

REVIEWS

- 1277 **Surface Charge: A Key Determinant of Protein Localization and Function**
Neil M. Goldenberg and Benjamin E. Steinberg
- 1281 **Dendritic Cell-Derived Exosomes for Cancer Immunotherapy: What's Next?**
Sophie Viaud, Clotilde Théry, Stéphanie Ploix, Thomas Tursz, Valérie Lapierre, Olivier Lantz, Laurence Zitvogel, and Nathalie Chaput

CLINICAL STUDIES

- 1286 **Variability in the Androgen Response of Prostate Epithelium to 5 α -Reductase Inhibition: Implications for Prostate Cancer Chemoprevention**
Elahe A. Mostaghel, Linda Geng, Ilona Holcomb, Ilsa M. Coleman, Jared Lucas, Lawrence D. True, and Peter S. Nelson

INTEGRATED SYSTEMS AND TECHNOLOGIES

- 1296 **Noninvasive Detection of Target Modulation following Phosphatidylinositol 3-Kinase Inhibition Using Hyperpolarized ¹³C Magnetic Resonance Spectroscopy**
Christopher S. Ward, Humsa S. Venkatesh, Myriam M. Chaumeil, Alissa H. Brandes, Mark VanCriekinge, Hagit Dafni, Subramaniam Sukumar, Sarah J. Nelson, Daniel B. Vigneron, John Kurhanewicz, C. David James, Daphne A. Haas-Kogan, and Sabrina M. Ronen

MICROENVIRONMENT AND IMMUNOLOGY

- 1306 **Cancer Biomarkers Defined by Autoantibody Signatures to Aberrant O-Glycopeptide Epitopes**
Hans H. Wandall, Ola Blixt, Mads A. Tarp, Johannes W. Pedersen, Eric P. Bennett, Ulla Mandel, Govind Ragupathi, Phil O. Livingston, Michael A. Hollingsworth, Joyce Taylor-Papadimitriou, Joy Burchell, and Henrik Clausen

- 1314 **Antiestrogens Induce Transforming Growth Factor β -Mediated Immunosuppression in Breast Cancer**
Christian M. Joffroy, Miriam B. Buck, Matthias B. Stope, Simone L. Popp, Klaus Pfizenmaier, and Cornelius Knabbe

- 1323 **An *Ets2*-Driven Transcriptional Program in Tumor-Associated Macrophages Promotes Tumor Metastasis**
Tahera Zabuawala, David A. Taffany, Sudarshana M. Sharma, Anand Merchant, Brett Adair, Ruchika Srinivasan, Thomas J. Rosol, Soledad Fernandez, Kun Huang, Gustavo Leone, and Michael C. Ostrowski

- 1334 **Vasculogenesis Driven by Bone Marrow-Derived Cells Is Essential for Growth of Ewing's Sarcomas**
Ling Yu, Bing Su, Mario Hollomon, Yong Deng, Valeria Facchinetti, and Eugenie S. Kleinerman

- 1344 **Serologic Markers of Effective Tumor Immunity against Chronic Lymphocytic Leukemia Include Nonmutated B-Cell Antigens**
Ovidiu Marina, Ursula Hainz, Melinda A. Biernacki, Wandi Zhang, Ann Cai, Jonathan S. Duke-Cohan, Fenglong Liu, Vladimir Brusic, Donna Neuberg, Jeffery L. Kutok, Edwin P. Alyea, Christine M. Canning, Robert J. Soiffer, Jerome Ritz, and Catherine J. Wu

MOLECULAR AND CELLULAR PATHOBIOLOGY

- 1356 **The Neurofibromatosis Type 1 Tumor Suppressor Controls Cell Growth by Regulating Signal Transducer and Activator of Transcription-3 Activity *In vitro* and *In vivo***
Sutapa Banerjee, Jonathan N. Byrd, Scott M. Gianino, Scott E. Harpstrite, Fausto J. Rodriguez, Robert G. Tuskan, Karlyne M. Reilly, David R. Piwnica-Worms, and David H. Gutmann

- 1367 **Oncolysis of Prostate Cancers Induced by Vesicular Stomatitis Virus in PTEN Knockout Mice**
Maryam Moussavi, Ladan Fazli, Howard Tearle, Yubin Guo, Michael Cox, John Bell, Christopher Ong, William Jia, and Paul S. Rennie

