

## BREAKING ADVANCES

- 2999 | **Highlights from Recent  
Cancer Literature**

## FROM THE EDITOR'S CHAIR

- 3003 | **Publishing in Cancer Research**  
George C. Prendergast

## REVIEWS

- 3005 | **Immune Promotion of  
Epithelial-mesenchymal Transition  
and Generation of Breast Cancer  
Stem Cells**  
Jennifer M. Reiman, Keith L. Knutson,  
and Derek C. Radisky
- 3009 | **Cbl-b and Itch: Key Regulators of  
Peripheral T-cell Tolerance**  
K. Venuprasad

## PRIORITY REPORTS

- 3013 | **Genetic Screen Identifies Insulin-like  
Growth Factor Binding Protein 5 as a  
Modulator of Tamoxifen Resistance in  
Breast Cancer**  
Bo Young Ahn, Adam N. Elwi, Byoungchun Lee,  
Diane L.N. Trinh, Alexander C. Klimowicz,  
Annie Yau, Jennifer A. Chan,  
Anthony Magliocco, and Sung-Woo Kim
- 3020 | **Induction of Cancer Cell Death by  
Self-assembling Nanostructures  
Incorporating a Cytotoxic Peptide**  
Stephany M. Standley, Daniel J. Toft,  
Hao Cheng, Stephen Soukasene, Jing Chen,  
Srikumar M. Raja, Vimla Band, Hamid Band,  
Vincent L. Cryns, and Samuel I. Stupp
- 3027 | **A High Molecular Weight  
Melanoma-Associated  
Antigen-Specific Chimeric Antigen  
Receptor Redirects Lymphocytes to  
Target Human Melanomas**  
William R. Burns, Yangbing Zhao,  
Timothy L. Frankel, Christian S. Hinrichs,  
Zhili Zheng, Hui Xu, Steven A. Feldman,  
Soldano Ferrone, Steven A. Rosenberg,  
and Richard A. Morgan

## INTEGRATED SYSTEMS AND TECHNOLOGIES

- 3034 | **Identification of a  
Cholangiocarcinoma-Like  
Gene Expression Trait in  
Hepatocellular Carcinoma**  
Hyun Goo Woo, Jeong-Hoon Lee,  
Jung-Hwan Yoon, Chung Yong Kim,  
Hyo-Suk Lee, Ja June Jang, Nam-Joon Yi,  
Kyung-Suk Suh, Kuhn Uk Lee, Eun Sung Park,  
Snorri S. Thorgeirsson, and Yoon Jun Kim

## MICROENVIRONMENT AND IMMUNOLOGY

- 3042 | **Integrin  $\alpha 4 \beta 1$  Signaling Is Required  
for Lymphangiogenesis and  
Tumor Metastasis**  
Barbara Garmy-Susini, Christie J. Avraamides,  
Michael C. Schmid, Philippe Foubert,  
Lesley G. Ellies, Leo Barnes, Chloe Feral,  
Thalia Papayannopoulou, Andrew Lowy,  
Sarah L. Blair, David Cheresh,  
Mark Ginsberg, and Judith A. Varner
- 3052 | **5-Fluorouracil Selectively Kills  
Tumor-Associated Myeloid-Derived  
Suppressor Cells Resulting in  
Enhanced T Cell-Dependent  
Antitumor Immunity**  
Julie Vincent, Grégoire Mignot,  
Fanny Chalmin, Sylvain Ladoire,  
Mélanie Bruchard, Angélique Chevriaux,  
François Martin, Lionel Apetoh, Cédric Rébé,  
and François Ghiringhelli
- 3062 | **Ectopic Expression of X-Linked  
Lymphocyte-Regulated Protein pMI  
Renders Tumor Cells Resistant  
to Antitumor Immunity**  
Tae Heung Kang, Kyung Hee Noh, Jin Hee Kim,  
Hyun Cheol Bae, Ken Y. Lin, Archana Monie,  
Sara I. Pai, Chien-Fu Hung, T.-C. Wu,  
and Tae Woo Kim

