated hypoxia and apoptosis (condensed yellow cells) further increase vessel leakiness. Angiogenic sprouting and tip cell (elongated yellow cells) driven angiogenesis leads to further recruitment of additional cells during the angiogenic switch. See article by Menter and colleagues (beginning on page 973) for more information.