Contents

Perspectives

New, Long-term Insights from the Adenoma Prevention with Celecoxib Trial on a Promising but Troubled Class of Drugs.
Raymond N. DuBois .................................................................................................................................285
Perspective on Bertagnolli et al., p. 310

Mechanisms of Cyclooxygenase-2 Inhibition and Cardiovascular Side Effects—The Plot Thickens.
Lawrence J. Marnett ........................................................................................................................................288
Perspective on Duffield-Lillico et al., p. 322

Targeting Angiogenesis from Premalignancy to Metastases.
Jennifer R. Grandis and Athanassios Argiris ...............................................................................................291
Perspective on Gandhi et al., p. 330

Mechanistic Insights into Reducing the Weight of Breast Cancer.
Stephen D. Hursting ......................................................................................................................................295
Perspective on Jiang et al., p. 345

Cruciferous Vegetable Intake and Cancer Prevention: Role of Nutrigenetics.
Christine B. Ambrosone and Li Tang ...........................................................................................................298
Perspective on Navarro et al., p. 345

Review

Energy Homeostasis and Cancer Prevention: The AMP-Activated Protein Kinase.
Judith R. Fay, Vernon Steele and James A. Crowell ...................................................................................301

Research Articles

Five-Year Efficacy and Safety Analysis of the Adenoma Prevention with Celecoxib Trial.
Monica M. Bertagnolli, Craig J. Eagle, Ann G. Zauber, Mark Redston, Aurora Breazna, KyungMann Kim, Jie Tang, Rebecca B. Rosenstein, Asad Umar, Donya Bagheri, Neal T. Collins, John Burn, Daniel C. Chung, Thomas Dewar, T. Raymond Foley, Neville Hoffman, Finlay Macrae, Ronald E. Pruitt, John R. Saltzman, Bruce Salzberg, Thomas Sylwestrowicz, Ernest T. Hawk and for the Adenoma Prevention with Celecoxib Study Investigators .................................................................................................................................310


Sunitinib Prolongs Survival in Genetically Engineered Mouse Models of Multistep Lung Carcinogenesis. Leena Gandhi, Kate L. McNamara, Danan Li, Christa L. Borgman, Ultan McDermott, Kathryn A. Brandstetter, Robert F. Padera, Lucian R. Chirieac, Jeffrey E. Settleman and Kwok-Kin Wong ...........................................................................................................................................................................330

Effects of Physical Activity and Restricted Energy Intake on Chemically Induced Mammary Carcinogenesis. WeiJin Jiang, ZongJian Zhu and Henry J. Thompson ............................................................................................................................................................................338

Cruciferous Vegetable Feeding Alters UGT1A1 Activity: Diet- and Genotype-Dependent Changes in Serum Bilirubin in a Controlled Feeding Trial. Sandi L. Navarro, Sabrina Peterson, Chu Chen, Karen W. Makar, Yvonne Schwarz, Irena B. King, Shuying S. Li, Lin Li, Mark Kestin and Johanna W. Lampe .................................................................................................................................................................345

About the Cover
The cover features a genetically engineered mouse (GEM; photo courtesy of Takeshi Shimamura). Genetic engineering in mice to conditionally activate oncogenic \textit{Kras} with or without the conditional loss of the tumor suppressor \textit{Lkb1} induces non-small-cell lung carcinogenesis. The \textit{Lkb1/Kras}, \textit{Kras} and other GEM models are valuable tools for preclinical tests of novel agents for the prevention and treatment of lung cancers. \textit{Lkb1/Kras} mice are a novel model of metastatic lung cancer; lung cancer in \textit{Kras} mice does not metastasize. These GEM models provide platforms to assess the impact of targeted agents on angiogenesis and the tumor-microenvironment interaction, which cannot be assessed or recapitulated easily in xenograft or in vitro models. Treatment or chemoprevention studies can be initiated and performed on these mice at specific time points in the genetically engineered oncogenic process. The multi-targeted (e.g., VEGFR) tyrosine kinase inhibitor sunitinib can repress and prevent tumors in both models, although it did not affect metastases in the \textit{Lkb1/Kras} model. See articles by Gandhi \textit{et al.} (beginning on page 330) and Grandis and Argiris (beginning on page 291) for more information.