- 1377 **p53 Is a Direct Transcriptional Target of MYCN in Neuroblastoma**
Lindi Chen, Nunzio Iraci, Samuele Gherardi, Laura D. Gamble, Katrina M. Wood, Giovanni Perini, John Lunec, and Deborah A. Tweddle
- 1389 **Downregulation of Rap1GAP through Epigenetic Silencing and Loss of Heterozygosity Promotes Invasion and Progression of Thyroid Tumors**
Hui Zuo, Manoj Gandhi, Martin M. Edreira, Daniel Hochbaum, Vishwajit L. Nimgaonkar, Ping Zhang, James DiPaola, Viktoria Evdokimova, Daniel L. Altschuler, and Yuri E. Nikiforov
- 1398 **General Transcription Factor Binding at CpG Islands in Normal Cells Correlates with Resistance to *De novo* DNA Methylation in Cancer Cells**
Claudia Gebhard, Chris Benner, Mathias Ehrlich, Lucia Schwarzfischer, Elmar Schilling, Maja Klug, Wolfgang Dietmaier, Christian Thiede, Ernst Holler, Reinhard Andreesen, and Michael Rehli
- 1408 **Genomic and Gene Expression Profiling Defines Indolent Forms of Mantle Cell Lymphoma**
Verónica Fernández, Olga Salamero, Blanca Espinet, Francesc Solé, Cristina Royo, Alba Navarro, Francisca Camacho, Sílvia Beà, Elena Hartmann, Virginia Amador, Luis Hernández, Claudio Agostinelli, Rachel L. Sargent, Maria Rozman, Marta Aymerich, Dolores Colomer, Neus Villamor, Steven H. Swerdlow, Stefano A. Pileri, Francesc Bosch, Miguel A. Piris, Emili Montserrat, German Ott, Andreas Rosenwald, Armando López-Guillermo, Pedro Jares, Sergi Serrano, and Elías Campo
- 1419 **Regulation of p53 Family Member Isoform $\Delta Np63\alpha$ by the Nuclear Factor- κB Targeting Kinase I κB Kinase β**
Aditi Chatterjee, Xiaofei Chang, Tanusree Sen, Rajani Ravi, Atul Bedi, and David Sidransky
- 1430 **Inflammatory Processes Triggered by *Helicobacter pylori* Infection Cause Aberrant DNA Methylation in Gastric Epithelial Cells**
Tohru Niwa, Tetsuya Tsukamoto, Takeshi Toyoda, Akiko Mori, Harunari Tanaka, Takao Maekita, Masao Ichinose, Masae Tatematsu, and Toshikazu Ushijima
- 1441 **A MicroRNA Expression Signature for Cervical Cancer Prognosis**
Xiaoxia Hu, Julie K. Schwarz, James S. Lewis, Jr., Phyllis C. Huettner, Janet S. Rader, Joseph O. Deasy, Perry W. Grigsby, and Xiaowei Wang
- 1449 **Common Genetic Variants Associated with Breast Cancer and Mammographic Density Measures That Predict Disease**
Fabrice Odefrey, Jennifer Stone, Lyle C. Gurrin, Graham B. Byrnes, Carmel Apicella, Gillian S. Dite, Jennifer N. Cawson, Graham G. Giles, Susan A. Treloar, Dallas R. English, John L. Hopper, and Melissa C. Southey, for the Australian Twins and Sisters Mammographic Density Study
- 1459 ***CLOCK* in Breast Tumorigenesis: Genetic, Epigenetic, and Transcriptional Profiling Analyses**
Aaron E. Hoffman, Chun-Hui Yi, Tongzhang Zheng, Richard G. Stevens, Derek Leaderer, Yawei Zhang, Theodore R. Holford, Johnni Hansen, Jennifer Paulson, and Yong Zhu

