


## Highlights of This Issue 1

## REVIEW

- 3**  **Tumor-Derived Cell Lines as Molecular Models of Cancer Pharmacogenomics**  
Andrew Goodspeed, Laura M. Heiser, Joe W. Gray, and James C. Costello

## CELL DEATH AND SURVIVAL

- 14** **Depleting Tumor-NQO1 Potentiates Anoikis and Inhibits Growth of NSCLC**  
Brian Madajewski, Michael A. Boatman, Gaurab Chakrabarti, David A. Boothman, and Erik A. Bey

## CHROMATIN, EPIGENETICS, AND RNA REGULATION

- 26** **Promoter Methylation Analysis Reveals That KCNA5 Ion Channel Silencing Supports Ewing Sarcoma Cell Proliferation**  
Katherine E. Ryland, Allegra G. Hawkins, Daniel J. Weisenberger, Vasu Punj, Scott C. Borinstein, Peter W. Laird, Jeffrey R. Martens, and Elizabeth R. Lawlor
- 35** **HDAC Inhibition for the Treatment of Epithelioid Sarcoma: Novel Cross Talk Between Epigenetic Components**  
Gonzalo Lopez, Yechun Song, Ryan Lam, Dennis Ruder, Chad J. Creighton, Hemant Kumar Bid, Kate Lynn Bill, Svetlana Bolshakov, Xiaoli Zhang, Dina Lev, and Raphael E. Pollock

## DNA DAMAGE AND REPAIR

- 44** **RAD51 and BRCA2 Enhance Oncolytic Adenovirus Type 5 Activity in Ovarian Cancer**  
Laura A. Tookman, Ashley K. Browne, Claire M. Connell, Gemma Bridge, Carin K. Ingemarsdotter, Suzanne Dowson, Atsushi Shibata, Michelle Lockley, Sarah A. Martin, and Iain A. McNeish

## ONCOGENES AND TUMOR SUPPRESSORS

- 56** **p53 Activity Dominates That of p73 upon *Mdm4* Loss in Development and Tumorigenesis**  
Mehmoosh Tashakori, Yun Zhang, Shunbin Xiong, M. James You, and Guillermina Lozano
- 66** **p53 Deletion or Hotspot Mutations Enhance mTORC1 Activity by Altering Lysosomal Dynamics of TSC2 and Rheb**  
Stuti Agarwal, Catherine M. Bell, Shirley M. Taylor, and Richard G. Moran
- 78** **Increased Expression of Beige/Brown Adipose Markers from Host and Breast Cancer Cells Influence Xenograft Formation in Mice**  
Rajan Singh, Meher Parveen, John M. Basgen, Sayeda Fazel, Meron F. Meshesha, Easter C. Thames, Brandis Moore, Luis Martinez, Carolyn B. Howard, Laurent Vergnes, Karen Reue, and Shehla Pervin

## SIGNAL TRANSDUCTION

- 93** **The CBM Complex Underwrites NF- $\kappa$ B Activation to Promote HER2-Associated Tumor Malignancy**  
Deng Pan, Yifan Zhu, Zhicheng Zhou, Tingting Wang, Harrison You, Changyong Jiang, and Xin Lin
- 103** **Tumor Cell-Derived Periostin Regulates Cytokines That Maintain Breast Cancer Stem Cells**  
Arthur W. Lambert, Chen Khuan Wong, Sait Ozturk, Panagiotis Papageorgis, Rekha Raghunathan, Yuriy Alekseyev, Adam C. Gower, Björn M. Reinhard, Hamid M. Abdolmaleky, and Sam Thiagalingam
- 114** **Sonic Hedgehog Signaling Drives Mitochondrial Fragmentation by Suppressing Mitofusins in Cerebellar Granule Neuron Precursors and Medulloblastoma**  
Anshu Malhotra, Abhinav Dey, Niyathi Prasad, and Anna Marie Kenney

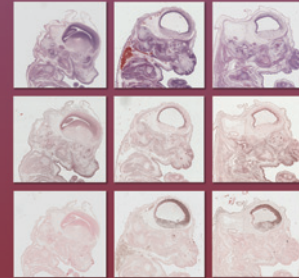
 AC icon indicates Author Choice

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

# Table of Contents

## ABOUT THE COVER

The development of the normal murine embryonic brain (left column) requires Mdm4 as *Mdm4* deficiency results in a porencephaly phenotype (middle column) that leads to decreased proliferation (middle row) and increased apoptosis (bottom row). While biochemically Mdm4 has a stronger affinity for p73 than p53, *p73* loss does not alter the phenotype (right column) which is completely rescued by *p53* deletion. Thus, even though both p53 and p73 are transcriptionally functional at this developmental stage and time point, the porencephaly phenotype is dominated by p53. See the article by Tashakori and colleagues (beginning on page 56) for more information.



# Molecular Cancer Research

14 (1)

*Mol Cancer Res* 2016;14:1-124.

**Updated version** Access the most recent version of this article at:  
<http://mcr.aacrjournals.org/content/14/1>

**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/14/1>.  
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.