CANCER THERAPY: PRECLINICAL

Mechanisms of Activity of the TORC1 Inhibitor Everolimus in Waldenstrom Macroglobulinemia
Aldo M. Roccaro, Antonio Sacco, Xiaoqing Jia, Ranjit Banwait, Patricia Maiso, Feda Azab, Ludmila Flores, Salomon Manier, Abdel Kareem Azab, and Irene M. Ghobrial

Arylsulfonamide KCN1 Inhibits In Vivo Glioma Growth and Interferes with HIF Signaling by Disrupting HIF-1α Interaction with Coactivators p300/CBP

HER2-Associated Radioresistance of Breast Cancer Stem Cells Isolated from HER2-Negative Breast Cancer Cells
Nadire Duru, Ming Fan, Demet Candas, Cheikh Menaa, Hoin-Chen Liu, Danupon Nantajit, Yunfei Wen, Kai Xiao, Angela Eldridge, Brett A. Chromy, Shiyong Li, Douglas R. Spitz, Kit S. Lam, Max S. Wicha, and Jian Jian Li

Highly Specific Targeting of the TMPRSS5/ERG Fusion Gene Using Liposomal Nanovectors
Longjiang Shao, Ibrahim Tekedeleni, Jianguhua Wang, Erkan Yuca, Susan Tsang, Anil Sood, Gabriel Lopez-Berestein, Bulent Ozpolat, and Michael Ittmann

Translating the Therapeutic Potential of AZD4547 in FGFR1-Amplified Non-Small Cell Lung Cancer through the Use of Patient-Derived Tumor Xenograft Models
Jingchuan Zhang, Lin Zhang, Xinying Su, Ming Li, Liang Xie, Florian Malchers, Shuitqiong Fan, XiaoLu Yin, YanPing Xu, Kunji Liu, Zhengwei Dong, Guanshan Zhu, Ziliang Qian, Lili Tang, Ping Zhan, Qunsheng Ji, Elaine Kilgour, Paul D. Smith, A. Nigel Brooks, Roman K. Thomas, and Paul R. Gavine

HUMAN CANCER BIOLOGY

Identification of KIF5B-RET and 60PC-RDST Fusions in Lung Adenocarcinomas through a Comprehensive mRNA-Based Screen for Tyrosine Kinase Fusions
Yoshiyuki Suehara, Maria Arcila, Lu Wang, Adnan Hasanovic, Daphne Ang, Tatsuo Ito, Yuki Kimura, Alexander Drilon, Udayan Guha, Valerie Rusch, Mark G. Kris, Maureen F. Zakowski, Naiyer Rizvi, Raya Khanin, and Marc Ladanyi

Molecular Pathways: Next-Generation Immunotherapy—Inhibiting Programmed Death-Ligand 1 and Programmed Death-1
Daniel S. Chen, Bryan A. Irving, and F. Stephen Hodi

Do Imaging Biomarkers Relate to Outcome in Patients Treated with VEGF Inhibitors?
James P.R. O’Connor and Gordon C. Jayson

Breast Cancer Treatment with Imiquimod: Applying an Old Lotion to a New Disease
Holbrook Kohrt

See articles, p. 6668 and p. 6748

Mechanisms of Activity of the TORC1 Inhibitor Everolimus in Waldenstrom Macroglobulinemia
Aldo M. Roccaro, Antonio Sacco, Xiaoqing Jia, Ranjit Banwait, Patricia Maiso, Feda Azab, Ludmila Flores, Salomon Manier, Abdel Kareem Azab, and Irene M. Ghobrial

Arylsulfonamide KCN1 Inhibits In Vivo Glioma Growth and Interferes with HIF Signaling by Disrupting HIF-1α Interaction with Coactivators p300/CBP

