

**IN THIS ISSUE** Highlighted research articles .....vi

**NEWS IN BRIEF** Important news stories affecting the community.....291

**NEWS IN DEPTH** Q&A: Antoni Ribas on Immunotherapy Progress.....293

Speeding Discoveries with Neoadjuvant Studies .....294

The Science of Biosimilars .....295

**RESEARCH WATCH** Selected highlights of recent articles of exceptional significance from the cancer literature.....296

**ONLINE** For more News and Research Watch, visit *Cancer Discovery* online at <http://CDnews.aacrjournals.org>.

**VIEW** In The Spotlight

**A Spotlight from Prostate Cancer** .....301  
*H.R. Herschman and J. Czernin*  
*Commentary on Ulmert et al., p. 320*

**Cancer Cell Metabolism: There Is No ROS for the Weary**.....304  
*C.V. Dang*  
*Commentary on Ros et al., p. 328*

**The Role of the PGE<sub>2</sub>-Aromatase Pathway in Obesity-Associated Breast Inflammation**.....308

*D. Wang and R.N. DuBois*  
*Commentary on Subbaramaiah et al., p. 356*

**REVIEW** Negative Feedback and Adaptive Resistance to the Targeted Therapy of Cancer ... 311

*S. Chandralapaty*

**RESEARCH BRIEF** Imaging Androgen Receptor Signaling with a Radiotracer Targeting Free Prostate-Specific Antigen.....320



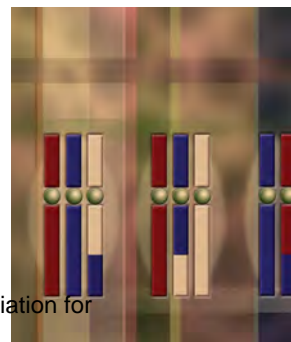
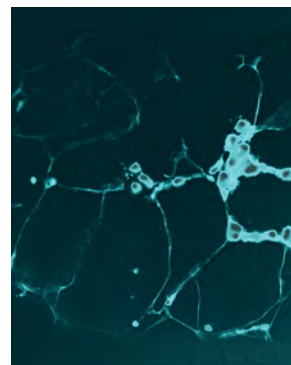
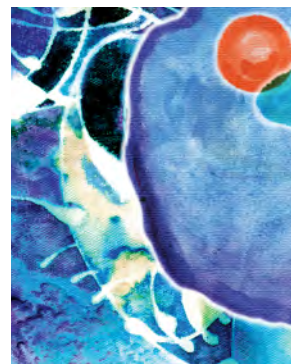
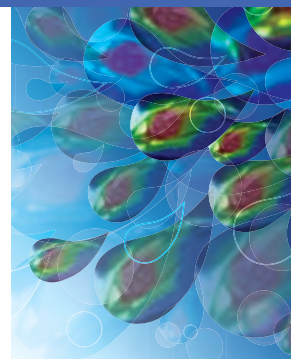
*D. Ulmert, M.J. Evans, J.P. Holland, S.L. Rice, J. Wongvipat, K. Pettersson, P-A. Abrahamsson, P.T. Scardino, S.M. Larson, H. Lilja, J.S. Lewis, and C.L. Sawyers*

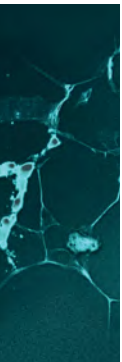
**Précis:** A PSA-targeted radiotracer specifically localizes to prostate tumors and bone metastases and quantifies responses to antiandrogen therapy.

**RESEARCH ARTICLES** Functional Metabolic Screen Identifies 6-Phosphofructo-2-Kinase/ Fructose-2,6-Biphosphatase 4 as an Important Regulator of Prostate Cancer Cell Survival.....328

*S. Ros, C.R. Santos, S. Moco, F. Baenke, G. Kelly, M. Howell, N. Zamboni, and A. Schulze*

**Précis:** PFKFB4 regulates the balance between glycolysis and the pentose phosphate pathway to maintain redox homeostasis in prostate cancer cells.





**Metformin Accelerates the Growth of BRAF<sup>V600E</sup>-Driven Melanoma by Upregulating VEGF-A . . . . . 344**

*M.J. Martin, R. Hayward, A. Viros, and R. Marais*

**Précis:** Metformin promotes BRAF-mutant melanoma growth via VEGF-A induction, but synergizes with VEGF inhibitors to suppress tumor growth.

**Increased Levels of COX-2 and Prostaglandin E<sub>2</sub> Contribute to Elevated Aromatase Expression in Inflamed Breast Tissue of Obese Women . . . . . 356**

*K. Subbaramaiah, P.G. Morris, X.K. Zhou, M. Morrow, B. Du, D. Giri, L. Kopelovich, C.A. Hudis, and A.J. Dannenberg*

**Précis:** Obesity-related breast inflammation increases aromatase activity and may therefore underlie an increased risk of hormone receptor-positive breast cancer.

**Telomeric Allelic Imbalance Indicates Defective DNA Repair and Sensitivity to DNA-Damaging Agents . . . . . 366**

*N.J. Birkbak, Z.C. Wang, J.-Y. Kim, A.C. Eklund, Q. Li, R. Tian, C. Bowman-Colin, Y. Li, A. Greene-Colozzi, J.D. Iglehart, N. Tung, P.D. Ryan, J.E. Garber, D.P. Silver, Z. Szallasi, and A.L. Richardson*

**Précis:** Increased allelic imbalance extending to the telomeres predicts response to platinum-based chemotherapy and may identify patients with defective DNA repair.

**Correction**

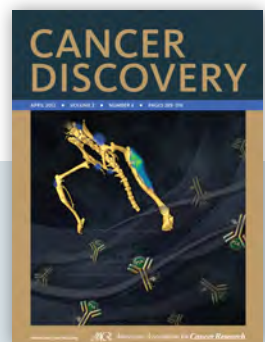
**Correction: Genomic Complexity and AKT Dependence in Serous Ovarian Cancer . . . . . 376**

For more News and Research Watch, visit *Cancer Discovery* online at <http://CDnews.aacrjournals.org>. Online-only News stories include the following:

- The 24-hour, \$1,000 Genome
- Delivering Quantum Dot Probes into the Cytosol
- DNA Nanorobot Signals Cancer Cells to Die
- Reporter Works with Multiple Imaging Types

**ON THE COVER**

Ulmert and colleagues developed <sup>89</sup>Zr-5A10, a radiolabeled monoclonal antibody that targets tumor-associated “free” prostate-specific antigen (PSA). The <sup>89</sup>Zr-5A10 radiotracer selectively and noninvasively detected and visualized prostate cancer xenografts and bone lesions, and could quantitatively measure changes in PSA production in response to antiandrogen therapy. These findings have implications for the clinical assessment of advanced prostate cancer and the evaluation of experimental therapies. For details, please see the article by Ulmert and colleagues on page 320.



# CANCER DISCOVERY

## 2 (4)

*Cancer Discovery* 2012;2:OF9-376.

**Updated version** Access the most recent version of this article at:  
<http://cancerdiscovery.aacrjournals.org/content/2/4>

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

**Permissions** To request permission to re-use all or part of this article, use this link <http://cancerdiscovery.aacrjournals.org/content/2/4>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.