- 3071 **The Connectivity Map Links Iron Regulatory Protein-1-Mediated Inhibition of Hypoxia-Inducible Factor-2 $\alpha$  Translation to the Anti-inflammatory 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J<sub>2</sub>**  
Michael Zimmer, Justin Lamb, Benjamin L. Ebert, Mary Lynch, Christopher Neil, Emmett Schmidt, Todd R. Golub, and Othon Iliopoulos
- 3080 **The c-Jun NH<sub>2</sub>-Terminal Kinase 2 Plays a Dominant Role in Human Epidermal Neoplasia**  
Hengning Ke, Rebecca Harris, Jonathan L. Coloff, Jane Y. Jin, Benjamin Leshin, Paula Miliiani de Marval, Shiyong Tao, Jeffrey C. Rathmell, Russell P. Hall, and Jennifer Y. Zhang
- 3089 **NKX3.1 Activates Cellular Response to DNA Damage**  
Cai Bowen and Edward P. Gelmann
- 3098 **Somatic Hypermethylation of *MSH2* Is a Frequent Event in Lynch Syndrome Colorectal Cancers**  
Takeshi Nagasaka, Jennifer Rhees, Matthias Kloor, Johannes Gebert, Yoshio Naomoto, C. Richard Boland, and Ajay Goel
- 3109 **Downregulation of HtrA1 Promotes Resistance to Anoikis and Peritoneal Dissemination of Ovarian Cancer Cells**  
Xiaoping He, Takayo Ota, Peng Liu, Changqing Su, Jeremy Chien, and Viji Shridhar
- 3119 **MicroRNA-155 Functions as an OncomiR in Breast Cancer by Targeting the *Suppressor of Cytokine Signaling 1* Gene**  
Shuai Jiang, Hong-Wei Zhang, Ming-Hua Lu, Xiao-Hong He, Yong Li, Hua Gu, Mo-Fang Liu, and En-Duo Wang
- 3128 **A Second Genetic Variant on Chromosome 15q24-25.1 Associates with Lung Cancer**  
Pengyuan Liu, Ping Yang, Xifeng Wu, Haris G. Vikis, Yan Lu, Yian Wang, Ann G. Schwartz, Susan M. Pinney, Mariza de Andrade, Adi Gazdar, Colette Gaba, Diptasri Mandal, Juwon Lee, Elena Kupert, Daniela Seminara, John Minna, Joan E. Bailey-Wilson, Margaret Spitz, Christopher I. Amos, Marshall W. Anderson, and Ming You

- 3136 **Immunohistochemical Expression of BRCA1 and Lethal Prostate Cancer**  
Michelangelo Fiorentino, Gregory Judson, Kathryn Penney, Richard Flavin, Jennifer Stark, Christopher Fiore, Katja Fall, Neil Martin, Jing Ma, Jennifer Sinnott, Edward Giovannucci, Meir Stampfer, Howard D. Sesso, Philip W. Kantoff, Stephen Finn, Massimo Loda, and Lorelei Mucci
- 3140 **Oncogenic Role of *miR-483-3p* at the *IGF2/483* Locus**  
Angelo Veronese, Laura Lupini, Jessica Consiglio, Rosa Visone, Manuela Ferracin, Francesca Fornari, Nicola Zanesi, Hansjuerg Alder, Gemma D'Elia, Laura Gramantieri, Luigi Bolondi, Giovanni Lanza, Patrizia Querzoli, Adriano Angioni, Carlo M. Croce, and Massimo Negrini

