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

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.

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


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

RESEARCH ARTICLES
The Role of the PGE₂-Aromatase Pathway in Obesity-Associated Breast Inflammation…………308

D. Wang and R.N. DuBois

Commentary on Subbaramaiah et al., p. 356

Negative Feedback and Adaptive Resistance to the Targeted Therapy of Cancer …311

S. Chandarlapaty

Imaging Androgen Receptor Signaling with a Radiotracer Targeting Free Prostate-Specific Antigen………320


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

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. Maco, 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.

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

IN THIS ISSUE

The Role of the PGE₂-Aromatase Pathway in Obesity-Associated Breast Inflammation…………308

D. Wang and R.N. DuBois

Commentary on Subbaramaiah et al., p. 356

Negative Feedback and Adaptive Resistance to the Targeted Therapy of Cancer …311

S. Chandarlapaty

Imaging Androgen Receptor Signaling with a Radiotracer Targeting Free Prostate-Specific Antigen………320


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

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. Maco, 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 BRAFV600E-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 E2 Contribute to Elevated Aromatase Expression in Inflamed Breast Tissue of Obese Women ................. 356
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
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 89Zr–5A10, a radiolabeled monoclonal antibody that targets tumor-associated “free” prostate-specific antigen (PSA). The 89Zr–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.