

Cancer Research

A Journal of the American Association for Cancer Research

Volume 67 • Number 3

February 1, 2007 • Pages 847–1406

Reviews

Breast Cancer: Should Gastrointestinal Bacteria Be on Our Radar Screen? Varada P. Rao, Theofilos Poutahidis, James G. Fox, and Susan E. Erdman847

Therapy-Induced Tumor Immunosurveillance Involves IFN-Producing Killer Dendritic Cells. Evelyn Ullrich, Mathieu Bonmort, Grégoire Mignot, Nathalie Chaput, Julien Taieb, Cédric Ménard, Sophie Viaud, Thomas Tursz, Guido Kroemer, and Laurence Zitvogel851

Intermittent Hypoxia Furthers the Rationale for Hypoxia-Inducible Factor-1 Targeting. Mark W. Dewhirst854

Perspectives in Cancer Research

A Look Inside the National Cancer Institute Budget Process: Implications for 2007 and Beyond. John E. Niederhuber856

Priority Reports

Spontaneous Development of Liver Tumors in the Absence of the Bile Acid Receptor Farnesoid X Receptor. Fan Yang, Xiongfei Huang, Tangsheng Yi, Yun Yen, David D. Moore, and Wendong Huang863

Risks for Familial and Contralateral Breast Cancer Interact Multiplicatively and Cause a High Risk. Kari Hemminki, Jianguang Ji, and Asta Försti868

Establishment of a New Interleukin-6 (IL-6) Receptor Inhibitor Applicable to the Gene Therapy for IL-6-Dependent Tumor. Naoko Yoshio-Hoshino, Yasuo Adachi, Chieko Aoki, Alexander Pereboev, David T. Curiel, and Norihiro Nishimoto871

Changes in DNA Methylation Patterns in Subjects Exposed to Low-Dose Benzene. Valentina Bollati, Andrea Baccarelli, Lifang Hou, Matteo Bonzini, Silvia Fustinoni, Domenico Cavallo, Hyang-Min Byun, Jiayi Jiang, Barbara Marinelli, Angela C. Pesatori, Pier A. Bertazzi, and Allen S. Yang876

Molecular Biology, Pathobiology, and Genetics

Hematopoietic Prostaglandin D Synthase Suppresses Intestinal Adenomas in *Apc*^{Min/+} Mice. Jae Man Park, Yoshihide Kanaoka, Naomi Eguchi, Kosuke Aritake, Sava Grujic, Alicia M. Mater, Virgilio S. Buslon, Brigitte L. Tippin, Alan M. Kwong, Eduardo Salido, Samuel W. French, Yoshihiro Urade, and Henry J. Lin881

Distinct Genetic Signatures among Pilocytic Astrocytomas Relate to Their Brain Region Origin. Mukesh K. Sharma, David B. Mansur, Guido Reifenberger, Arie Perry, Jeffrey R. Leonard, Kenneth D. Aldape, Meredith G. Albin, Ryan J. Emmett, Simon Loeser, Mark A. Watson, Rakesh Nagarajan, and David H. Gutmann890

Tbx3 Is a Downstream Target of the Wnt/ β -Catenin Pathway and a Critical Mediator of β -Catenin Survival Functions in Liver Cancer. Claire-Angélique Renard, Charlotte Labalette, Carolina Armengol, Delphine Cougot, Yu Wei, Stefano Cairo, Pascal Pineau, Christine Neuveut, Aurélien de Reyniès, Anne Dejean, Christine Perret, and Marie-Annick Buendia901

Ku70 and Poly(ADP-Ribose) Polymerase-1 Competitively Regulate β -Catenin and T-Cell Factor-4-Mediated Gene Transactivation: Possible Linkage of DNA Damage Recognition and Wnt Signaling. Masashi Idogawa, Mitsuko Masutani, Miki Shitashige, Kazufumi Honda, Takashi Tokino, Yasuhisa Shinomura, Kohzoh Imai, Setsuo Hirohashi, and Teshi Yamada911

TFE3 Fusions Activate MET Signaling by Transcriptional Up-regulation, Defining Another Class of Tumors as Candidates for Therapeutic MET Inhibition. Masumi Tsuda, Ian J. Davis, Pedram Argani, Neerav Shukla, Gael G. McGill, Makoto Nagai, Tsuyoshi Saito, Marick Laé, David E. Fisher, and Marc Ladanyi919