PREVENTION AND EPIDEMIOLOGY

- 1469 ***NOTCH* Signaling Is Required for Formation and Self-Renewal of Tumor Initiating Cells and for Repression of Secretory Cell Differentiation in Colon Cancer**
Shaheen S. Sikandar, Kira T. Pate, Scott Anderson, Diana Dizon, Robert A. Edwards, Marian L. Waterman, and Steven M. Lipkin
- 1479 **Increased Risk of Colon Cancer Associated with a Genetic Polymorphism of *SMAD7***
Martha L. Slattery, Jennifer Herrick, Karen Curtin, Wade Samowitz, Roger K. Wolff, Bette J. Caan, David Duggan, John D. Potter, and Ulrike Peters
- 1486 ***miR-146a* Suppresses Invasion of Pancreatic Cancer Cells**
Yiwei Li, Timothy G. VandenBoom II, Zhiwei Wang, Dejuan Kong, Shadan Ali, Philip A. Philip, and Fazlul H. Sarkar
- 1496 **Genetic Polymorphisms in Vitamin D Receptor *VDR/RXRA* Influence the Likelihood of Colon Adenoma Recurrence**
Jan B. Egan, Patricia A. Thompson, Erin L. Ashbeck, David V. Conti, David Duggan, Elizabeth Hibler, Peter W. Jurutka, Elizabeth C. LeRoy, María Elena Martínez, David Mount, and Elizabeth T. Jacobs

- 1505 **Tumor Detection by Imaging Proteolytic Activity**
Molly R. Darragh, Eric L. Schneider, Jianlong Lou, Paul J. Phojanakong, Christopher J. Farady, James D. Marks, Byron C. Hann, and Charles S. Craik
- 1513 **Polo-like Kinase 1 (Plk1) as a Novel Drug Target in Chronic Myeloid Leukemia: Overriding Imatinib Resistance with the Plk1 Inhibitor BI 2536**
Karoline V. Gleixner, Veronika Ferenc, Barbara Peter, Alexander Gruze, Renata A. Meyer, Emir Hadzijušufovic, Sabine Cerny-Reiterer, Matthias Mayerhofer, Winfried F. Pickl, Christian Sillaber, and Peter Valent
- 1524 **MK-2461, a Novel Multitargeted Kinase Inhibitor, Preferentially Inhibits the Activated c-Met Receptor**
Bo-Sheng Pan, Grace K.Y. Chan, Melissa Chenard, An Chi, Lenora J. Davis, Sujal V. Deshmukh, Jackson B. Gibbs, Susana Gil, Gaozhen Hang, Harold Hatch, James P. Jewell, Ilona Kariv, Jason D. Katz, Kaiko Kunii, Wei Lu, Bart A. Lutterbach, Cloud P. Paweletz, Xianlu Qu, John F. Reilly, Alexander A. Szewczak, Qinwen Zeng, Nancy E. Kohl, and Christopher J. Dinsmore
- 1534 **Blockade of Tumor Necrosis Factor α Signaling in Tumor-Associated Macrophages as a Radiosensitizing Strategy**
Yuru Meng, Michael A. Beckett, Hua Liang, Helena J. Mauceri, Nico van Rooijen, Kenneth S. Cohen, and Ralph R. Weichselbaum
- 1544 **R428, a Selective Small Molecule Inhibitor of Axl Kinase, Blocks Tumor Spread and Prolongs Survival in Models of Metastatic Breast Cancer**
Sacha J. Holland, Alison Pan, Christian Franci, Yuanming Hu, Betty Chang, Weiqun Li, Matt Duan, Allan Torneros, Jiaxin Yu, Thilo J. Heckrodt, Jing Zhang, Pingyu Ding, Ayodele Apatira, Joanne Chua, Ralf Brandt, Polly Pine, Dane Goff, Rajinder Singh, Donald G. Payan, and Yasumichi Hitoshi
- 1555 **Irreversible Electroporation Therapy in the Liver: Longitudinal Efficacy Studies in a Rat Model of Hepatocellular Carcinoma**
Yang Guo, Yue Zhang, Rachel Klein, Grace M. Nijm, Alan V. Sahakian, Reed A. Omary, Guang-Yu Yang, and Andrew C. Larson
- 1564 **Reduced Levels of IGF-1 Mediate Differential Protection of Normal and Cancer Cells in Response to Fasting and Improve Chemotherapeutic Index**
Changhan Lee, Fernando M. Safdie, Lizzia Raffaghello, Min Wei, Federica Madia, Edoardo Parrella, David Hwang, Pinchas Cohen, Giovanna Bianchi, and Valter D. Longo
- 1573 **The Bioreductive Prodrug PR-104A Is Activated under Aerobic Conditions by Human Aldo-Keto Reductase 1C3**
Christopher P. Guise, Maria R. Abbattista, Rachelle S. Singleton, Samuel D. Holford, Joanna Connolly, Gabi U. Dachs, Stephen B. Fox, Robert Pollock, Justin Harvey, Parry Guilford, Fernando Doñate, William R. Wilson, and Adam V. Patterson
- 1585 **Interaction of Developmental Transcription Factor HOXC11 with Steroid Receptor Coactivator SRC-1 Mediates Resistance to Endocrine Therapy in Breast Cancer**
Marie McLroy, Damian McCartan, Sarah Early, Peadar Ó Gaora, Stephen Pennington, Arnold D.K. Hill, and Leonie S. Young
- 1595 **Efficient Tumor Targeting with High-Affinity Designed Ankyrin Repeat Proteins: Effects of Affinity and Molecular Size**
Christian Zahnd, Martin Kawe, Michael T. Stumpp, Christine de Pasquale, Rastislav Tamaskovic, Gabriela Nagy-Davidescu, Birgit Dreier, Roger Schibli, H. Kaspar Binz, Robert Waibel, and Andreas Plückthun
- 1606 **Identification of EP4 as a Potential Target for the Treatment of Castration-Resistant Prostate Cancer Using a Novel Xenograft Model**
Naoki Terada, Yosuke Shimizu, Tomomi Kamba, Takahiro Inoue, Atsushi Maeno, Takashi Kobayashi, Eijiro Nakamura, Toshiyuki Kamoto, Toshiya Kanaji, Takayuki Maruyama, Yoshiki Mikami, Yoshinobu Toda, Toshiyuki Matsuoka, Yasushi Okuno, Gozoh Tsujimoto, Shuh Narumiya, and Osamu Ogawa
- 1616 **Increased Expression of Annexin A3 Is a Mechanism of Platinum Resistance in Ovarian Cancer**
Xuedong Yan, Jie Yin, Huiyu Yao, Ning Mao, Yili Yang, and Lingya Pan

