Highlights of This Issue 2009

FROM THE EDITOR-IN-CHIEF

2011 The Patient Impact Factor

THE BEST OF MCT–10 YEARS

2012 Shining the Light on Aurora-A Kinase as a Drug Target in Pancreatic Cancer
David J. Bearss

2013 First Report of Functional Chk1 siRNA Studies Applied to Drug Discovery
Zehan Chen

2015 The Discovery and Development of SU14813, a Next-Generation Multitargeted Tyrosine Kinase Inhibitor for the Treatment of Human Malignancies
Dana Hu-Lowe, Nicoletta Brega, and Shem Patyna

2016 PI3K Inhibitors for Cancer Treatment: Five Years of Preclinical and Clinical Research after BEZ235
Sauveur-Michel Maira

2017 Discovering and Developing PI3 Kinase Inhibitors for Cancer: Rapid Progress through Academic-Biotech-Pharma Interactions
Florence I. Raynaud and Paul Workman

2019 The Discovery of Lapatinib (GW572016)
David Rusnak and Tona M. Gilmer

2020 Methylation Profiling of Lung Cancer: A Decade of Progress
Shinichi Toyooka and Adi F. Gazdar

2021 MicroRNAs in Cancer Pharmacology and Therapeutics: Exploiting a Natural Synergy between ‘-omic’ and Hypothesis-Driven Research
John N. Weinstein

2022 Development of the First Generation c-Met Kinase Inhibitors: Beginning of a Path to a New Treatment for Cancer
Xueyan Wang, Gerald McMahon, and Kenneth E. Lipson

2024 Proof of Principle for Crizotinib in Anaplastic Lymphoma Kinase-Positive Malignancies Was Achieved in ALK-Positive Nonclinical Models
James G. Christensen

2025 Lapatinib: Functional Genomics Study Leads to Insights into Mechanism of Action
Tona M. Gilmer

2026 Bench to Bedside and Back Again: Personalizing Treatment for Patients with GIST
Andrew K. Godwin

2028 The Importance of PK/PD Data–Key Biological Answers Needed to Evaluate the Success of Potential Cancer Therapeutics
Rakesh Kumar and Benjamin Suttle

2029 Bortezomib: Understanding the Mechanism of Action
Bilal Piperdi, Yi-He Ling, Leonard Liebes, Franco Muggia, and Roman Perez-Soler

2030 Starting with the ABCs: Akt in Breast Cancer
Kip A. West and Phillip A. Dennis

2031 Cell Line Models Identify Different Sensitivity of Mutant Forms of c-KIT to Kinase Inhibitory Drugs and Predict the Response of Patients to Therapy
Leonie K. Ashman

2034 Mechanism of Action of Proteasome Inhibitors and Deacetylase Inhibitors and the Biological Basis of Synergy in Multiple Myeloma
Teru Hideshima, Paul G. Richardson, and Kenneth C. Anderson
### THERAPEUTIC DISCOVERY

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2043</td>
<td>Identification of Small-Molecule Inhibitors of the Colorectal Cancer Oncogene Kruppel-like Factor 5 Expression by Ultrahigh-Throughput Screening</td>
<td>Agnieszka B. Bialkowska, Melissa Crisp, Thomas Bannister, Yuanjun He, Sarwat Chowdhury, Stephan Schürer, Peter Chase, Timothy Spencer, Franck Madoux, Chenlu Tian, Peter Hodder, Daniel Zaharevitz, and Vincent W. Yang</td>
</tr>
<tr>
<td>2052</td>
<td>Discovery and Evaluation of Inhibitors of Human Ceramidase</td>
<td>Jeremiah M. Draper, Zuping Xia, Ryan A. Smith, Yan Zhuang, Wexue Wang, and Charles D. Smith</td>
</tr>
<tr>
<td>2062</td>
<td>Targeting the Intracellular MUC1 C-terminal Domain Inhibits Proliferation and Estrogen Receptor Transcriptional Activity in Lung Adenocarcinoma Cells</td>
<td>Carolyn M. Klinge, Brandie N. Radde, Yoannis Imbert-Fernandez, Yun Teng, Margarita M. Ivanova, Sabra M. Abner, and Alexandra L. Martin</td>
</tr>
<tr>
<td>2072</td>
<td>A6 Peptide Activates CD44 Adhesive Activity, Induces FAK and MEK Phosphorylation, and Inhibits the Migration and Metastasis of CD44-Expressing Cells</td>
<td>Randolph S. Piotrowicz, Bassam B. Damaj, Mohamed Hachicha, Francesca Incardona, Stephen B. Howell, and Malcolm Finlayson</td>
</tr>
<tr>
<td>2083</td>
<td>Digitoxin-Induced Cytotoxicity in Cancer Cells Is Mediated through Distinct Kinase and Interferon Signaling Networks</td>
<td>Ioannis Prassas, George S. Karagiannis, Ihor Butrich, Apostolos Dimitromanolakis, Alessandro Datti, and Eleftherios P. Diamandis</td>
</tr>
</tbody>
</table>