Demethylation-Linked Activation of Urokinase Plasminogen Activator Is Involved in Progression of Prostate Cancer. Sai Murali Krishna Pulkuri, Norman Estes, Jitendra Patel, and Jasti S. Rao930

5-Fluorouracil Incorporated into DNA Is Excised by the Smug1 DNA Glycosylase to Reduce Drug Cytotoxicity. Qian An, Peter Robins, Tomas Lindahl, and Deborah E. Barnes940

Endogenous Cytosine Damage Products Alter the Site Selectivity of Human DNA Maintenance Methyltransferase DNMT1. Victoria Valinluck and Lawrence C. Sowers946

BRCA1 Ubiquitinates RPB8 in Response to DNA Damage. Wenwen Wu, Hiroyuki Nishikawa, Ryosuke Hayami, Ko Sato, Akeri Honda, Satoko Aratani, Toshihiro Nakajima, Mamoru Fukuda, and Tomohiko Ohta951

***Pten* Loss in the Mouse Thyroid Causes Goiter and Follicular Adenomas: Insights into Thyroid Function and Cowden Disease Pathogenesis.** Nicole Yeager, Andres Klein-Szanto, Shioko Kimura, and Antonio Di Cristofano959

The Androgen Receptor Negatively Regulates the Expression of c-Met: Implications for a Novel Mechanism of Prostate Cancer Progression. Meletios Verras, Jane Lee, Hui Xue, Tzu-Huey Li, Yuzhuo Wang, and Zijie Sun967

Differential Patterns of MicroRNA Expression in Neuroblastoma Are Correlated with Prognosis, Differentiation, and Apoptosis. Yongxin Chen and Raymond L. Stallings976

Deregulated CDC25A Expression Promotes Mammary Tumorigenesis with Genomic Instability. Dipankar Ray, Yasuhisa Terao, Peter G. Fuhrken, Zhi-Qing Ma, Francesco J. DeMayo, Konstantin Christov, Nyla A. Heerema, Roberta Franks, Sophia Y. Tsai, Eleftherios T. Papoutsakis, and Hiroaki Kiyokawa984

Methylation-Independent Silencing of the Tumor Suppressor *INK4b* (p15) by CBF β -SMMHC in Acute Myelogenous Leukemia with *inv*(16). Jan Markus, Matthew T. Garin, Juraj Bies, Naomi Galili, Azra Raza, Michael J. Thirman, Michelle M. Le Beau, Janet D. Rowley, P. Paul Liu, and Linda Wolff992

Molecular and Cytogenetical Alterations Induced by Environmental Cigarette Smoke in Mice Heterozygous for *Fhit*. Silvio De Flora, Francesco D'Agostini, Alberto Izzotti, Nicola Zanesi, Carlo M. Croce, and Roumen Balansky1001

Contents (*Continued*)

Cell, Tumor, and Stem Cell Biology

Transforming Growth Factor- β , Estrogen, and Progesterone Converge on the Regulation of p27^{Kip1} in the Normal and Malignant Endometrium. Jon Lecanda, Trilok V. Parekh, Patricia Gama, Ke Lin, Vladimir Liarski, Seth Uretsky, Khush Mittal, and Leslie I. Gold1007

Knockdown of XAB2 Enhances All-Trans Retinoic Acid–Induced Cellular Differentiation in All-Trans Retinoic Acid–Sensitive and –Resistant Cancer Cells. Kumiko Ohnuma-Ishikawa, Tomohiro Morio, Takayuki Yamada, Yuji Sugawara, Makoto Ono, Masayuki Nagasawa, Akio Yasuda, Chikao Morimoto, Kei Ohnuma, Nam H. Dang, Hajime Hosoi, Eric Verdin, and Shuki Mizutani.....1019

Identification of Pancreatic Cancer Stem Cells. Chenwei Li, David G. Heidt, Piero Dalerba, Charles F. Burant, Lanjing Zhang, Volkan Adsay, Max Wicha, Michael F. Clarke, and Diane M. Simeone1030

Colon Cancer Cell–Derived Tumor Necrosis Factor- α Mediates the Tumor Growth–Promoting Response in Macrophages by Up-regulating the Colony-Stimulating Factor-1 Pathway. Karin Zins, Dietmar Abraham, Mouldy Sioud, and Seyedhossein Aharinejad.....1038

Extracellular Signal-Related Kinase Positively Regulates Ataxia Telangiectasia Mutated, Homologous Recombination Repair, and the DNA Damage Response. Sarah E. Golding, Elizabeth Rosenberg, Steven Neill, Paul Dent, Lawrence F. Povirk, and Kristoffer Valerie.....1046

