

## REVIEWS

- 1749 **Remote Control of Intestinal Tumorigenesis by Innate Immunity**  
Thomas Secher, Olivier Gaillot, Bernhard Ryffel, and Mathias Chamaillard
- 1753 **The COXEN Principle: Translating Signatures of *In vitro* Chemosensitivity into Tools for Clinical Outcome Prediction and Drug Discovery in Cancer**  
Steven C. Smith, Alexander S. Baras, Jae K. Lee, and Dan Theodorescu

## PRIORITY REPORTS

- 1759 **Inactivation of Junctional Adhesion Molecule-A Enhances Antitumoral Immune Response by Promoting Dendritic Cell and T Lymphocyte Infiltration**  
Masato Murakami, Chiara Francavilla, Iliara Torselli, Monica Corada, Luigi Maddaluno, Antonio Sica, Gianluca Matteoli, Iliyan Dimitrov Iliev, Alberto Mantovani, Maria Rescigno, Ugo Cavallaro, and Elisabetta Dejana
- 1766 **DNA Methylation-Dependent Repression of PDZ-LIM Domain-Containing Protein 2 in Colon Cancer and Its Role as a Potential Therapeutic Target**  
Zhaoxia Qu, Pengrong Yan, Jing Fu, Jing Jiang, Michael J. Grusby, Thomas E. Smithgall, and Gutian Xiao

## RESEARCH ARTICLE

- 1773 **Signal Transduction Networks in Cancer: Quantitative Parameters Influence Network Topology**  
David J. Klinken II

## INTEGRATED SYSTEMS AND TECHNOLOGIES

- 1783 **An RNA Interference Screen Identifies Metabolic Regulators *NR1D1* and *PBP* as Novel Survival Factors for Breast Cancer Cells with the *ERBB2* Signature**  
Antonios Kourtidis, Ritu Jain, Richard D. Carkner, Cheryl Eifert, M. Julia Brosnan, and Douglas S. Conklin
- 1793 **miR-181a and miR-630 Regulate Cisplatin-Induced Cancer Cell Death**  
Lorenzo Galluzzi, Eugenia Morselli, Ilio Vitale, Oliver Kepp, Laura Senovilla, Alfredo Criollo, Nicolas Servant, Caroline Paccard, Philippe Hupé, Thomas Robert, Hugues Ripoche, Vladimir Lazar, Annick Harel-Bellan, Philippe Dessen, Emmanuel Barillot, and Guido Kroemer

## MICROENVIRONMENT AND IMMUNOLOGY

- 1804 **A Placental Growth Factor Variant Unable to Recognize Vascular Endothelial Growth Factor (VEGF) Receptor-1 Inhibits VEGF-Dependent Tumor Angiogenesis via Heterodimerization**  
Valeria Tarallo, Loredana Vesci, Onofrio Capasso, Maria Teresa Esposito, Teresa Riccioni, Lucio Pastore, Augusto Orlandi, Claudio Pisano, and Sandro De Falco
- 1814 **Vascular Endothelial Growth Factor-C Induces Lymphangitic Carcinomatosis, an Extremely Aggressive Form of Lung Metastases**  
Suvendu Das, Daniel S. Ladell, Simona Podgrabinska, Vladimir Ponomarev, Chandandeep Nagi, John T. Fallon, and Mihaela Skobe

1825 **The Proteasome Inhibitor Bortezomib Sensitizes Melanoma Cells toward Adoptive CTL Attack**  
Jens Michael Seeger, Patrick Schmidt, Kerstin Brinkmann, Andreas A. Hombach, Oliver Coutelle, Paola Zigrino, Diana Wagner-Stippich, Cornelia Mauch, Hinrich Abken, Martin Krönke, and Hamid Kashkar

1835 **Vitamin D Deficiency Promotes Human Breast Cancer Growth in a Murine Model of Bone Metastasis**  
Li Laine Ooi, Hong Zhou, Robert Kalak, Yu Zheng, Arthur D. Conigrave, Markus J. Seibel, and Colin R. Dunstan

1845 **Immunotherapeutic Suppression of Indoleamine 2,3-Dioxygenase and Tumor Growth with Ethyl Pyruvate**  
Alexander J. Muller, James B. DuHadaway, Daniel Jaller, Peter Curtis, Richard Metz, and George C. Prendergast