1625 **Acquired Resistance of Non–Small Cell Lung Cancer Cells to MET Kinase Inhibition Is Mediated by a Switch to Epidermal Growth Factor Receptor Dependency**
Ultan McDermott, Raju V. Pusapati, James G. Christensen, Nathanael S. Gray, and Jeff Settleman

1689 **Epigenetic Downregulation of Mitogen-Activated Protein Kinase Phosphatase MKP-2 Relieves Its Growth Suppressive Activity in Glioma Cells**
Anke Waha, Jörg Felsberg, Wolfgang Hartmann, Anna von dem Knesebeck, Thomas Mikeska, Stefan Joos, Marietta Wolter, Arend Koch, Pearly S. Yan, Elmar Endl, Otmar D. Wiestler, Guido Reifenberger, Torsten Pietsch, and Andreas Waha

TUMOR AND STEM CELL BIOLOGY

1635 **miR-31 Ablates Expression of the HIF Regulatory Factor FIH to Activate the HIF Pathway in Head and Neck Carcinoma**
Chung-Ji Liu, Meng-Miao Tsai, Pei-Shih Hung, Shou-Yen Kao, Tsung-Yun Liu, Kou-Juey Wu, Shih-Hwa Chiou, Shu-Chun Lin, and Kuo-Wei Chang

1645 **Activation of the Integrin Effector Kinase Focal Adhesion Kinase in Cancer Cells Is Regulated by Crosstalk between Protein Kinase C α and the PDZ Adapter Protein mda-9/Syntenin**
Cheol Hwangbo, Jaekyung Kim, Jung Joon Lee, and Jeong-Hyung Lee

1656 **Tumor Suppressor HLJ1 Binds and Functionally Alters Nucleophosmin via Activating Enhancer Binding Protein 2 α Complex Formation**
Tzu-Pei Chang, Sung-Liang Yu, Sheng-Yi Lin, Yi-Jing Hsiao, Gee-Chen Chang, Pan-Chyr Yang, and Jeremy J.W. Chen

1668 **Cell Surface Tetraspanin Tspan8 Contributes to Molecular Pathways of Exosome-Induced Endothelial Cell Activation**
Irina Nazarenko, Sanyukta Rana, Alexandra Baumann, Jessica McAlear, Andrea Hellwig, Michael Trendelenburg, Günter Lochnit, Klaus T. Preissner, and Margot Zöller