HER2-Associated Radioresistance of Breast Cancer Stem Cells Isolated from HER2-Negative Breast Cancer Cells
Nadire Duru, Ming Fan, Demet Candas, Cheikh Menaa, Hoin-Chen Liu, Danupon Nantajit, Yunfei Wen, Kai Xiao, Angela Eldridge, Brett A. Chromy, Shiyong Li, Douglas R. Spitz, Kit S. Lam, Max S. Wicha, and Jian Jian Li

Highly Specific Targeting of the TMPRSS5/ERG Fusion Gene Using Liposomal Nanovectors
Longjiang Shao, Ibrahim Tekedeleni, Jianguhua Wang, Erkan Yuca, Susan Tsang, Anil Sood, Gabriel Lopez-Berestein, Bulent Ozpolat, and Michael Ittmann

Translating the Therapeutic Potential of AZD4547 in FGFR1-Amplified Non-Small Cell Lung Cancer through the Use of Patient-Derived Tumor Xenograft Models
Jingchuan Zhang, Lin Zhang, Xinying Su, Ming Li, Liang Xie, Florian Malchers, Shuitqiong Fan, XiaoLu Yin, YanPing Xu, Kunji Liu, Zhengwei Dong, Guanshan Zhu, Ziliang Qian, Lili Tang, Ping Zhan, Qunsheng Ji, Elaine Kilgour, Paul D. Smith, A. Nigel Brooks, Roman K. Thomas, and Paul R. Gavine

Identification of KIF5B-RET and 60PC-RDST Fusions in Lung Adenocarcinomas through a Comprehensive mRNA-Based Screen for Tyrosine Kinase Fusions
Yoshiyuki Suehara, Maria Arcila, Lu Wang, Adnan Hasanovic, Daphne Ang, Tatsuo Ito, Yuki Kimura, Alexander Drilon, Udayan Guha, Valerie Rusch, Mark G. Kris, Maureen F. Zakowski, Naiyer Rizvi, Raya Khanin, and Marc Ladanyi

Molecular Pathways: Next-Generation Immunotherapy—Inhibiting Programmed Death-Ligand 1 and Programmed Death-1
Daniel S. Chen, Bryan A. Irving, and F. Stephen Hodi

Do Imaging Biomarkers Relate to Outcome in Patients Treated with VEGF Inhibitors?
James P.R. O’Connor and Gordon C. Jayson

Breast Cancer Treatment with Imiquimod: Applying an Old Lotion to a New Disease
Holbrook Kohrt

See articles, p. 6668 and p. 6748

Mechanisms of Activity of the TORC1 Inhibitor Everolimus in Waldenstrom Macroglobulinemia
Aldo M. Roccaro, Antonio Sacco, Xiaoqing Jia, Ranjit Banwait, Patricia Maiso, Feda Azab, Ludmila Flores, Salomon Manier, Abdel Kareem Azab, and Irene M. Ghobrial

Arylsulfonamide KCN1 Inhibits In Vivo Glioma Growth and Interferes with HIF Signaling by Disrupting HIF-1α Interaction with Coactivators p300/CBP

HER2-Associated Radioresistance of Breast Cancer Stem Cells Isolated from HER2-Negative Breast Cancer Cells
Nadire Duru, Ming Fan, Demet Candas, Cheikh Menaa, Hoin-Chen Liu, Danupon Nantajit, Yunfei Wen, Kai Xiao, Angela Eldridge, Brett A. Chromy, Shiyong Li, Douglas R. Spitz, Kit S. Lam, Max S. Wicha, and Jian Jian Li

Highly Specific Targeting of the TMPRSS5/ERG Fusion Gene Using Liposomal Nanovectors
Longjiang Shao, Ibrahim Tekedeleni, Jianguhua Wang, Erkan Yuca, Susan Tsang, Anil Sood, Gabriel Lopez-Berestein, Bulent Ozpolat, and Michael Ittmann