1906 **Molecular Profiling Uncovers a p53-Associated Role for MicroRNA-31 in Inhibiting the Proliferation of Serous Ovarian Carcinomas and Other Cancers**  
Chad J. Creighton, Michael D. Fountain, Zhifeng Yu, Ankur K. Nagaraja, Huifeng Zhu, Mahjabeen Khan, Emuejevoke Olokpa, Azam Zariff, Preethi H. Gunaratne, Martin M. Matzuk, and Matthew L. Anderson

1916 **hsa-miR-29c\* Is Linked to the Prognosis of Malignant Pleural Mesothelioma**  
Harvey I. Pass, Chandra Goparaju, Sergey Ivanov, Jessica Donington, Michele Carbone, Moshe Hoshen, Dalia Cohen, Ayelet Chajut, Shai Rosenwald, Harel Dan, Sima Benjamin, and Ranit Aharonov

## MOLECULAR AND CELLULAR PATHOBIOLOGY

1854 **Reexpression of hSNF5 in Malignant Rhabdoid Tumor Cell Lines Causes Cell Cycle Arrest through a p21<sup>CIP1/WAF1</sup>-Dependent Mechanism**  
Yasumichi Kuwahara, Aubri Charboneau, Erik S. Knudsen, and Bernard E. Weissman

1866 **Regulation of the MicroRNA Processor DGCR8 by the Tumor Suppressor INGI**  
Daniel Gómez-Cabello, Sergio Callejas, Alberto Benguría, Alberto Moreno, Javier Alonso, and Ignacio Palmero

1875 **Atm-Deficient Mice Exhibit Increased Sensitivity to Dextran Sulfate Sodium-Induced Colitis Characterized by Elevated DNA Damage and Persistent Immune Activation**  
Aya M. Westbrook and Robert H. Schiestl

1885 **Talin1 Promotes Tumor Invasion and Metastasis via Focal Adhesion Signaling and Anoikis Resistance**  
Shinichi Sakamoto, Richard O. McCann, Rajiv Dhir, and Natasha Kyprianou

1896 **Role of Secreted Frizzled-Related Protein 3 in Human Renal Cell Carcinoma**  
Hiroshi Hirata, Yuji Hinoda, Koji Ueno, Shahana Majid, Sharanjot Saini, and Rajvir Dahiya

## PREVENTION AND EPIDEMIOLOGY

1925 **Bitter Melon (*Momordica charantia*) Extract Inhibits Breast Cancer Cell Proliferation by Modulating Cell Cycle Regulatory Genes and Promotes Apoptosis**  
Ratna B. Ray, Amit Raychoudhuri, Robert Steele, and Pratibha Nerurkar

1932 **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**  
Sangeeta Shrotriya, Joydeb Kumar Kundu, Hye-Kyung Na, and Young-Joon Surh

## THERAPEUTICS, TARGETS, AND CHEMICAL BIOLOGY

1941 **Thioredoxin Reductase-1 Mediates Curcumin-Induced Radiosensitization of Squamous Carcinoma Cells**  
Prashanthi Javvadi, Lauren Hertan, Rachelle Kosoff, Tatini Datta, Johann Kolev, Rosemarie Mick, Stephen W. Tuttle, and Constantinos Koumenis

1951 **Celastrol Suppresses Angiogenesis-Mediated Tumor Growth through Inhibition of AKT/Mammalian Target of Rapamycin Pathway**  
Xiufeng Pang, Zhengfang Yi, Jing Zhang, Binbin Lu, Bokyung Sung, Weijing Qu, Bharat B. Aggarwal, and Mingyao Liu

