LETTER FROM THE EDITOR

179 Letter from the Editor

COMMENTARY

182 Targeting Estrogen Receptor-β for the Prevention of Nonmelanoma Skin Cancer
Pei-Li Yao, Frank J. Gonzalez, and Jeffrey M. Peters
See article, p. 186

RESEARCH ARTICLES

186 Erb-041, an Estrogen Receptor-β Agonist, Inhibits Skin Photocarcinogenesis in SKH-1 Hairless Mice by Downregulating the WNT Signaling Pathway
Sandeep C. Chaudhary, Tripti Singh, Sarang S. Talwelkar, Ritesh K. Srivastava, Aadithya Arumugam, Zhiping Weng, Craig A. Elmets, Farrukh Afaq, Levy Kopelovich, and Mohammad Athar
See commentary, p. 182

199 Metformin Selectively Targets Tumor-Initiating Cells in ErbB2-Overexpressing Breast Cancer Models
Pei Zhu, Meghan Davis, Amanda J. Blackwelder, Nora Bachman, Bolin Liu, Susan Edgerton, Leonard L. Williams, Ann D. Thor, and Xiaohe Yang

211 Understanding the Premalignant Potential of Atypical Hyperplasia through Its Natural History: A Longitudinal Cohort Study

218 Impact of Vitamin D Supplementation on Inflammatory Markers in African Americans: Results of a Four-Arm, Randomized, Placebo-Controlled Trial
Paulette D. Chandler, Jamil B. Scott, Bettina F. Drake, Kimmie Ng, JoAnn E. Manson, Nader Rifai, Andrew T. Chan, Gary G. Bennett, Bruce W. Hollis, Edward L. Giovannucci, Karen M. Emmons, and Charles S. Fuchs

226 Serum Glycan Signatures of Gastric Cancer
Sureyya Ozcan, Donald A. Barksas, L. Renee Ruhaak, Javier Torres, Cara L. Cooke, Hyun Joo An, Serenus Hua, Cynthia C. Williams, Lauren M. Dimapasoc, Jae Han Kim, Margarita Camorlinga-Ponce, David Rocke, Carlito B. Lebrilla, and Jay V. Solnick

236 Naproxen Induces Cell-Cycle Arrest and Apoptosis in Human Urinary Bladder Cancer Cell Lines and Chemically Induced Cancers by Targeting PI3K
Mi-Sung Kim, Jong-Eun Kim, Do Young Lim, Zunnam Huang, Hanyong Chen, Alyssa Langfald, Ronald A. Lubet, Clinton J. Grubbs, Zigang Dong, and Ann M. Bode

246 Preventive Effects of NSAIDs, NO-NSAIDs, and NSAIDs Plus Difluoromethylornithine in a Chemically Induced Urinary Bladder Cancer Model
Holly L. Nicastro, Clinton J. Grubbs, M. Margaret Juliana, Ann M. Bode, Mi-Sung Kim, Yan Lu, Ming You, Ginger L. Milne, Daniel Boring, Vernon E. Steele, and Ronald A. Lubet

255 Application of SNP Microarrays to the Genome-Wide Analysis of Chromosomal Instability in Premalignant Airway Lesions
Ichiro Nakachi, Jessica L. Rice, Christopher D. Coldren, Michael G. Edwards, Robert S. Stearman, Steven C. Glidewell, Marileila Varella-Garcia, Wilbur A. Franklin, Robert L. Keith, Marina T. Lewis, Bifeng Gao, Daniel T. Merrick, York E. Miller, and Mark W. Geraci

266 TFAP2A Regulates Nasopharyngeal Carcinoma Growth and Survival by Targeting HIF-1α Signaling Pathway
Dingbo Shi, Fangyun Xie, Yun Zhang, Yun Tian, Wangbing Chen, Lingyi Fu, Jingshu Wang, Wei Guo, Tiebang Kang, Wenlin Huang, and Wuguo Deng
ABOUT THE COVER

Ultraviolet (UV) B radiation (280–320 nm) induces squamous cell carcinoma (SCC) both in human and murine skin. WNT signaling is associated with the pathogenesis of these cancers as well as a decrease in estrogen receptor β (ERβ) expression. Using the SKH-1 hairless mouse model, topical administration of an ERβ-agonist, Erb-041, augments ERβ expression and effectively attenuates UVB-induced skin tumor number, size, and incidence with a concomitant decrease in proliferative (PCNA, cyclin D1) and angiogenic (CD31/VEGF) biomarkers. In SCCs, Erb-041 treatment downregulated the WNT/β-catenin signaling pathway as well as the phosphorylation of PI3K and AKT. The cover immunofluorescent micrograph (40×) depicts the co-localization (yellow) of WNT7b (red) and β-catenin (green) in the plasma membrane of UVB-induced, Erb-041-treated SCCs (nuclei in blue). Erb-041 treatment considerably reduced the nuclear localization of β-catenin in SCCs compared to control (not shown). Results from this study suggest a role of WNT signaling in regulating ERβ-dependent attenuation of tumor proliferation, migration, and invasiveness and that an ERβ-agonist, Erb-041, may be effective in the chemoprevention of non-melanoma skin cancers. See article by Chaudhary and colleagues (beginning on page 186) for more information.
## Cancer Prevention Research

### 7 (2)


<table>
<thead>
<tr>
<th>Updated version</th>
<th>Access the most recent version of this article at: <a href="http://cancerpreventionresearch.aacrjournals.org/content/7/2">http://cancerpreventionresearch.aacrjournals.org/content/7/2</a></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>E-mail alerts</th>
<th>Sign up to receive free email-alerts related to this article or journal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reprints and Subscriptions</td>
<td>To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at <a href="mailto:pubs@aacr.org">pubs@aacr.org</a>.</td>
</tr>
<tr>
<td>Permissions</td>
<td>To request permission to re-use all or part of this article, contact the AACR Publications Department at <a href="mailto:permissions@aacr.org">permissions@aacr.org</a>.</td>
</tr>
</tbody>
</table>