

Cancer Research

A Journal of the American Association for Cancer Research

Volume 69 • Number 16

August 15, 2009 • Pages 6367–6758

Reviews

Unwelcome Complement. Maciej M. Markiewski and John D. Lambris.....6367

Tissue Selectivity in Multiple Endocrine Neoplasia Type 1-Associated Tumorigenesis. Ana Gracanin, Koen M.A. Dreijerink, Rob B. van der Luijt, Cornelis J.M. Lips, and Jo W.M. Höppener6371

Meeting Report

Developmental Origins of Cancer. Kimberly J. Johnson, Nathan M. Springer, Anja-Katrin Bielinsky, David A. Largaespada, and Julie A. Ross.....6375

Perspectives in Cancer Research

Did Experimental Biology Die? Lessons from 30 Years of p53 Research. Shalom Madar, Ido Goldstein, and Varda Rotter.....6378

Priority Report

Functional Restoration of BRCA2 Protein by Secondary BRCA2 Mutations in BRCA2-Mutated Ovarian Carcinoma. Wataru Sakai, Elizabeth M. Swisher, Céline Jacquemont, Kurapaty Venkatapoorna Chandramohan, Fergus J. Couch, Simon P. Langdon, Kaitlyn Wurz, Jake Higgins, Emily Villegas, and Toshiyasu Taniguchi6381

Cell, Tumor, and Stem Cell Biology

Down-regulation of CXCR4 and CD62L in Chronic Lymphocytic Leukemia Cells Is Triggered by B-Cell Receptor Ligation and Associated with Progressive Disease. Amalia Vlad, Pierre-Antoine Deglesne, Rémi Letestu, Stéphane Saint-Georges, Nathalie Chevallier, Fanny Baran-Marszak, Nadine Varin-Blank, Florence Ajchenbaum-Cymbalista, and Dominique Ledoux.....6387

Moderate Increase in *Mdr1a/1b* Expression Causes *In vivo* Resistance to Doxorubicin in a Mouse Model for Hereditary Breast Cancer. Marina Pajic, Jayasree K. Iyer, Ariena Kersbergen, Eline van der Burg, Anders O.H. Nygren, Jos Jonkers, Piet Borst, and Sven Rottenberg6396

Melanoma Proliferation and Chemoresistance Controlled by the DEK Oncogene. Michael S. Khodadoust, Monique Verhaegen, Ferdinand Kappes, Erica Riveiro-Falkenbach, Juan C. Cigudosa, David S.L. Kim, Arul M. Chinnaiyan, David M. Markovitz, and María S. Soengas6405

Proline Oxidase Functions as a Mitochondrial Tumor Suppressor in Human Cancers. Yongmin Liu, Gregory L. Borchert, Steven P. Donald, Bhalchandra A. Diwan, Miriam Anver, and James M. Phang6414

Epigenetic Repression of DNA Mismatch Repair by Inflammation and Hypoxia in Inflammatory Bowel Disease-Associated Colorectal Cancer. Robert A. Edwards, Mavee Witherspoon, Kehui Wang, Kambiz Afrasiabi, Trang Pham, Lutz Birnbaumer, and Steven M. Lipkin.....6423

Sin3B Expression Is Required for Cellular Senescence and Is Up-regulated upon Oncogenic Stress. Kathryn B. Grandinetti, Petar Jelinic, Teresa DiMauro, Jessica Pellegrino, Rubén Fernández Rodríguez, Patricia M. Finnerty, Rachel Ruoff, Nabeel Bardeesy, Susan K. Logan, and Gregory David.....6430

Stress-Activated Mitogen-Activated Protein Kinases c-Jun NH₂-Terminal Kinase and p38 Target Cdc25B for Degradation. Sanae Uchida, Katsuji Yoshioka, Ryoichi Kizu, Hitoshi Nakagama, Tsukasa Matsunaga, Yukihito Ishizaka, Randy Y.C. Poon, and Katsumi Yamashita6438

Nicotine Stimulates PPAR β / δ Expression in Human Lung Carcinoma Cells through Activation of PI3K/mTOR and Suppression of AP-2 α . Xiaojuan Sun, Jeffrey D. Ritzenthaler, XiaoRong Zhong, Ying Zheng, Jesse Roman, and ShouWei Han.....6445

Clinical Research

Nucleophosmin Redistribution following Heat Shock: A Role in Heat-Induced Radiosensitization. Robert P. Vanderwaal, Leonard B. Maggi, Jr., Jason D. Weber, Clayton R. Hunt, and Joseph L. Roti Roti.....6454