RASSF1C, an Isoform of the Tumor Suppressor RASSF1A, Promotes the Accumulation of β -Catenin by Interacting with β TrCP. Emilie Estrabaud, Irina Lassot, Guillaume Blot, Erwann Le Rouzic, Valérie Tanchou, Eric Quemeneur, Laurent Daviet, Florence Margottin-Goguet, and Richard Benarous.....1054

Interleukin-1 β –Driven Inflammation Promotes the Development and Invasiveness of Chemical Carcinogen–Induced Tumors. Yakov Krelin, Elena Voronov, Shahar Dotan, Moshe Elkabets, Eli Reich, Mina Fogel, Monika Huszar, Yoichiro Iwakura, Shraga Segal, Charles A. Dinarello, and Ron N. Apte1062

Human T-Cell Leukemia Virus Oncoprotein Tax Represses Nuclear Receptor–Dependent Transcription by Targeting Coactivator TAX1BP1. King-Tung Chin, Abel C.S. Chun, Yick-Pang Ching, Kuan-Teh Jeang, and Dong-Yan Jin1072

Protein Phosphatase-1 α Regulates Centrosome Splitting through Nek2. Jun Mi, Changyue Guo, David L. Brautigam, and James M. Larner1082

The Type III Transforming Growth Factor- β Receptor as a Novel Tumor Suppressor Gene in Prostate Cancer. Ryan S. Turley, Elizabeth C. Finger, Nadine Hempel, Tam How, Timothy A. Fields, and Gerard C. Blobe1090

Targeted and Nontargeted Effects of Low-Dose Ionizing Radiation on Delayed Genomic Instability in Human Cells. Lei Huang, Perry M. Kim, Jac A. Nickoloff, and William F. Morgan1099

The Tumor Suppressor Activity of the Lysyl Oxidase Propeptide Reverses the Invasive Phenotype of Her-2/neu–Driven Breast Cancer. Chengyin Min, Kathrin H. Kirsch, Yingshe Zhao, Sébastien Jeay, Amitha H. Palamakumbura, Philip C. Trackman, and Gail E. Sonenshein1105

Growth Factor Stimulation Reduces Residual Quiescent Chronic Myelogenous Leukemia Progenitors Remaining after Imatinib Treatment. Melissa Holtz, Stephen J. Forman, and Ravi Bhatia.....1113

Antiadhesive Effects of GRN163L—An Oligonucleotide N3'→P5' Thio-Phosphoramidate Targeting Telomerase. Shalmita R. Jackson, Chun-Hong Zhu, Vera Paulson, Linda Watkins, Z. Gunnur Dikmen, Sergei M. Gryaznov, Woodring E. Wright, and Jerry W. Shay.....1121

Ability to Acquire Drug Resistance Arises Early during the Tumorigenesis Process. Ernesto Yagüe, Ana Arance, Loïc Kubitzka, Michael O'Hare, Parmjit Jat, Caroline M. Ogilvie, Ian R. Hart, Christopher F. Higgins, and Selina Raguz.....1130

Experimental Therapeutics, Molecular Targets, and Chemical Biology

***In vivo* Real-time Tracking of Single Quantum Dots Conjugated with Monoclonal Anti-HER2 Antibody in Tumors of Mice.** Hiroshi Tada, Hideo Higuchi, Tomonobu M. Wanatabe, and Noriaki Ohuchi1138

Prevention of Mantle Lymphoma Tumor Establishment by Routing Transferrin Receptor toward Lysosomal Compartments. Yves Lepelletier, Valérie Camara-Clayette, Hulin Jin, Aurélie Hermant, Séverine Coulon, Michaël Dussiot, Michelle Arcos-Fajardo, Cédric Baude, Danielle Canionni, Richard Delarue, Nicole Brousse, Philippe Benaroch, Marc Benhamou, Vincent Ribrag, Renato C. Monteiro, Ivan C. Moura, and Olivier Hermine.....1145

Insulin-like Growth Factor-I Receptor Signaling Blockade Combined with Radiation. Gregory W. Allen, Corey Saba, Eric A. Armstrong, Shyh-Min Huang, Sergio Benavente, Dale L. Ludwig, Daniel J. Hicklin, and Paul M. Harari1155

p53 Enhances Gefitinib-Induced Growth Inhibition and Apoptosis by Regulation of Fas in Non–Small Cell Lung Cancer. Jin Kyung Rho, Yun Jung Choi, Baek-Yeol Ryoo, Im II Na, Sung Hyun Yang, Cheol Hyeon Kim, and Jae Cheol Lee.....1163