Translating the Therapeutic Potential of AZD4547 in FGFR1-Amplified Non-Small Cell Lung Cancer through the Use of Patient-Derived Tumor Xenograft Models
Jingchuan Zhang, Lin Zhang, Xinying Su, Ming Li, Liang Xie, Florian Malchers, Shuitqiong Fan, XiaoLu Yin, YanPing Xu, Kunji Liu, Zhengwei Dong, Guanshan Zhu, Ziliang Qian, Lili Tang, Ping Zhan, Qunsheng Ji, Elaine Kilgour, Paul D. Smith, A. Nigel Brooks, Roman K. Thomas, and Paul R. Gavine

Identification of KIF5B-RET and 60PC-RDST Fusions in Lung Adenocarcinomas through a Comprehensive mRNA-Based Screen for Tyrosine Kinase Fusions
Yoshiyuki Suehara, Maria Arcila, Lu Wang, Adnan Hasanovic, Daphne Ang, Tatsuo Ito, Yuki Kimura, Alexander Drilon, Udayan Guha, Valerie Rusch, Mark G. Kris, Maureen F. Zakowski, Naiyer Rizvi, Raya Khanin, and Marc Ladanyi

Molecular Pathways: Next-Generation Immunotherapy—Inhibiting Programmed Death-Ligand 1 and Programmed Death-1
Daniel S. Chen, Bryan A. Irving, and F. Stephen Hodi

Do Imaging Biomarkers Relate to Outcome in Patients Treated with VEGF Inhibitors?
James P.R. O’Connor and Gordon C. Jayson

Breast Cancer Treatment with Imiquimod: Applying an Old Lotion to a New Disease
Holbrook Kohrt

See articles, p. 6668 and p. 6748

Mechanisms of Activity of the TORC1 Inhibitor Everolimus in Waldenstrom Macroglobulinemia
Aldo M. Roccaro, Antonio Sacco, Xiaoqing Jia, Ranjit Banwait, Patricia Maiso, Feda Azab, Ludmila Flores, Salomon Manier, Abdel Kareem Azab, and Irene M. Ghobrial

Arylsulfonamide KCN1 Inhibits In Vivo Glioma Growth and Interferes with HIF Signaling by Disrupting HIF-1α Interaction with Coactivators p300/CBP

HER2-Associated Radioresistance of Breast Cancer Stem Cells Isolated from HER2-Negative Breast Cancer Cells
Nadire Duru, Ming Fan, Demet Candas, Cheikh Menaa, Hoin-Chen Liu, Danupon Nantajit, Yunfei Wen, Kai Xiao, Angela Eldridge, Brett A. Chromy, Shiyong Li, Douglas R. Spitz, Kit S. Lam, Max S. Wicha, and Jian Jian Li

Highly Specific Targeting of the TMPRSS5/ERG Fusion Gene Using Liposomal Nanovectors
Longjiang Shao, Ibrahim Tekedeleni, Jianguhua Wang, Erkan Yuca, Susan Tsang, Anil Sood, Gabriel Lopez-Berestein, Bulent Ozpolat, and Michael Ittmann

Translating the Therapeutic Potential of AZD4547 in FGFR1-Amplified Non-Small Cell Lung Cancer through the Use of Patient-Derived Tumor Xenograft Models
Jingchuan Zhang, Lin Zhang, Xinying Su, Ming Li, Liang Xie, Florian Malchers, Shuitqiong Fan, XiaoLu Yin, YanPing Xu, Kunji Liu, Zhengwei Dong, Guanshan Zhu, Ziliang Qian, Lili Tang, Ping Zhan, Qunsheng Ji, Elaine Kilgour, Paul D. Smith, A. Nigel Brooks, Roman K. Thomas, and Paul R. Gavine
Synergy of Topical Toll-like Receptor 7 Agonist with Radiation and Low-Dose Cyclophosphamide in a Mouse Model of Cutaneous Breast Cancer
M. Zahidunnabi Dewan, Claire Vanpouille-Box, Noriko Kawashima, Sara DiNapoli, James S. Babb, Silvia C. Formenti, Sylvia Adams, and Sandra Demaria
See commentary, p. 6571

