

## Highlights of This Issue 921

## CELL CYCLE AND SENEESCENCE

**923** FoxO3a Mediates the Inhibitory Effects of the Antiepileptic Drug Lamotrigine on Breast Cancer Growth

Michele Pellegrino, Pietro Rizza, Alessandra Nigro, Rosangela Ceraldi, Elena Ricci, Ida Perrotta, Saveria Aquila, Marilena Lanzino, Sebastiano Andò, Catia Morelli, and Diego Sisci

## CELL DEATH AND SURVIVAL

**935** Therapeutic Effect of Quinacrine, an Antiprotozoan Drug, by Selective Suppression of p-CHK1/2 in p53-Negative Malignant Cancers

Soyoung Park, Ah-Young Oh, Jung-Hyun Cho, Min-Ho Yoon, Tae-Gyun Woo, So-mi Kang, Ho-Young Lee, Youn-Jin Jung, and Bum-Joon Park

## CHROMATIN, EPIGENETICS AND RNA REGULATION

**947** D-2-Hydroxyglutarate Is Necessary and Sufficient for Isocitrate Dehydrogenase 1 Mutant-Induced *MIR148A* Promoter Methylation

Tie Li, Christopher D. Cox, Byram H. Ozer, Nhung T. Nguyen, HuyTram N. Nguyen, Thomas J. Lai, Sichen Li, Fei Liu, Harley I. Kornblum, Linda M. Liau, Phioanh L. Nghiemphu, Timothy F. Cloughesy, and Albert Lai

## DNA DAMAGE AND REPAIR

**961** Olaparib-induced Adaptive Response Is Disrupted by FOXM1 Targeting that Enhances Sensitivity to PARP Inhibition

Pingping Fang, Jill A. Madden, Lisa Neums, Ryan K. Moulder, M. Laird Forrest, and Jeremy Chien

## METABOLISM

**974** Cholesterol Esterification Inhibition Suppresses Prostate Cancer Metastasis by Impairing the Wnt/ $\beta$ -catenin Pathway

Hyeon Jeong Lee, Jie Li, Renee E. Vickman, Junjie Li, Rui Liu, Abigail C. Durkes, Bennett D. Elzey, Shuhua Yue, Xiaoqi Liu, Timothy L. Ratliff, and Ji-Xin Cheng

## GENOMICS

**986** Nucleoside Diphosphate Kinase-3 (*NME3*) Enhances TLR5-Induced NF $\kappa$ B Activation

Kelly Flentie, Caleb Gonzalez, Brandon Kocher, Yue Wang, Hongtu Zhu, Jayne Marasa, and David Pivnicka-Worms

## ONCOGENES AND TUMOR SUPPRESSORS

**1000** USP28 Deficiency Promotes Breast and Liver Carcinogenesis as well as Tumor Angiogenesis in a HIF-independent Manner

Kati Richter, Teija Paakkola, Daniela Mennerich, Kateryna Kubaichuk, Anja Konzack, Heidi Ali Kippari, Nina Kozlova, Peppi Koivunen, Kirsi-Maria Haapasaari, Arja Jukkola-Vuorinen, Hanna-Riikka Teppo, Elitsa Y. Dimova, Risto Bloigu, Zoltan Szabo, Risto Kerkelä, and Thomas Kietzmann

**1013** TRPM7 Regulates AKT/FOXO1-Dependent Tumor Growth and Is an Independent Prognostic Indicator in Renal Cell Carcinoma

Zhijian Zhao, Mengping Zhang, Xiaolu Duan, Yiwen Chen, Ermao Li, Lianmin Luo, Wenqi Wu, Zhenwei Peng, Huijuan Qiu, and Guohua Zeng

**1024**  $\beta$ 4-Integrin/PI3K Signaling Promotes Tumor Progression through the Galectin-3-N-Glycan Complex

Yukiko Kariya, Midori Oyama, Yasuhiro Hashimoto, Jianguo Gu, and Yoshinobu Kariya

## SIGNAL TRANSDUCTION

**1035** Identification of Cdk1-LATS-Pin1 as a Novel Signaling Axis in Anti-tubulin Drug Response of Cancer Cells

Benjamin Yeung, Prem Khanal, Virja Mehta, Laura Trinkle-Mulcahy, and Xiaolong Yang

# Table of Contents

## 1046 PI3K Positively Regulates YAP and TAZ in Mammary Tumorigenesis Through Multiple Signaling Pathways

Yulei Zhao, Tess Montminy, Taha Azad, Elizabeth Lightbody, Yawei Hao, Sandip SenGupta, Eric Asselin, Christopher Nicol, and Xiaolong Yang

## TUMOR MICROENVIRONMENT

## 1059 ABCC1-Exported Sphingosine-1-phosphate, Produced by Sphingosine Kinase 1, Shortens Survival of Mice and Patients with Breast Cancer

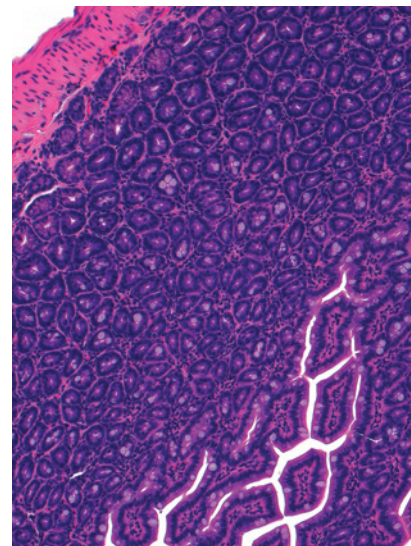
Akimitsu Yamada, Masayuki Nagahashi, Tomoyoshi Aoyagi, Wei-Ching Huang, Santiago Lima, Nitai C. Hait, Aparna Maiti, Kumiko Kida, Krista P. Terracina, Hiroshi Miyazaki, Takashi Ishikawa, Itaru Endo, Michael R. Waters, Qianya Qi, Li Yan, Sheldon Milstien, Sarah Spiegel, and Kazuaki Takabe

 AC icon indicates AuthorChoice

For more information please visit [www.aacrjournals.org](http://www.aacrjournals.org)

## ABOUT THE COVER

This study, by Park and colleagues (beginning on page 935), demonstrates the anti-cancer effect of quinacrine (QNC) via a novel pathway through the elimination of check point kinase 1/2 (Chk1/2) under p53 inactivated conditions. The cover image shows hematoxylin and eosin (H&E) staining of the Villin-Cre;p53<sup>+/LSL-R172H</sup> mouse intestine obtained from the QNC-injected mouse. In contrast to invasive or diffuse cancer cells found in the control group of mice, only overgrown epithelial cells were detected in QNC-injected mouse tissues. These results show QNC treatment displayed anti-tumor effects in a Villin-Cre;p53<sup>+/LSL-R172H</sup> intestinal cancer mouse model system and strongly support the notion that QNC would be a plausible treatment strategy for p53 impaired cancers.



# Molecular Cancer Research

16 (6)

*Mol Cancer Res* 2018;16:921-1070.

**Updated version** Access the most recent version of this article at:  
<http://mcr.aacrjournals.org/content/16/6>

**E-mail alerts** [Sign up to receive free email-alerts](#) related to this article or journal.

**Reprints and Subscriptions** To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at [pubs@aacr.org](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://mcr.aacrjournals.org/content/16/6>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.