

**Highlights of This Issue 1777****SPECIAL FEATURES****CCR 20<sup>th</sup> Anniversary Commentary**

- 1779** CCR 20<sup>th</sup> Anniversary Commentary: The Development of Breast Cancer Molecular Subtyping  
Torsten O. Nielsen and Charles M. Perou

**CCR Translations**

- 1782** Identifying Rare Events in Rare Diseases  
Edward F. Attiyeh and John M. Maris  
*See related article, p. 1904*
- 1786** Intratumor Molecular and Phenotypic Diversity in Hepatocellular Carcinoma  
Jean-Charles Nault and Augusto Villanueva  
*See related article, p. 1951*

**Molecular Pathways**

- 1789** Molecular Pathways: Cbl Proteins in Tumorigenesis and Antitumor Immunity—Opportunities for Cancer Treatment  
Mariya S. Liyasova, Ke Ma, and Stanley Lipkowitz

**CCR Focus**

- 1796** Targeting RAS: The Elusive Prize  
Susan E. Bates
- 1797** KRAS as a Therapeutic Target  
Frank McCormick
- 1802** RAS Synthetic Lethal Screens Revisited: Still Seeking the Elusive Prize?  
Julian Downward
- 1810** Direct Attack on RAS: Intramolecular Communication and Mutation-Specific Effects  
Kendra Marcus and Carla Mattos
- 1819** Targeting RAS Membrane Association: Back to the Future for Anti-RAS Drug Discovery?  
 Adrienne D. Cox, Channing J. Der, and Mark R. Philips

- 1828** Metabolic Dependencies in RAS-Driven Cancers  
Alec C. Kimmelman

**CANCER THERAPY: CLINICAL**

- 1835** Combination of Lenalidomide and Rituximab Overcomes Rituximab Resistance in Patients with Indolent B-cell and Mantle Cell Lymphomas  
 Elise A. Chong, Tahamtan Ahmadi, Nicole A. Aqiu, Jakub Svoboda, Sunita D. Nasta, Anthony R. Mato, Kristy M. Walsh, and Stephen J. Schuster
- 1843** An Open-Label, Multicenter, Phase I/II Study of JNJ-40346527, a CSF-1R Inhibitor, in Patients with Relapsed or Refractory Hodgkin Lymphoma  
Bastian von Tresckow, Franck Morschhauser, Vincent Ribrag, Max S. Topp, Caly Chien, Shobha Seetharam, Regina Aquino, Sonja Kotoulek, Carla J. de Boer, and Andreas Engert
- 1851** Bevacizumab Preconditioning Followed by Etoposide and Cisplatin Is Highly Effective in Treating Brain Metastases of Breast Cancer Progressing from Whole-Brain Radiotherapy  
Yen-Shen Lu, Tom Wei-Wu Chen, Ching-Hung Lin, Dah-Cherng Yeh, Ling-Ming Tseng, Pei-Fang Wu, Kun-Ming Rau, Bang-Bin Chen, Ta-Chung Chao, Shu-Min Huang, Chiun-Sheng Huang, Tiffany Ting-Fang Shih, and Ann-Lii Cheng for the Taiwan Breast Cancer Consortium
- 1859** A Translational, Pharmacodynamic, and Pharmacokinetic Phase IB Clinical Study of Everolimus in Resectable Non-Small Cell Lung Cancer  
Taofeek K. Owonikoko, Suresh S. Ramalingam, Daniel L. Miller, Seth D. Force, Gabriel L. Sica, Jennifer Mendel, Zhengjia Chen, Andre Rogatko, Mourad Tighiouart, R. Donald Harvey, Sungjin Kim, Nabil F. Saba, Allan Pickens, Madhusmita Behera, Robert W. Fu, Michael R. Rossi, William F. Auffermann, William E. Torres, Rabih Bechara, Xingming Deng, Shi-Yong Sun, Haian Fu, Anthony A. Gal, and Fadlo R. Khuri
- 1869** Higher Risk of Infections with PI3K-AKT-mTOR Pathway Inhibitors in Patients with Advanced Solid Tumors on Phase I Clinical Trials  
 Saeed Raffi, Desamparados Roda, Elena Geuna, Begona Jimenez, Karim Rihawi, Marta Capelan, Timothy A. Yap, L. Rhoda Molife, Stanley B. Kaye, Johann S. de Bono, and Udai Banerji

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- 1877** Caffeine and Caffeic Acid Inhibit Growth and Modify Estrogen Receptor and Insulin-like Growth Factor I Receptor Levels in Human Breast Cancer



Ann H. Rosendahl, Claire M. Perks, Li Zeng, Andrea Markkula, Maria Simonsson, Carsten Rose, Christian Ingvar, Jeff M.P. Holly, and Helena Jernström

- 1888** First-in-Human Study of PF-05212384 (PKI-587), a Small-Molecule, Intravenous, Dual Inhibitor of PI3K and mTOR in Patients with Advanced Cancer



Geoffrey I. Shapiro, Katherine M. Bell-McGuinn, Julian R. Molina, Johanna Bendell, James Spicer, Eunice L. Kwak, Susan S. Pandya, Robert Millham, Gary Borzillo, Kristen J. Pierce, Lixin Han, Brett E. Houk, Jorge D. Gallo, Maria Alsina, Irene Braña, and Josep Taberero

- 1896** Bevacizumab in Patients with Nonsquamous Non-Small Cell Lung Cancer and Asymptomatic, Untreated Brain Metastases (BRAIN): A Nonrandomized, Phase II Study