- 1960 **A Bax-Mediated Mechanism for Obatoclax-Induced Apoptosis of Cholangiocarcinoma Cells**  
Rory L. Smoot, Boris R.A. Blechacz, Nathan W. Werneburg, Steve F. Bronk, Frank A. Sinicrope, Alphonse E. Sirica, and Gregory J. Gores
- 1970 **Evaluation of the Proteasome Inhibitor MLN9708 in Preclinical Models of Human Cancer**  
Erik Kupperman, Edmund C. Lee, Yueying Cao, Bret Bannerman, Michael Fitzgerald, Allison Berger, Jie Yu, Yu Yang, Paul Hales, Frank Bruzzese, Jane Liu, Jonathan Blank, Khristofer Garcia, Christopher Tsu, Larry Dick, Paul Fleming, Li Yu, Mark Manfredi, Mark Rolfe, and Joe Bolen
- 1981 **Activation of Hedgehog Signaling by the Environmental Toxicant Arsenic May Contribute to the Etiology of Arsenic-Induced Tumors**  
Dennis Liang Fei, Hua Li, Courtney D. Kozul, Kendall E. Black, Samer Singh, Julie A. Gosse, James DiRenzo, Kathleen A. Martin, Baolin Wang, Joshua W. Hamilton, Margaret R. Karagas, and David J. Robbins
- 1989 **HER Kinase Axis Receptor Dimer Partner Switching Occurs in Response to EGFR Tyrosine Kinase Inhibition despite Failure to Block Cellular Proliferation**  
Anjali Jain, Elicia Penuel, Sheldon Mink, Joanna Schmidt, Amanda Hodge, Kristin Favero, Charles Tindell, and David B. Agus
- 2000 **Protection from Rapamycin-Induced Apoptosis by Insulin-Like Growth Factor-I Is Partially Dependent on Protein Kinase C Signaling**  
Kuntebommanahalli N. Thimmaiah, John B. Easton, and Peter J. Houghton
- 2020 **Nuclear Janus-Activated Kinase 2/Nuclear Factor 1-C2 Suppresses Tumorigenesis and Epithelial-to-Mesenchymal Transition by Repressing Forkhead Box F1**  
Jeanette Nilsson, Khalil Helou, Anikó Kovács, Pär-Ola Bendahl, Gunnar Bjursell, Märten Fernö, Peter Carlsson, and Marie Kannius-Janson
- 2030 **Transcriptional Profiles of CD133<sup>+</sup> and CD133<sup>-</sup> Glioblastoma-Derived Cancer Stem Cell Lines Suggest Different Cells of Origin**  
Claudio Lottaz, Dagmar Beier, Katharina Meyer, Praveen Kumar, Andreas Hermann, Johannes Schwarz, Markus Junker, Peter J. Oefner, Ulrich Bogdahn, Jörg Wischhusen, Rainer Spang, Alexander Storch, and Christoph P. Beier
- 2041 **TRF1 Mediates Mitotic Abnormalities Induced by Aurora-A Overexpression**  
Tomokazu Ohishi, Toru Hirota, Takashi Tsuruo, and Hiroyuki Seimiya
- 2053 **FOXQ1 Is Overexpressed in Colorectal Cancer and Enhances Tumorigenicity and Tumor Growth**  
Hiroyasu Kaneda, Tokuzo Arao, Kaoru Tanaka, Daisuke Tamura, Keiichi Aomatsu, Kanae Kudo, Kazuko Sakai, Marco A. De Velasco, Kazuko Matsumoto, Yoshihiko Fujita, Yasuhide Yamada, Junji Tsurutani, Isamu Okamoto, Kazuhiko Nakagawa, and Kazuto Nishio
- 2064 **Protein Kinase C $\epsilon$  Is Required for Pancreatic Cancer Cell Transformed Growth and Tumorigenesis**  
Michele L. Scotti, William R. Bamlet, Thomas C. Smyrk, Alan P. Fields, and Nicole R. Murray
- 2075 **An Oncogenic Role for ETV1 in Melanoma**  
Judit Jané-Valbuena, Hans R. Widlund, Sven Perner, Laura A. Johnson, Aurora C. Dibner, William M. Lin, Alissa C. Baker, Rosalynn M. Nazarian, Krishna G. Vijayendran, William R. Sellers, William C. Hahn, Lyn M. Duncan, Mark A. Rubin, David E. Fisher, and Levi A. Garraway
- 2085 **FGFR1 Amplification Drives Endocrine Therapy Resistance and Is a Therapeutic Target in Breast Cancer**  
Nicholas Turner, Alex Pearson, Rachel Sharpe, Maryou Lambros, Felipe Geyer, Maria A. Lopez-Garcia, Rachael Natrajan, Caterina Marchio, Elizabeth Iorns, Alan Mackay, Cheryl Gillett, Anita Grigoriadis, Andrew Tutt, Jorge S. Reis-Filho, and Alan Ashworth