Endocrinology

Cell Type-Specific Targeted Mutations of *Kras* and *Pten* Document Proliferation Arrest in Granulosa Cells versus Oncogenic Insult to Ovarian Surface Epithelial Cells. Heng-Yu Fan, Zhilin Liu, Marilene Paquet, Jinrong Wang, John P. Lydon, Francesco J. DeMayo, and JoAnne S. Richards.....6463

GnRH-II Antagonists Induce Apoptosis in Human Endometrial, Ovarian, and Breast Cancer Cells via Activation of Stress-Induced MAPKs p38 and JNK and Proapoptotic Protein Bax. Stefanie Fister, Andreas R. Güntherth, Babette Aicher, Klaus W. Paulini, Günter Emons, and Carsten Gründker.....6473

Epidemiology

Atopic Disease and Risk of Non-Hodgkin Lymphoma: An InterLymph Pooled Analysis. Claire M. Vajdic, Michael O. Falster, Silvia de Sanjose, Otoniel Martínez-Maza, Nikolaus Becker, Paige M. Bracci, Mads Melbye, Karin Ekström Smedby, Eric A. Engels, Jennifer Turner, Paolo Vineis, Adele Seniori Costantini, Elizabeth A. Holly, Eleanor Kane, John J. Spinelli, Carlo La Vecchia, Tongzhang Zheng, Brian C-H. Chiu, Luigino Dal Maso, Pierluigi Cocco, Marc Maynadié, Lenka Foretova, Anthony Staines, Paul Brennan, Scott Davis, Richard Severson, James R. Cerhan, Elizabeth C. Breen, Brenda Birmann, Wendy Cozen, and Andrew E. Grulich6482

Premenopausal Mammographic Density in Relation to Cyclic Variations in Endogenous Sex Hormone Levels, Prolactin, and Insulin-like Growth Factors. Kate Walker, Olivia Fletcher, Nichola Johnson, Ben Coupland, Valerie A. McCormack, Elizabeth Folkard, Lorna Gibson, Stephen G. Hillier, Jeff M. Holly, Sue Moss, Mitchell Dowsett, Julian Peto, and Isabel dos Santos Silva6490

The Decline in U.S. Cancer Mortality in People Born since 1925. Eric J. Kort, Nigel Paneth, and George F. Vande Woude.....6500

Contents (Continued)

Experimental Therapeutics, Molecular Targets, and Chemical Biology

- Follicle-Stimulating Hormone Peptide Can Facilitate Paclitaxel Nanoparticles to Target Ovarian Carcinoma *In vivo*.** Xiao-yan Zhang, Jun Chen, Yu-fang Zheng, Xiao-ling Gao, Yu Kang, Jia-chi Liu, Ming-jun Cheng, Hong Sun, Cong-jian Xu6506
- Sorafenib Inhibits Non-Small Cell Lung Cancer Cell Growth by Targeting B-RAF in *KRAS* Wild-Type Cells and C-RAF in *KRAS* Mutant Cells.** Ken Takezawa, Isamu Okamoto, Kimio Yonesaka, Erina Hatashita, Yuki Yamada, Masahiro Fukuoka, and Kazuhiko Nakagawa6515
- Discovery of BMS-641988, a Novel and Potent Inhibitor of Androgen Receptor Signaling for the Treatment of Prostate Cancer.** Ricardo M. Attar, Maria Jure-Kunkel, Aaron Balog, Mary Ellen Cvijic, Janet Dell-John, Cheryl A. Rizzo, Liang Schweizer, Thomas E. Spires, J. Suso Platero, Mary Obermeier, Weifang Shan, Mark E. Salvati, William R. Foster, Joseph Dinchuk, Shen-Jue Chen, Gregory Vite, Robert Kramer, and Marco M. Gottardis6522
- A Nanoparticle System Specifically Designed to Deliver Short Interfering RNA Inhibits Tumor Growth *In vivo*.** Nobuhiro Yagi, Ichiro Manabe, Tsuneaki Tottori, Atsushi Ishihara, Fusa Ogata, Jong Heon Kim, Satoshi Nishimura, Katsuhito Fujii, Yumiko Oishi, Keiji Itaka, Yasuki Kato, Masahiro Yamauchi, and Ryoza Nagai6531
- Metformin Disrupts Crosstalk between G Protein-Coupled Receptor and Insulin Receptor Signaling Systems and Inhibits Pancreatic Cancer Growth.** Krisztina Kisfalvi, Guido Eibl, James Sinnett-Smith, and Enrique Rozengurt6539
- Proteasome Inhibition Causes Regression of Leukemia and Abrogates BCR-ABL-Induced Evasion of Apoptosis in Part through Regulation of Forkhead Tumor Suppressors.** Zainab Jagani, Keli Song, Jeffery L. Kutok, M. Rajan Dewar, Armelle Melet, Tanya Santos, Alexandra Grassian, Saghi Ghaffari, Catherine Wu, Ruibao Ren, Heather Yeckes Rodin, Kenneth Miller, and Roya Khosravi-Far6546
- Cardiac Glycosides Inhibit p53 Synthesis by a Mechanism Relieved by Src or MAPK Inhibition.** Zhen Wang, Min Zheng, Zhichuan Li, Ruiguo Li, Lijun Jia, Xiufang Xiong, Noel Southall, Shaomeng Wang, Menghang Xia, Christopher P. Austin, Wei Zheng, Zijian Xie, and Yi Sun6556
- Cyclin D1 Degradation Is Sufficient to Induce G₁ Cell Cycle Arrest despite Constitutive Expression of Cyclin E2 in Ovarian Cancer Cells.** Chioniso Patience Masamha and Doris Mangiaracina Benbrook6565
- Small-Molecule Multidrug Resistance-Associated Protein1 Inhibitor Reversan Increases the Therapeutic Index of Chemotherapy in Mouse Models of Neuroblastoma.** Catherine A. Burkhart, Fujiko Watt, Jayne Murray, Marina Pajic, Anatoly Prokvolit, Chengyuan Xue, Claudia Flemming, Janice Smith, Andrei Purmal, Nadezhda Isachenko, Pavel G. Komarov, Katerina V. Gurova, Alan C. Sartorelli, Glenn M. Marshall, Murray D. Norris, Andrei V. Gudkov, and Michelle Haber6573
- Zerubone Enhances TRAIL-Induced Apoptosis through the Induction of Death Receptors in Human Colon Cancer Cells: Evidence for an Essential Role of Reactive Oxygen Species.** Supachai Yodkeeree, Bokyoung Sung, Pornngarm Limtrakul, and Bharat B. Aggarwal6581

