New Directions in Reducing Stress Effects on Cancer
Amal Melhem-Bertrandt and Anil K. Sood
Perspective on Al-Wadei et al., p. 189

A Review of Cancer in U.S. Hispanic Populations

Aspirin in the Chemoprevention of Colorectal Neoplasia: An Overview
Andrew T. Chan, Nadir Arber, John Burn, Whay Kuang Chia, Peter Elwood, Mark A. Hull, Richard F. Logan, Peter M. Rothwell, Karsten Schror, and John A. Baron

Risk Modification of Colorectal Adenoma by CYP7A1 Polymorphisms and the Role of Bile Acid Metabolism in Carcinogenesis
Betsy C. Wertheim, Jeffrey W. Smith, Changming Fang, David S. Alberts, Peter Lance, and Patricia A. Thompson

Curcumin Induces the Differentiation of Myeloid-Derived Suppressor Cells and Inhibits Their Interaction with Cancer Cells and Related Tumor Growth
Shui Ping Tu, Huanyu Jin, Jin Dong Shi, Li Ming Zhu, Ya Suo, Gang Lu, Anna Liu, Timothy C. Wang, and Chung S. Yang

Dietary Fat and Breast Cancer in Postmenopausal Women According to Ethnicity and Hormone Receptor Status: The Multiethnic Cohort Study
Song-Yi Park, Laurence N. Kolonel, Brian E. Henderson, and Lynne R. Wilkens

Progression of Prostate Carcinogenesis and Dietary Methyl Donors: Temporal Dependence
Shabana Shabbeer, Simon A. Williams, Brian W. Simons, James G. Herman, and Michael A. Carducci

Screening Practices of Unaffected People at Familial Risk of Colorectal Cancer
Driss Ait Ouakrim, Alex Boussioutas, Trevor Lockett, Ingrid Winship, Graham G. Giles, Louisa B. Flander, Louise Keogh, John L. Hopper, and Mark A. Jenkins

Modulation of Gene Expression and Cell-Cycle Signaling Pathways by the EGFR Inhibitor Gefitinib (Iressa) in Rat Urinary Bladder Cancer
Yan Lu, Pengyuan Liu, Francoise Van den Bergh, Victoria Zellmer, Michael James, Weidong Wen, Clinton J. Grubbs, Ronald A. Lubet, and Ming You

Selective Antibody Response to Streptococcus gallolyticus Pilus Proteins in Colorectal Cancer Patients
Annemarie Boleij, Rian Roelofs, Camille Danne, Samuel Bellais, Shayanoo Dramsi, Ikuko Kato, and Harold Tjalsma
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>266</td>
<td>Dispersal Evolution in Neoplasms: The Role of Disregulated Metabolism in the Evolution of Cell Motility</td>
<td>C. Athena Aktipis, Carlo C. Maley, and John W. Pepper</td>
</tr>
<tr>
<td>276</td>
<td>Short-Term Biomarker Modulation Prevention Study of Anastrozole in Women at Increased Risk for Second Primary Breast Cancer</td>
<td>Banu Arun, Vicente Valero, Diane Liu, Abenaa Brewster, Marjorie Green, Angelica Gutierrez-Barrera, Ugur Akar, Edgardo Rivera, Francisco J. Esteva, Aman U. Buzdar, Gabriel N. Hortobagyi, and Nour Sneige</td>
</tr>
<tr>
<td>299</td>
<td>Organ Specificity of the Bladder Carcinogen 4-Aminobiphenyl in Inducing DNA Damage and Mutation in Mice</td>
<td>Jae-In Yoon, Sang-In Kim, Stella Tommasi, and Ahmad Besaratinia</td>
</tr>
<tr>
<td>328</td>
<td>Cancer Risks for the Relatives of Colorectal Cancer Cases with a Methylated MLH1 Promoter Region: Data from the Colorectal Cancer Family Registry</td>
<td>A. Joan Levine, Aung Ko Win, Daniel D. Buchanan, Mark A. Jenkins, John A. Baron, Joanne P. Young, Tiffany I. Long, Daniel J. Weisenberger, Peter W. Laird, Rebecca L. McCall, David J. Duggan, and Robert W. Haile</td>
</tr>
<tr>
<td>343</td>
<td>Oral Contraceptives Decrease the Prevalence of Ovarian Cancer in the Hen</td>
<td>Lindsey S. Treviño, Elizabeth L. Buckles, and Patricia A. Johnson</td>
</tr>
</tbody>
</table>
ABOUT THE COVER

The cover image is a screenshot from an experiment used in an agent-based model of ecological dispersal theory applied to neoplastic progression. Resource limitation is an unavoidable consequence of exponential growth and thus a universal limitation on survival and reproduction within ecological systems. Intensive resource use generates competition tending to favor individuals who can escape resource limitation through dispersal. The model (constructed in Netlogo 4.0.2) tested whether high resource use through cell metabolism promotes the evolution of cell motility, in turn selecting for cancer cells with a dispersal phenotype allowing them to find resources in spite of local scarcity. The experiment on the cover introduced metabolically altered “neoplastic” cells (blue borders) into a population of “normal” cells (yellow-green borders). Higher (light red) and lower (dark red) concentrations of microenvironmental resources are reflected in the inter-cell spaces. The consumption, or metabolic, rate is 1.5-fold greater in neoplastic than in normal cells. As shown in this screenshot, an increasing number of neoplastic cells appeared at a middle time point of the experiment, throughout which neoplastic cells (i.e., cells with a higher metabolic rate) evolved higher rates of motility while the motility rate of normal cells remained low (not shown). This work suggests that an evolutionary, ecological framework can provide insights into the transition of benign to invasive and metastatic cells. See article by Aktipis, Maley, and Pepper (beginning on page 266) for more information.
Cancer Prevention Research

5 (2)


Updated version
Access the most recent version of this article at:
http://cancerpreventionresearch.aacrjournals.org/content/5/2

E-mail alerts
Sign up to receive free email-alerts related to this article or journal.

Reprints and Subscriptions
To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions
To request permission to re-use all or part of this article, contact the AACR Publications Department at permissions@aacr.org.