## HUMAN CANCER BIOLOGY

### Deciphering the Mechanisms of Tumorigenesis in Human Pancreatic Ductal Epithelial Cells
Zhe Chang, Zhongkui Li, Xiaoyang Wang, Ya’an Kang, Yuhui Yuan, Jiangong Niu, Huamin Wang, Deyali Chatterjee, Jason B. Fleming, Min Li, James L. Abbruzzesse, and Paul J. Chiao

### SLC1A5 Mediates Glutamine Transport Required for Lung Cancer Cell Growth and Survival
Mohamed Hassanein, Megan D. Hoeksema, Masakazu Shiota, Jun Qian, Bradford K. Harris, Heidi Chen, Jonathan E. Clark, William E. Alborn, Rosana Eisenberg, and Pierre P. Massion

### Impact of Tumor Microenvironment and Epithelial Phenotypes on Metabolism in Breast Cancer
Heather Ann Brauer, Liza Makowski, Katherine A. Hoadley, Patricia Casbas-Hernandez, Lindsay J. Lang, Erick Román-Pérez, Monica D’Arcy, Alex J. Freermerman, Charles M. Perou, and Melissa A. Troester

## CANCER THERAPY: PRECLINICAL

### Sorafenib Inhibits Cell Migration and Stroma-Mediated Bortezomib Resistance by Interfering B-cell Receptor Signaling and Protein Translation in Mantle Cell Lymphoma
Silvia Xargay-Torrent, Mónica López-Guerra, Arnau Monttraveta, Ifigenia Saborit-Villarroya, Laia Rosich, Alba Navarro, Patricia Pérez-Galán, Gael Roué, Elias Campo, and Dolors Colomer

### The Activation of MAPK in Melanoma Cells Resistant to BRAF Inhibition Promotes PD-L1 Expression That Is Reversible by MEK and PI3K Inhibition
Xiaofeng Jiang, Jun Zhou, Anita Giobbie-Hurder, Jennifer Wargo, and F. Stephen Hodi

### Dual Blockade of HER2 in HER2-Overexpressing Tumor Cells Does Not Completely Eliminate HER3 Function
Joan T. Garrett, Cammie R. Sutton, María Gabriela Kuba, Rebecca S. Cook, and Carlos L. Arteaga
A Potent Combination of the Novel PI3K Inhibitor, GDC-0941, with Imatinib in Gastrointestinal Stromal Tumor Xenografts: Long-Lasting Responses after Treatment Withdrawal

Giuseppe Floris, Agnieszka Wozniak, Raf Sciot, Haifo Li, Lori Friedman, Thomas Van Looy, Jasmin Wellens, Peter Vermaelen, Christophe M. Deroose, Jonathan A. Fletcher, Maria Debiec-Rychter, and Patrick Schöffski

Impairment of Glioma Stem Cell Survival and Growth by a Novel Inhibitor for Survivin–Ran Protein Complex

Hacer Guvenc, Marat S. Pavlyukov, Kaushal Joshi, Habibe Kurt, Yeshavanth K. Banasavadi-Siddegowda, Ping Mao, Christopher Hong, Ryosuke Yamada, Chang-Hyuk Kwon, Deepak Bhasin, Somsundaram Chettiar, Gaspar Kitange, In-Hee Park, Jann N. Sarkaria, Chenglong Li, Mihail I. Shakhparonov, and Ichiro Nakano

Targeting CXCR1/2 Significantly Reduces Breast Cancer Stem Cell Activity and Increases the Efficacy of Inhibiting HER2 via HER2-Dependent and -Independent Mechanisms


See commentary, p. 511

Resistance to BRAF Inhibition in BRAF-Mutant Colon Cancer Can Be Overcome with PI3K Inhibition or Demethylating Agents


Systemic Administration of a Novel Immune-Stimulatory Pseudovirion Suppresses Lung Metastatic Melanoma by Regionally Enhancing IFN-γ Production

Kotaro Saga, Katsumi Tamai, Takehiko Yamazaki, and Yasufumi Kaneda

Antitumor Activity of Cell-Permeable RUNX3 Protein in Gastric Cancer Cells

Junghee Lim, Tam Duong, Nga Do, Phuong Do, Jaetaek Kim, Hyunchol Kim, Wael EL-Rifai, H. Earl Ruley, and Daewoong Jo

Effective Assessment of egfr Mutation Status in Bronchoalveolar Lavage and Pleural Fluids by Next-Generation Sequencing

Fiamma Butilitta, Lara Felicioni, Maela Del Gramastro, Giampaolo Filice, Alessia Di Lorito, Sara Malatesta, Patrizia Viola, Irene Centi, Tommaso D’Antuono, Roberta Zappacosta, Sandra Rosini, Franco Cucurullo, and Antonio Marchetti

Molecular Markers in Key Steroidogenic Pathways, Circulating Steroid Levels, and Prostate Cancer Progression

Éric Lévesque, Shu-Pin Huang, Étienne Audet-Walsh, Louis Lacombe, Bo-Ying Bao, Yves Fradet, Isabelle Laverdière, Mélanie Roucho, Chao-Yuan Huang, Chia-Cheng Yu, Patrick Caron, and Chantal Guilleminette

Detection of miR-34a Promoter Methylation in Combination with Elevated Expression of c-Met and β-Catenin Predicts Distant Metastasis of Colon Cancer

Helge Siemens, Jens Neumann, Rene Jackstadt, Ulrich Mansmann, David Horst, Thomas Kirchner, and Heiko Hermeteking

γ-H2AX Foci Formation as a Pharmacodynamic Marker of DNA Damage Produced by DNA Cross-Linking Agents: Results from 2 Phase I Clinical Trials of SJG-136 (SG2000)


Serum CD163 and TARC as Disease Response Biomarkers in Classical Hodgkin Lymphoma

Kimberley Jones, Frank Varri, Colm Keane, Pauline Crooks, Jamie P. Nourse, Louise A. Seymour, David Gottlieb, David Ritchie, Devinder Gill, and Maher K. Gandhi

Clinical Cancer Research
ABOUT THE COVER

Cytology specimens may represent the only available material for molecular diagnosis in non–small cell lung cancer patients. When the number of neoplastic cells in these samples is very low in a large excess of nonneoplastic cells, the specimen is usually judged inadequate for mutation analysis with conventional methods. The cover figure shows a cytological smear obtained from a bronchoalveolar lavage with a limited number of tumor cells. Next-generation sequencing can greatly improve the detection of mutations in these cases. For details, see the article by Buttitta and colleagues on page 691 of this issue.