**PREVENTION AND EPIDEMIOLOGY**

- 3150 **p66<sup>Sbc</sup> Is Indispensable for Phenethyl Isothiocyanate-Induced Apoptosis in Human Prostate Cancer Cells**  
Dong Xiao and Shivendra V. Singh
- 3159 **A Population-Based Prospective Study of Carcinogenic Human Papillomavirus Variant Lineages, Viral Persistence, and Cervical Neoplasia**  
Mark Schiffman, Ana Cecilia Rodriguez, Zigui Chen, Sholom Wacholder, Rolando Herrero, Allan Hildesheim, Rob Desalle, Brian Befano, Kai Yu, Mahboobeh Safaeian, Mark E. Sherman, Jorge Morales, Diego Guillen, Mario Alfaro, Martha Hutchinson, Diane Solomon, Philip E. Castle, and Robert D. Burk
- 3170 **Telomere Length in Prospective and Retrospective Cancer Case-Control Studies**  
Karen A. Pooley, Manjinder S. Sandhu, Jonathan Tyrer, Mitul Shah, Kristy E. Driver, Robert N. Luben, Sheila A. Bingham, Bruce A.J. Ponder, Paul D.P. Pharoah, Kay-Tee Khaw, Douglas F. Easton, and Alison M. Dunning

## THERAPEUTICS, TARGETS, AND CHEMICAL BIOLOGY

- 3177 **Tumor Site-Specific Silencing of *NF-κB p65* by Targeted Hollow Gold Nanosphere-Mediated Photothermal Transfection**  
Wei Lu, Guodong Zhang, Rui Zhang, Leo G. Flores II, Qian Huang, Juri G. Gelovani, and Chun Li
- 3189 **Targeted Inhibition of Replication Protein A Reveals Cytotoxic Activity, Synergy with Chemotherapeutic DNA-Damaging Agents, and Insight into Cellular Function**  
Sarah C. Shuck and John J. Turchi
- 3199 **The Antidepressant Sertraline Inhibits Translation Initiation by Curtailing Mammalian Target of Rapamycin Signaling**  
Chen-Ju Lin, Francis Robert, Rami Sukarieh, Stephen Michnick, and Jerry Pelletier
- 3209 ***In vivo* Cytotoxicity of Type I CD20 Antibodies Critically Depends on Fc Receptor ITAM Signaling**  
Simone de Haij, J.H. Marco Jansen, Peter Boross, Frank J. Beurskens, Jantine E. Bakema, Desiree L. Bos, Anton Martens, J. Sjeff Verbeek, Paul W.H.I. Parren, Jan G.J. van de Winkel, and Jeanette H.W. Leusen
- 3218 **Extracellular Signal-Regulated Kinase 8-Mediated *c-Jun* Phosphorylation Increases Tumorigenesis of Human Colon Cancer**  
Yan-Ming Xu, Feng Zhu, Yong-Yeon Cho, Andria Carper, Cong Peng, Duo Zheng, Ke Yao, Andy T.Y. Lau, Tatyana A. Zykova, Hong-Gyum Kim, Ann M. Bode, and Zigang Dong
- 3228 **Pharmacologic Inhibition of Cyclin-Dependent Kinases 4 and 6 Arrests the Growth of Glioblastoma Multiforme Intracranial Xenografts**  
Karine Michaud, David A. Solomon, Eric Oermann, Jung-Sik Kim, Wei-Zhu Zhong, Michael D. Prados, Tomoko Ozawa, C. David James, and Todd Waldman
- 3239 **ID1 Enhances Docetaxel Cytotoxicity in Prostate Cancer Cells through Inhibition of p21**  
Hao Geng, Brooks L. Rademacher, Janet Pittsenbarger, Chung-Ying Huang, Christopher T. Harvey, Marie C. Lafortune, Anne Myrthue, Mark Garzotto, Peter S. Nelson, Tomasz M. Beer, and David Z. Qian