A Novel Therapeutic Regimen to Eradicate Established Solid Tumors with an Effective Induction of Tumor-Specific Immunity
James R. Tysome, Xiaozhu Li, Shengdian Wang, Pengju Wang, Dongling Gao, Pan Du, Dong Chen, Rathee Gangeswaran, Louisa S. Chard, Ming Yuan, Ghassan Alusi, Nicholas R. Lemoine, and Yaohe Wang

Ethacrynic Acid and a Derivative Enhance Apoptosis in Arsenic Trioxide–Treated Myeloid Leukemia and Lymphoma Cells: The Role of Glutathione S-Transferase P1-1
Rui Wang, Changda Liu, Lijuan Xia, Guisen Zhao, Janice Gabrilove, Samuel Waxman, and Yongkui Jing

miR-187 Is an Independent Prognostic Factor in Breast Cancer and Confers Increased Invasive Potential In Vitro

Identification of Serum Proton NMR Metabolomic Fingerprints Associated with Hepatocellular Carcinoma in Patients with Alcoholic Cirrhosis
Pierre Nahou, Roland Amathieu, Mohamed N. Triba, Nadia Bouchenal, Jean-Charles Nault, Marianne Ziol, Olivier Seror, Gilles Dhonneur, Jean-Claude Trinchet, Michel Beauprand, and Laurence Le Moyec

Topical TLR7 Agonist Imiquimod Can Induce Immune-Mediated Rejection of Skin Metastases in Patients with Breast Cancer
Sylvia Adams, Lina Kozhaya, Frank Martinjak, Tze-Chiang Meng, Luis Chiriboga, Leonard Liebes, Tsitina Hochman, Nicholas Shuman, Deborah Axelson, James Speyer, Yelena Novik, Amy Tiersten, Judith D. Goldberg, Silvia C. Formenti, Nina Bhardwaj, Derya Unutmaz, and Sandra Demaria
See commentary, p. 6571
Specific Lymphocyte Subsets Predict Response to Adoptive Cell Therapy Using Expanded Autologous Tumor-Infiltrating Lymphocytes in Metastatic Melanoma Patients

Phosphoinositide 3-Kinase (PI3K) Pathway Alterations Are Associated with Histologic Subtypes and Are Predictive of Sensitivity to PI3K Inhibitors in Lung Cancer Preclinical Models
Jill M. Spoerke, Carol O'Brien, Ling Huw, Hartmut Koeppen, Jane Fridlyand, Rainer K. Brachmann, Peter M. Haverty, Ajay Pandita, Sankar Mohan, Deepak Sampath, Lori S. Friedman, Leanne Ross, Garret M. Hampton, Lukas C. Amler, David S. Shames, and Mark R. Lackner

Frequent Mutational Activation of the PI3K-AKT Pathway in Trastuzumab-Resistant Breast Cancer
Sarat Chandarlapaty, Rita A. Sakr, Dilip Giri, Sujata Patil, Adriana Heguy, Monica Morrow, Shanu Modi, Larry Norton, Neal Rosen, Clifford Hudis, and Tari A. King

Clinicopathologic Features of V600E and V600K Melanoma—Letter
Rosalyn Jewell, Philip Chambers, Mark Harland, Jon Laye, Caroline Conway, Angana Mitra, Faye Elliott, Martin G. Cook, Andy Boon, and Julia Newton-Bishop

Clinicopathologic Features of V600E and V600K Melanoma—Response
Alexander M. Menzies and Georgina V. Long

The photomicrograph is of a metastatic, trastuzumab-refractory, HER2-amplified breast cancer with loss of PTEN expression by immunohistochemistry. The normal stromal cells interspersed in the tumor display strong PTEN staining (brown), whereas the cancer cells show complete absence of stain. The primary tumor (pretastuzumab treatment) from this patient showed equivalent PTEN staining in the stromal cells and cancer cells. For details, see the article by Chandarlapaty and colleagues on page 6784 of this issue.