Lapatinib Antitumor Activity Is Not Dependent upon Phosphatase and Tensin Homologue Deleted on Chromosome 10 in ErbB2-Overexpressing Breast Cancers. Wenle Xia, Intisar Husain, Leihua Liu, Sarah Bacus, Shermini Saini, Janice Spohn, Karen Pry, Ron Westlund, Steven H. Stein, and Neil L. Spector1170

Influence of Bcl-2 Family Members on the Cellular Response of Small-Cell Lung Cancer Cell Lines to ABT-737. Stephen K. Tahir, Xiufen Yang, Mark G. Anderson, Susan E. Morgan-Lappe, Aparna V. Sarthy, Jun Chen, Robert B. Warner, Shi-Chung Ng, Stephen W. Fesik, Steve W. Elmore, Saul H. Rosenberg, and Christin Tse.....1176

A Single-Chain Fv Diabody against Human Leukocyte Antigen-A Molecules Specifically Induces Myeloma Cell Death in the Bone Marrow Environment. Etsuko Sekimoto, Shuji Ozaki, Takashi Ohshima, Hironobu Shibata, Toshihiro Hashimoto, Masahiro Abe, Naoki Kimura, Kunihiko Hattori, Shigeto Kawai, Yasuko Kinoshita, Hisafumi Yamada-Okabe, Masayuki Tsuchiya, and Toshio Matsumoto1184

Bcl-2 Protects Endothelial Cells against γ -Radiation via a Raf-MEK-ERK-Survivin Signaling Pathway That Is Independent of Cytochrome c Release. Pawan Kumar, Ila K. Coltas, Bhavna Kumar, Douglas B. Chepeha, Carol R. Bradford, and Peter J. Polverini1193

Evidence that Tumor Necrosis Factor–Related Apoptosis-Inducing Ligand Induction by 5-Aza-2'-Deoxycytidine Sensitizes Human Breast Cancer Cells to Adriamycin. Jing Xu, Jun-Ying Zhou, Michael A. Tainsky, and Gen Sheng Wu.....1203

Sensitizing Effect of Galectin-7 in Urothelial Cancer to Cisplatin through the Accumulation of Intracellular Reactive Oxygen Species. Yoshiyuki Matsui, Shugo Ueda, Jun Watanabe, Ichiro Kuwabara, Osamu Ogawa, and Hiroyuki Nishiyama.....1212

HIV Protease Inhibitor Nelfinavir Inhibits Growth of Human Melanoma Cells by Induction of Cell Cycle Arrest. Wei Jiang, Peter J. Mikočik, Jin H. Ra, Hanqin Lei, Keith T. Flaherty, Jeffrey D. Winkler, and Francis R. Spitz1221

Contents (*Continued*)

Erlotinib Directly Inhibits HER2 Kinase Activation and Downstream Signaling Events in Intact Cells Lacking Epidermal Growth Factor Receptor Expression. Gabriele Schaefer, Lihua Shao, Klara Totpal, and Robert W. Akita1228

TSP50 Encodes a Testis-Specific Protease and Is Negatively Regulated by p53. Haopeng Xu, Jidong Shan, Vladimir Jurukovski, Liming Yuan, Jianhua Li, and Kegui Tian1239

Low-Dose Irradiation of Nontransformed Cells Stimulates the Selective Removal of Precancerous Cells via Intercellular Induction of Apoptosis. Daniel I. Portess, Georg Bauer, Mark A. Hill, and Peter O'Neill1246

A Small-Molecule Enhancer of Signal Transducer and Activator of Transcription 1 Transcriptional Activity Accentuates the Antiproliferative Effects of IFN- γ in Human Cancer Cells. Rebecca A. Lynch, Julia Etchin, Traci E. Battle, and David A. Frank1254

Inhibition of Fatty Acid Synthase Induces Endoplasmic Reticulum Stress in Tumor Cells. Joy L. Little, Frances B. Wheeler, Diane R. Fels, Constantinos Koumenis, and Steven J. Kridel1262

Development of Rituximab-Resistant Lymphoma Clones with Altered Cell Signaling and Cross-Resistance to Chemotherapy. Ali R. Jazirehi, Mario I. Vega, and Benjamin Bonavida1270

