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



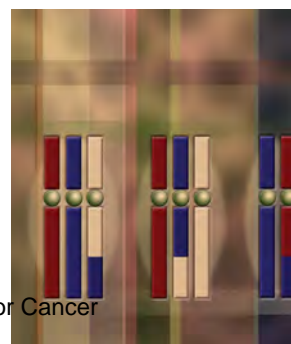
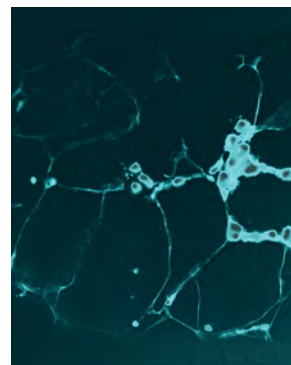
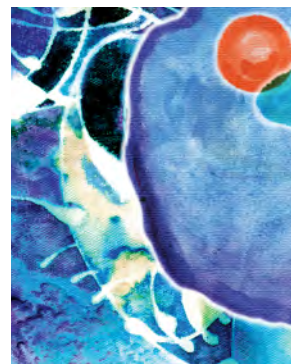
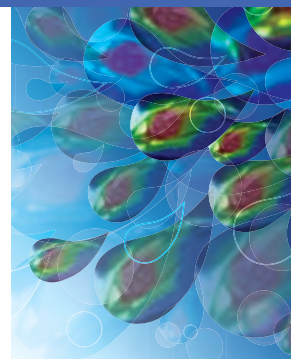
D. Ulmert, M.J. Evans, J.P. Holland, S.L. Rice, J. Wongvipat, K. Pettersson, P-A. Abrahamsson, P.T. Scardino, S.M. Larson, H. Lilja, J.S. Lewis, and C.L. Sawyers

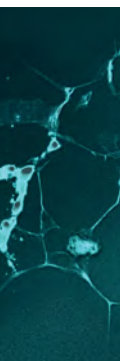
Précis: A PSA-targeted radiotracer specifically localizes to prostate tumors and bone metastases and quantifies responses to antiandrogen therapy.

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^{V600E}-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

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

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- The 24-hour, \approx 1,000 Genome
- DNA Nanorobot Signals Cancer Cells to Die
- Delivering Quantum Dot Probes into the Cytosol
- 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.



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