1679 **Heterogeneous Nuclear Ribonucleoprotein H Blocks MST2-Mediated Apoptosis in Cancer Cells by Regulating *a-raf* Transcription**
Jens Rauch, Eric O'Neill, Brigitte Mack, Christoph Matthias, Markus Munz, Walter Kolch, and Olivier Gires

1700 **Sensitivity and Acquired Resistance of BRCA1;p53-Deficient Mouse Mammary Tumors to the Topoisomerase I Inhibitor Topotecan**
Serge A.L. Zander, Ariena Kersbergen, Eline van der Burg, Niels de Water, Olaf van Tellingen, Sjöfn Gunnarsdottir, Janneke E. Jaspers, Marina Pajic, Anders O.H. Nygren, Jos Jonkers, Piet Borst, and Sven Rottenberg

1711 **Prolactin Inhibits BCL6 Expression in Breast Cancer through a Stat5a-Dependent Mechanism**
Thai H. Tran, Fransiscus E. Utama, Justin Lin, Ning Yang, Ashley B. Sjolund, Amy Ryder, Kevin J. Johnson, Lynn M. Neilson, Chengbao Liu, Kristin L. Brill, Anne L. Rosenberg, Agnieszka K. Witkiewicz, and Hallgeir Rui

1722 **Transcription Factor KLF11 Integrates Progesterone Receptor Signaling and Proliferation in Uterine Leiomyoma Cells**
Ping Yin, Zhihong Lin, Scott Reierstad, Ju Wu, Hiroshi Ishikawa, Erica E. Marsh, Joy Innes, Youhong Cheng, Kerry Pearson, John Sayler Coon V.J. Julie Kim, Debabrata Chakravarti, and Serdar E. Bulun

1731 **Estrogen Suppresses MLK3-Mediated Apoptosis Sensitivity in ER⁺ Breast Cancer Cells**
Velusamy Ranganamy, Rajakishore Mishra, Suneet Mehrotra, Gautam Sondarva, Rajarshi S. Ray, Arundhati Rao, Malay Chatterjee, Basabi Rana, and Ajay Rana

LETTERS TO THE EDITOR

1741 **Comment re: Intratumoral Immune Reaction in Human Colorectal Cancer**
Frank M. Speetjens and Peter J.K. Kuppen

1741 **In Response.** Matthieu Camus, Franck Pagès, and Jérôme Galon

1742 | **Comment Re: HMGA2 Is a Negative Regulator of DNA-PK Pathway**
Joern Bullerdiek and Birgit Rommel

1742 | **In Response.** Angela Ying-Jian Li and David Kong Ann

1743 | **Comment re: Premenopausal Mammographic Density and Hormone Levels**
Pagona Lagiou, Dimitrios Trichopoulos, and Chung-Cheng Hsieh

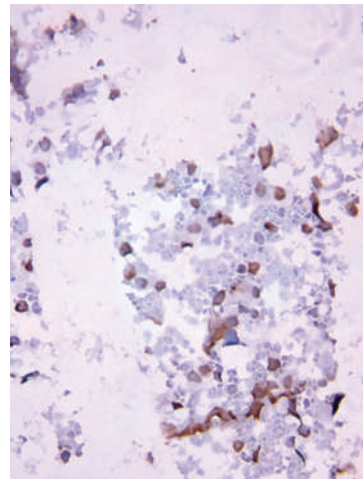
1744 | **In Response.** Kate Walker and Isabel dos Santos Silva

CORRECTION

1746 | **Correction: Online Publication Dates for *Cancer Research* January 1, 2010 Articles**

ABOUT THE COVER

Drug resistance frequently occurs during the endocrine therapy of hormone-responsive breast cancer with antiestrogens. To investigate whether the antiestrogen-mediated induction of transforming growth factor- β (TGF β) in mammary carcinoma could suppress the antitumor-immune response, autologous mixed lymphocyte tumor reactions (MLTR) with breast cancer biopsies were done. Antiestrogen treatment caused a TGF β -dependent decrease of the immune cell-mediated antitumor-response, as seen by less apoptotic tumor cells (terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling assay). For details, see the article by Joffroy and colleagues on page 1314 of this issue.



Cancer Research

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

70 (4)

Cancer Res 2010;70:1277-1748.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/70/4>

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, use this link <http://cancerres.aacrjournals.org/content/70/4>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.