Immunology

- The Dendritic Cell-like Functions of IFN-Producing Killer Dendritic Cells Reside in the CD11b⁺ Subset and Are Licensed by Tumor Cells.** Magali Terme, Grégoire Mignot, Evelyn Ullrich, Mathieu Bonmort, Véronique Minard-Colin, Alexandra Jaquet, Joachim L. Schultze, Guido Kroemer, Claude Leclerc, Nathalie Chaput, and Laurence Zitvogel6590

Migratory and Antigen Presentation Functions of IFN-Producing Killer Dendritic Cells. Nourredine Himoudi, Mengyong Yan, Gerben Bouma, Daniel Morgenstern, Rebecca Wallace, Ben Seddon, Jo Buddle, Ayad Eddaoudi, Steven J. Howe, Nichola Cooper, and John Anderson6598

IFN-Producing Killer Dendritic Cells Are Antigen-Presenting Cells Endowed with T-Cell Cross-Priming Capacity. Maria Pletneva, Hongni Fan, Jang-June Park, Vedran Radojicic, Chunfa Jie, Yanxing Yu, Camie Chan, Alec Redwood, Drew Pardoll, and Franck Housseau6607

Antigen Presented by Tumors *In vivo* Determines the Nature of CD8⁺ T-Cell Cytotoxicity. Anil Shanker, Alan D. Brooks, Kristen M. Jacobsen, John W. Wine, Robert H. Wiltrout, Hideo Yagita, and Thomas J. Sayers6615

Molecular Biology, Pathobiology, and Genetics

hCLCA2 Is a p53-Inducible Inhibitor of Breast Cancer Cell Proliferation. Vijay Walia, Ming Ding, Sumit Kumar, Daotai Nie, Louis S. Premkumar, and Randolph C. Elble6624

Deciphering the Impact of Common Genetic Variation on Lung Cancer Risk: A Genome-Wide Association Study. Peter Broderick, Yufei Wang, Jayaram Vijayakrishnan, Athena Matakidou, Margaret R. Spitz, Timothy Eisen, Christopher I. Amos, and Richard S. Houlston6633

Targeting Janus Kinase 2 in Her2/neu-Expressing Mammary Cancer: Implications for Cancer Prevention and Therapy. Kazuhito Sakamoto, Wan-chi Lin, Aleata A. Triplett, and Kay-Uwe Wagner6642

The Peptidyl-Prolyl Isomerase Pin1 Regulates Cytokinesis through Cep55. Armando van der Horst and Kum Kum Khanna6651