Benjamin Besse, Sylvestre Le Moulec, Julien Mazières, Hélène Senellart, Fabrice Barlesi, Christos Chouaid, Eric Dansin, Henri Bérard, Lionel Falchero, Radj Gervais, Gilles Robinet, Anne-Marie Ruppert, Roland Schott, Hervé Léna, Christelle Clément-Duchêne, Xavier Quantin, Pierre Jean Souquet, Jean Trédaniel, Denis Moro-Sibilot, Maurice Pérol, Anne-Catherine Madroszyk, and Jean-Charles Soria

## PERSONALIZED MEDICINE AND IMAGING

- 1904** Revised Risk Estimation and Treatment Stratification of Low- and Intermediate-Risk Neuroblastoma Patients by Integrating Clinical and Molecular Prognostic Markers

André Oberthuer, Dilafuz Juraeva, Barbara Hero, Ruth Volland, Carolina Sterz, Rene Schmidt, Andreas Faldum, Yvonne Kahlert, Anne Engesser, Shahab Asgharzadeh, Robert Seeger, Miki Ohira, Akira Nakagawara, Paola Scaruffi, Gian Paolo Tonini, Isabelle Janoueix-Lerosey, Olivier Delattre, Gudrun Schleiermacher, Jo Vandesompele, Frank Speleman, Rosa Noguera, Marta Piqueras, Jean Bénard, Alexander Valent, Smadar Avigad, Isaac Yaniv, Richard G. Grundy, Monika Ortmann, Chunxuan Shao, Manfred Schwab, Roland Eils, Thorsten Simon, Jessica Theissen, Frank Berthold, Frank Westermann, Benedikt Brors, and Matthias Fischer

See related commentary, p. 1782

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## CANCER THERAPY: PRECLINICAL

- 1916** The Efficacy of the Wee1 Inhibitor MK-1775 Combined with Temozolomide Is Limited by Heterogeneous Distribution across the Blood-Brain Barrier in Glioblastoma

Jenny L. Pokorny, David Calligaris, Shiv K. Gupta, Dennis O. Iyekegbe Jr, Dustin Mueller, Katrina K. Bakken, Brett L. Carlson, Mark A. Schroeder, Debra L. Evans, Zhenkun Lou, Paul A. Decker, Jeanette E. Eckel-Passow, Vincenzo Pucci, Bennett Ma, Stuart D. Shumway, William F. Elmquist, Nathalie Y.R. Agar, and Jann N. Sarkaria

- 1925** Anti-S1P Antibody as a Novel Therapeutic Strategy for VEGFR TKI-Resistant Renal Cancer



Liang Zhang, Xiaoen Wang, Andrea J. Bullock, Marcella Callea, Harleen Shah, Jiaxi Song, Kelli Moreno, Barbara Visentin, Douglas Deutschman, David C. Alsop, Michael B. Atkins, James W. Mier, Sabina Signoretti, Manoj Bhasin, Roger A. Sabbadini, and Rupal S. Bhatt

## BIOLOGY OF HUMAN TUMORS

- 1935** MAP2K1 (MEK1) Mutations Define a Distinct Subset of Lung Adenocarcinoma Associated with Smoking

Maria E. Arcila, Alexander Drilon, Brooke E. Sylvester, Christine M. Lovly, Laetitia Borsu, Boris Reva, Mark G. Kris, David B. Solit, and Marc Ladanyi

- 1944** Very Long-term Survival Following Resection for Pancreatic Cancer Is Not Explained by Commonly Mutated Genes: Results of Whole-Exome Sequencing Analysis

Marco Dal Molin, Ming Zhang, Roeland F. de Wilde, Niki A. Ottenhof, Neda Rezaee, Christopher L. Wolfgang, Amanda Blackford, Bert Vogelstein, Kenneth W. Kinzler, Nickolas Papadopoulos, Ralph H. Hruban, Anirban Maitra, and Laura D. Wood

- 1951** Intratumor Heterogeneity in Hepatocellular Carcinoma

Juliane Friemel, Markus Rechsteiner, Lukas Frick, Friederike Böhm, Kirsten Struckmann, Michèle Egger, Holger Moch, Mathias Heikenwalder, and Achim Weber  
See related commentary, p. 1786

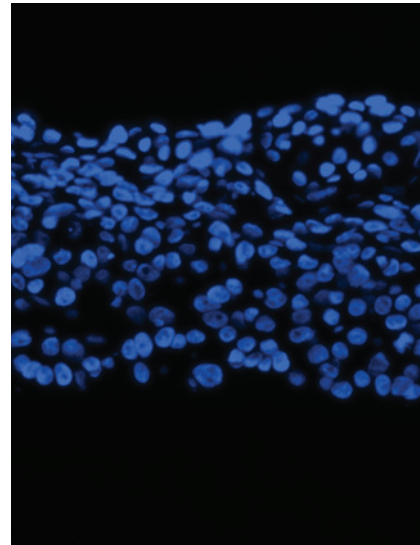
- 1962** Acquisition of Relative Interstrand Crosslinker Resistance and PARP Inhibitor Sensitivity in Fanconi Anemia Head and Neck Cancers

Anne J. Lombardi, Elizabeth E. Hoskins, Grant D. Foglesong, Kathryn A. Wikenheiser-Brokamp, Lisa Wiesmüller, Helmut Hanenberg, Paul R. Andreassen, Allison J. Jacobs, Susan B. Olson, Winifred W. Keeble, Laura E. Hays, and Susanne I. Wells

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## ABOUT THE COVER

The cover depicts nuclear fluorescence of a three-dimensional organotypic epithelial raft section generated from head and neck squamous cell carcinoma cells. The cells were derived from a patient with Fanconi anemia (FA) and corrected to achieve FA pathway competency. For details, see the article by Lombardi and colleagues on page 1962 of this issue.



# Clinical Cancer Research

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