### PRECLINICAL DEVELOPMENT

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2094</td>
<td>Combining Curcumin (Diferuloylmethane) and Heat Shock Protein Inhibition for Neurofibromatosis 2 Treatment: Analysis of Response and Resistance Pathways</td>
<td>Laura S. Angelo, Ji Yuan Wu, Feng Meng, Michael Sun, Scott Kopetz, Ian E. McCutcheon, John M. Slopis, and Razelle Kurzrock</td>
</tr>
<tr>
<td>2104</td>
<td>Inactivation of Mirk/Dyrk1b Kinase Targets Quiescent Pancreatic Cancer Cells</td>
<td>Daina Z. Ewton, Jing Hu, Maria Vilenchik, Xiaobing Deng, Kin-chun Luk, Ann Polonskaia, Ann F. Hoffman, Karen Zipf, John F. Boylan, and Eileen A. Friedman</td>
</tr>
<tr>
<td>2124</td>
<td>Targeting the Intracellular MUC1 C-terminal Domain Inhibits Proliferation and Estrogen Receptor Transcriptional Activity in Lung Adenocarcinoma Cells</td>
<td>Carolyn M. Klinge, Brandie N. Radde, Yoannis Imbert-Fernandez, Yun Teng, Margarita M. Ivanova, Sabra M. Abner, and Alexandra L. Martin</td>
</tr>
<tr>
<td>2157</td>
<td>3,5-Bis(2,4-Difluorobenzylidene)-4-piperidone, a Novel Compound That Affects Pancreatic Cancer Growth and Angiogenesis</td>
<td>Dharmalingam Subramaniam, Nathan D. Nichols, Animesh Dhar, Shahid Umar, Vibhudutta Awasthi, Danny R. Welch, Roy A. Jensen, and Shrikant Anant</td>
</tr>
</tbody>
</table>

The Cancer Drug Development Journal: From Concept to Clinic  v www.aacrjournals.org
MOLECULAR MEDICINE IN PRACTICE

2168  Tasisulam Sodium, an Antitumor Agent That Inhibits Mitotic Progression and Induces Vascular Normalization
Timothy Meier, Mark Uhlik, Sudhakar Chintharlapalli, Michele Dowless, Robert Van Horn, Julie Stewart, Wayne Blosser, James Cook, Debra Young, Xiang Ye, Glenn Evans, Kelly Credille, Darryl Ballard, Lysiane Huber, Andrew Capen, Marcio Chedid, Robert Ilaria, Jr., Michele C. Smith, and Louis Stancato

2179  Antitumoral Effects of Calcitriol in Basal Cell Carcinomas Involve Inhibition of Hedgehog Signaling and Induction of Vitamin D Receptor Signaling and Differentiation
Anja Uhmann, Hannah Niemann, Berénice Lammering, Cornelia Henkel, Ina Heß, Frauke Nitzki, Anne Fritsch, Nicole Prüfer, Albert Rosenberger, Christian Dullin, Anke Schraepler, Julia Reifenberger, Stefan Schweyer, Torsten Fietzsch, Frank Strutz, Walter Schulz-Schaefeer, and Heidi Hahn

PB-04691502, a Potent and Selective Oral Inhibitor of PI3K and mTOR Kinases with Antitumor Activity

2200  A Novel, Selective Inhibitor of Fibroblast Growth Factor Receptors That Shows a Potent Broad Spectrum of Antitumor Activity in Several Tumor Xenograft Models
Genshi Zhao, Wei-ying Li, Daohong Chen, James R. Henry, Hong-Yu Li, Zhaoen Chen, Mohammad Zia-Ebrahimi, Laura Bloom, Yan Zhai, Karen Huss, Sheng-bin Peng, and Denis J. McCann

Correction: Activated Phosphoinositide 3-Kinase/AKT Signaling Confers Resistance to Trastuzumab but not Lapatinib

ABOUT THE COVER

Met kinase homology model with its inhibitor, SU11271, docked in the ATP binding site. The cover image was selected from an article previously published in Molecular Cancer Therapeutics, which was chosen in celebration of the 10th anniversary of the journal. For details, see the commentary by Wang and colleagues on page 2022.