Cancer-Specific High-Throughput Annotation of Somatic Mutations: Computational Prediction of Driver Missense Mutations. Hannah Carter, Sining Chen, Leyla Isik, Svitlana Tyekucheva, Victor E. Velculescu, Kenneth W. Kinzler, Bert Vogelstein, and Rachel Karchin6660

Cullin 1 Functions as a Centrosomal Suppressor of Centriole Multiplication by Regulating Polo-like Kinase 4 Protein Levels. Nina Korzeniewski, Leon Zheng, Rolando Cuevas, Joshua Parry, Payel Chatterjee, Brittany Anderton, Anette Duensing, Karl Mürger, and Stefan Duensing6668

Increased Susceptibility to Skin Carcinogenesis in TREX2 Knockout Mice. David Parra, Joan Manils, Bàrbara Castellana, Arnau Viña-Vilaseca, Eva Morán-Salvador, Nuria Vázquez-Villoldo, Gemma Tarancón, Miquel Borràs, Sara Sancho, Carmen Benito, Sagrario Ortega, and Concepció Soler6676

A Loss-of-Function Polymorphism in the Propeptide Domain of the *LOX* Gene and Breast Cancer. Chengyin Min, Ziyang Yu, Kathrin H. Kirsch, Yingshe Zhao, Siddharth R. Vora, Philip C. Trackman, Douglas B. Spicer, Lynn Rosenberg, Julie R. Palmer, and Gail E. Sonenshein6685

Identification of Nectin-4 Oncoprotein as a Diagnostic and Therapeutic Target for Lung Cancer. Atsushi Takano, Nobuhisa Ishikawa, Ryohei Nishino, Ken Masuda, Wataru Yasui, Kouki Inai, Hitoshi Nishimura, Hiroyuki Ito, Haruhiko Nakayama, Yohei Miyagi, Eiju Tsuchiya, Nobuoki Kohno, Yusuke Nakamura, and Yataro Daigo6694

Prevention

Up-regulation of *miR-200* and *let-7* by Natural Agents Leads to the Reversal of Epithelial-to-Mesenchymal Transition in Gemcitabine-Resistant Pancreatic Cancer Cells. Yiwei Li, Timothy G. VandenBoom II, Dejuan Kong, Zhiwei Wang, Shadan Ali, Philip A. Philip, and Fazlul H. Sarkar6704

Contents (Continued)

Systems Biology and Emerging Technologies

Systems Biology Reveals New Strategies for Personalizing Cancer Medicine and Confirms the Role of PTEN in Resistance to Trastuzumab. Dana Faratian, Alexey Goltsov, Galina Lebedeva, Anatoly Sorokin, Stuart Moodie, Peter Mullen, Charlene Kay, In Hwa Um, Simon Langdon, Igor Goryanin, and David J. Harrison.....6713

Tumor Microenvironment

Endothelial Cell Migration and Vascular Endothelial Growth Factor Expression Are the Result of Loss of Breast Tissue Polarity. Amy Chen, Ileana Cuevas, Paraic A. Kenny, Hiroshi Miyake, Kimberley Mace, Cyrus Ghajar, Aaron Boudreau, Mina Bissell, and Nancy Boudreau.....6721

Overexpression of Protease-Activated Receptor-1 Contributes to Melanoma Metastasis via Regulation of Connexin 43. Gabriel J. Villares, Andrey S. Dobroff, Hua Wang, Maya Zigler, Vladislava O. Melnikova, Li Huang, and Menashe Bar-Eli6730

β_3 Integrin Subunit Mediates the Bone-Resorbing Function Exerted by Cultured Myeloma Plasma Cells. Marco Tucci, Raffaele De Palma, Lucia Lombardi, Gabriella Rodolico, Liberato Berrino, Franco Dammacco, and Franco Silvestris.....6738

Osteoclast-Derived Matrix Metalloproteinase-7, but Not Matrix Metalloproteinase-9, Contributes to Tumor-Induced Osteolysis. Sophie Thiolloy, Jennifer Halpern, Ginger E. Holt, Herbert S. Schwartz, Gregory R. Mundy, Lynn M. Matrisian, and Conor C. Lynch6747

Letters to the Editor

Comment Re: Vitamin E Transport Gene Variants and Prostate Cancer. Jean-Marc Zingg and Angelo Azzi.....6756

In Response. Margaret E. Wright and Demetrius Albanes6756

Corrections

Correction: AACR Centennial Series Article on Landmarks in the History of Cancer Epidemiology.....6758

Correction: Article on miR-196a-2 in Breast Tumorigenesis6758

Correction: Article on Nimotuzumab Blocks the EGFR by a Novel Mechanism6758

Cancer Research

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

69 (16)

Cancer Res 2009;69:6367-6758.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/69/16>

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/69/16>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.