- 3249 **Molecular Mechanism of Chemoresistance by Astrocyte Elevated Gene-1**  
Byoung Kwon Yoo, Dong Chen, Zhao-zhong Su, Rachel Gredler, Jinsang Yoo, Khalid Shah, Paul B. Fisher, and Devanand Sarkar
- 3259 **Noscapine, a Benzylisoquinoline Alkaloid, Sensitizes Leukemic Cells to Chemotherapeutic Agents and Cytokines by Modulating the *NF-κB* Signaling Pathway**  
Bokyung Sung, Kwang Seok Ahn, and Bharat B. Aggarwal
- 3269 **A Therapeutic Anti-VEGF Antibody with Increased Potency Independent of Pharmacokinetic Half-life**  
Yik Andy Yeung, Xiumin Wu, Arthur E. Reyes II, Jean-Michel Vernes, Samantha Lien, John Lowe, Mauricio Maia, William F. Forrest, Y. Gloria Meng, Lisa A. Damico, Napoleone Ferrara, and Henry B. Lowman

## ENDOCRINOLOGY

- 3278 **Variation in Anastrozole Metabolism and Pharmacodynamics in Women with Early Breast Cancer**  
James N. Ingle, Aman U. Buzdar, Daniel J. Schaid, Matthew P. Goetz, Anthony Batzler, Mark E. Robson, Donald W. Northfelt, Janet E. Olson, Edith A. Perez, Zeruesenay Desta, Randy A. Weintraub, Clark V. Williard, David A. Flockhart, and Richard M. Weinshilboum

## TUMOR AND STEM CELL BIOLOGY

- 3287 **Mammalian Target of Rapamycin Activator RHEB Is Frequently Overexpressed in Human Carcinomas and Is Critical and Sufficient for Skin Epithelial Carcinogenesis**  
Zhi Hong Lu, Mark B. Shvartsman, Andrew Y. Lee, Jenny M. Shao, Mollianne M. Murray, Raleigh D. Kladney, Dong Fan, Stan Krajewski, Gary G. Chiang, Gordon B. Mills, and Jeffrey M. Arbeit
- 3299 **The Chemokine Receptor CXCR7 Is Highly Expressed in Human Glioma Cells and Mediates Antiapoptotic Effects**  
Kirsten Hattermann, Janka Held-Feindt, Ralph Lucius, Susanne Sebens Muerkoster, Mark E.T. Penfold, Thomas J. Schall, and Rolf Mentlein

- 3309 **Aberrant Activation of the Androgen Receptor by NF- $\kappa$ B2/p52 in Prostate Cancer Cells**  
Nagalakshmi Nadiminty, Wei Lou, Meng Sun, Jun Chen, Jiao Yue, Hsing-Jien Kung, Christopher P. Evans, Qinghua Zhou, and Allen C. Gao
- 3320 **Coordination of Centrosome Homeostasis and DNA Repair Is Intact in MCF-7 and Disrupted in MDA-MB 231 Breast Cancer Cells**  
Ilie D. Acu, Tiejun Liu, Kelly Suino-Powell, Steven M. Mooney, Antonino B. D'Assoro, Nicholas Rowland, Alysson R. Muotri, Ricardo G. Correa, Yun Niu, Rajiv Kumar, and Jeffrey L. Salisbury
- 3329 **The Deubiquitinating Enzyme USP17 Is Highly Expressed in Tumor Biopsies, Is Cell Cycle Regulated, and Is Required for G<sub>1</sub>-S Progression**  
Cheryl McFarlane, Alyson A. Kelvin, Michelle de la Vega, Ureshnie Govender, Christopher J. Scott, James F. Burrows, and James A. Johnston
- 3340 **Blockade of CCN6 (WISP3) Activates Growth Factor-Independent Survival and Resistance to Anoikis in Human Mammary Epithelial Cells**  
Wei Huang, Maria E. Gonzalez, Kathy A. Toy, Mousumi Banerjee, and Celina G. Kleer
- 3351 **Cancer Inhibition through Circadian Reprogramming of Tumor Transcriptome with Meal Timing**  
Xiao-Mei Li, Franck Delaunay, Sandrine Dulong, Bruno Claustrat, Sinisa Zampera, Yoshiro Fujii, Michèle Teboul, Jacques Beau, and Francis Lévi
- 3361 **The Bisecting GlcNAc on N-Glycans Inhibits Growth Factor Signaling and Retards Mammary Tumor Progression**  
Yinghui Song, Jason A. Aglipay, Joshua D. Bernstein, Sumanta Goswami, and Pamela Stanley
- 3372 **Rescue of p53 Function by Small-Molecule RITA in Cervical Carcinoma by Blocking E6-Mediated Degradation**  
Carolyn Ying Zhao, Laszlo Szekely, Wenjie Bao, and Galina Selivanova
- 3382 **Common Botanical Compounds Inhibit the Hedgehog Signaling Pathway in Prostate Cancer**  
Anna Ślusarz, Nader S. Shenouda, Mary S. Sakla, Sara K. Drenkhahn, Acharan S. Narula, Ruth S. MacDonald, Cynthia L. Besch-Williford, and Dennis B. Lubahn
- 3391 **Signal Transducers and Activators of Transcription-3 Binding to the Fibroblast Growth Factor Receptor Is Activated by Receptor Amplification**  
Anna A. Dudka, Steve M.M. Sweet, and John K. Heath
- 3402 **The Effect of CXCL12 Processing on CD34<sup>+</sup> Cell Migration in Myeloproliferative Neoplasms**  
Sool Yeon Cho, Mingjiang Xu, John Roboz, Min Lu, John Mascarenhas, and Ronald Hoffman