Tamoxifen Induces Oxidative Stress and Mitochondrial Apoptosis via Stimulating Mitochondrial Nitric Oxide Synthase. Rafal R. Nazarewicz, Woineshet J. Zenebe, Arti Parihar, Sarah K. Larson, Enver Alidema, Jiho Choi, and Pedram Ghafourifar1282

Depleting Intratumoral CD4⁺CD25⁺ Regulatory T Cells via FasL Protein Transfer Enhances the Therapeutic Efficacy of Adoptive T Cell Transfer. Aoshuang Chen, Shanrong Liu, David Park, Youmin Kang, and Guoxing Zheng1291

Modulation of Telomerase Promoter Tumor Selectivity in the Context of Oncolytic Adenoviruses. Alan E. Bilsland, Andrew Merron, Georges Vassaux, and W. Nicol Keith1299

Immunology

p53 Short Peptide (p53pep164) Regulates Lipopolysaccharide-Induced Tumor Necrosis Factor- α Factor/Cytokine Expression. Xiaoren Tang, Manuel Molina, and Salomon Amar1308

DNAX Accessory Molecule-1 Mediated Recognition of Freshly Isolated Ovarian Carcinoma by Resting Natural Killer Cells. Mattias Carlsten, Niklas K. Björkström, Håkan Norell, Yenan Bryceson, Thorbald van Hall, Bettina C. Baumann, Mikael Hanson, Kjell Schedvins, Rolf Kiessling, Hans-Gustaf Ljunggren, and Karl-Johan Malmberg1317

Peptide Vaccine Given with a Toll-Like Receptor Agonist Is Effective for the Treatment and Prevention of Spontaneous Breast Tumors. Pilar Nava-Parada, Guido Forni, Keith L. Knutson, Larry R. Pease, and Esteban Celis1326

Microscopic Intratumoral Dosimetry of Radiolabeled Antibodies Is a Critical Determinant of Successful Radioimmunotherapy in B-Cell Lymphoma. Yong Du, Jamie Honeychurch, Martin Glennie, Peter Johnson, and Tim Illidge1335

***In vivo* Effects of Vaccination with Six-Transmembrane Epithelial Antigen of the Prostate: A Candidate Antigen for Treating Prostate Cancer.** Maria de la Luz Garcia-Hernandez, Andrew Gray, Bolya Hubby, and W. Martin Kast1344

Endocrinology

Long-term Treatment with Tamoxifen Facilitates Translocation of Estrogen Receptor α out of the Nucleus and Enhances its Interaction with EGFR in MCF-7 Breast Cancer Cells. Ping Fan, Jiping Wang, Richard J. Santen, and Wei Yue1352

Impaired Dihydrotestosterone Catabolism in Human Prostate Cancer: Critical Role of AKR1C2 as a Pre-Receptor Regulator of Androgen Receptor Signaling. Qing Ji, Lilly Chang, Frank Z. Stanczyk, Murad Ookhtens, Andy Sherrod, and Andrew Stolz1361

Clinical Research

DNA Methylation of Tumor Suppressor Genes in Clinical Remission Predicts the Relapse Risk in Acute Myeloid Leukemia. Shuchi Agrawal, Matthias Unterberg, Steffen Koschmieder, Udo zur Stadt, Uta Brunenberg, Walter Verbeek, Thomas Büchner, Wolfgang E. Berdel, Hubert Serve, and Carsten Müller-Tidow1370

Epidemiology and Prevention

The Dietary Charred Meat Carcinogen 2-Amino-1-Methyl-6-Phenylimidazo[4,5-*b*]Pyridine Acts as Both a Tumor Initiator and Promoter in the Rat Ventral Prostate. Yasutomo Nakai, William G. Nelson, and Angelo M. De Marzo1378

Protein Kinase C ϵ , which Sensitizes Skin to Sun's UV Radiation-Induced Cutaneous Damage and Development of Squamous Cell Carcinomas, Associates with Stat3. Moammir H. Aziz, Herbert T. Manoharan, and Ajit K. Verma1385

Genetic Variation in Base Excision Repair Genes and the Prevalence of Advanced Colorectal Adenoma. Sonja I. Berndt, Wen-Yi Huang, M. Daniele Fallin, Kathy J. Helzlsouer, Elizabeth A. Platz, Joel L. Weissfeld, Timothy R. Church, Robert Welch, Stephen J. Chanock, and Richard B. Hayes1395

Correction

Correction: CD45 Targeting Using an scFv₄SA Fusion Protein1405

Cancer Research

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

67 (3)

Cancer Res 2007;67:847-1406.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/67/3>

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/67/3>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.