## TUMOR AND STEM CELL BIOLOGY

- 2010 **Suppression of Cyclin D1 by Hypoxia-Inducible Factor-1 via Direct Mechanism Inhibits the Proliferation and 5-Fluorouracil-Induced Apoptosis of A549 Cells**  
Wen Wen, Jin Ding, Wen Sun, Kun Wu, Beifang Ning, Wenfeng Gong, Guoping He, Shanna Huang, Xinyu Ding, Peipei Yin, Lei Chen, Qiong Liu, Weifen Xie, and Hongyang Wang

- 2095 **Protein Kinase D1 Inhibits Cell Proliferation through Matrix Metalloproteinase-2 and Matrix Metalloproteinase-9 Secretion in Prostate Cancer**  
M. Helal Uddin Biswas, Cheng Du, Chuanyou Zhang, Juerg Straubhaar, Lucia R. Languino, and K.C. Balaji
- 2105 **Cyclin D1/Cyclin-Dependent Kinase 4 Interacts with Filamin A and Affects the Migration and Invasion Potential of Breast Cancer Cells**  
Zhijiu Zhong, Wen-Shuz Yeow, Chunhua Zou, Richard Wassell, Chenguang Wang, Richard G. Pestell, Judy N. Quong, and Andrew A. Quong
- 2115 **Loss of FOXA1/2 Is Essential for the Epithelial-to-Mesenchymal Transition in Pancreatic Cancer**  
Yan Song, M. Kay Washington, and Howard C. Crawford
- 2126 **Activation of Phosphatidylcholine Cycle Enzymes in Human Epithelial Ovarian Cancer Cells**  
Egidio Iorio, Alessandro Ricci, Marina Bagnoli, Maria Elena Pisanu, Giancarlo Castellano, Massimo Di Vito, Elisa Venturini, Kristine Glunde, Zaver M. Bhujwala, Delia Mezzanzanica, Silvana Canevari, and Franca Podo

## LETTERS TO THE EDITOR

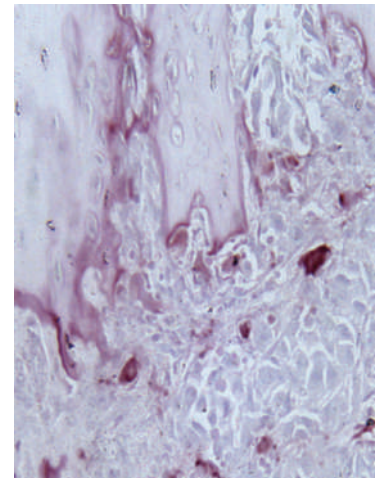
- 2136 **Comment re: Detection of Cervical Precancer by HPV Genotype**  
Arnold-Jan Kruse and Brigitte F.M. Slangen
- 2136 **In Response.** Mahboobeh Safaeian, Mark Schiffman, Julia Gage, Philip E. Castle, Diane Solomon, and Cosette M. Wheeler

## CORRECTIONS

- 2138 **Correction: Small-Molecule Inhibitors of Phosphatidylinositol 3-Kinase/Akt Signaling Inhibit Wnt/ $\beta$ -Catenin Pathway Cross-Talk and Suppress Medulloblastoma Growth**
- 2140 **Correction:  $\alpha$ 2-Macroglobulin Inhibits the Malignant Properties of Astrocytoma Cells by Impeding  $\beta$ -Catenin Signaling**
- 2140 **Correction: Online Publication Dates for *Cancer Research* January 15, 2010 Articles**

## ABOUT THE COVER

Vitamin D deficiency has been previously reported to be a risk factor for breast cancer progression, though whether this association represents a causal relationship is not known. In this report, human breast cancer cells are found to proliferate faster in the bone of nude mice deficient in vitamin D compared with those in vitamin D-sufficient mice. Vitamin D deficiency, predominantly through induction of increased bone resorption by osteoclasts (here highlighted by red staining for tartrate-resistant acid phosphatase activity), modifies the microenvironment of bone to enhance early breast cancer cell proliferation. For details, see the article by Ooi and colleagues on page 1835 of this issue.



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