## LETTERS TO THE EDITOR

- 3411 **Cancer Stem Cells Promote Tumor Vascular Development – Letter**  
Thierry Bonnefoix and Mary Callanan
- 3412 **Cancer Stem Cells Promote Tumor Vascular Development – Response**  
Chris Folkins and Robert S. Kerbel

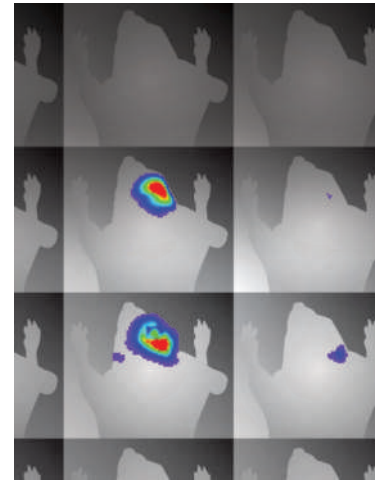
## CORRECTIONS

- 3413 **Correction: Interaction of Developmental Transcription Factor HOXC11 with Steroid Receptor Coactivator SRC-1 Mediates Resistance to Endocrine Therapy in Breast Cancer**
- 3413 **Correction: A Placental Growth Factor Variant Unable to Recognize Vascular Endothelial Growth Factor (VEGF) Receptor-1 Inhibits VEGF-Dependent Tumor Angiogenesis via Heterodimerization**
- 3414 **Correction: Immunotherapeutic Suppression of Indoleamine 2,3-Dioxygenase and Tumor Growth with Ethyl Pyruvate**
- 3414 **Correction: Diallyl Trisulfide Inhibits Phorbol Ester-Induced Tumor Promotion, Activation of AP-1, and Expression of COX-2 in Mouse Skin by Blocking JNK and Akt Signaling**

---

## ABOUT THE COVER

Bioluminescence heat map images of control and PD-0332991 treatment group mice following establishment of intracranial glioblastoma multiforme xenografts from either U87MG or GBM 39 cells. Images were acquired from mice with median luminescence values from each group following either 2 (U87MG) or 4 (GBM 39) weeks of PD-0332991 therapy. For details, see the article by Michaud and colleagues on page 3228 of this issue.



# Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

## 70 (8)

*Cancer Res* 2010;70:2999-3414.

**Updated version** Access the most recent version of this article at:  
<http://cancerres.aacrjournals.org/content/70/8>

**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](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://cancerres.aacrjournals.org/content/70/8>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.