# Molecular Cancer Research

## Table of Contents

### April 2018 • Volume 16 • Number 4

#### Highlights of This Issue  565

#### REVIEW

567  The Long (IncRNA) and Short (miRNA) of It: TGFβ-Mediated Control of RNA-Binding Proteins and Noncoding RNAs  
Harinarayanan Janakiraman, Reniqua P. House, Vamsi K. Gangaraju, J. Alan Diehl, Philip H. Howe, and Viswanathan Palanisamy

580  BET Proteins Exhibit Transcriptional and Functional Opposition in the Epithelial-to-Mesenchymal Transition  
Guillaume P. Andrieu and Gerald V. Denis

587  Mitotically-Associated lncRNA (MANCR) Affects Genomic Stability and Cell Division in Aggressive Breast Cancer  
Kirsten M. Tracy, Coralée E. Tyé, Prachi N. Ghule, Heidi L.H. Malaby, Jason Stumpff, Janet L. Stein, Gary S. Stein, and Jane B. Lian

### DNA DAMAGE AND REPAIR

634  Overt Increase of Oxidative Stress and DNA Damage in Murine and Human Colitis and Colitis-Associated Neoplasia  
Adrian Frick, Vineeta Khare, Gregor Paul, Michaela Lang, Franziska Ferk, Siegfried Knausmüller, Andrea Beer, Georg Oberhuber, and Christoph Gasche

### GENOMICS

643  Multigene Profiling of CTCs in mCRPC Identifies a Clinically Relevant Prognostic Signature  

### METABOLISM

655  Microenvironment-Derived Regulation of HIF Signaling Drives Transcriptional Heterogeneity in Glioblastoma Multiforme  
Dieter Henrik Heiland, Annette Gaebelstein, Melanie Borries, Jakob Wörner, Nils Pompe, Pamela Franco, Sabrina Heynckes, Mark Bartholomae, Darren O. Aulin, Maria Stella Carro, Marco Prinz, Stefan Weber, Irina Mader, Daniel Delev, and Oliver Schnell

### ONCOGENES AND TUMOR SUPPRESSORS

669  Characterization and Evidence of the miR-888 Cluster as a Novel Cancer Network in Prostate  
Tsuyoshi Hasegawa, Garrison J. Glavich, Mary Pahuski, Aleena Short, O. John Semmes, Lifang Yang, Vitold Galkin, Richard Drake, and Aurora Esquela-Kerscher

---

Downloaded from mcr.aacrjournals.org on July 25, 2021. © 2018 American Association for Cancer Research.
682  The mTOR Targets 4E-BP1/2 Restrain Tumor Growth and Promote Hypoxia Tolerance in PTEN-driven Prostate Cancer
Mei Ding, Theodorus H. Van der Kwast, Ravi N. Vellanki, Warren D. Foltz, Trevor D. McKee, Nahum Sonenberg, Pier P. Pandolfi, Marianne Koritzinsky, and Bradley G. Wouters

696  Methylation of the HOXA10 Promoter Directs miR-196b-5p–Dependent Cell Proliferation and Invasion of Gastric Cancer Cells

707  Cancer Stem Cell Phenotypes in ER⁺ Breast Cancer Models Are Promoted by PELP1/AIB1 Complexes
Thu H. Truong, Hsiangyu Hu, Nuri A. Temiz, Kyla M. Hagen, Brian J. Girard, Nicholas J. Brady, Kathryn L. Schwertfeger, Carol A. Lange, and Julie H. Ostrander

720  AR Expression in Breast Cancer CTCs Associates with Bone Metastases

728  Agonist-induced CXCR4 and CB2 Heterodimerization Inhibits Gα13/RhoA-mediated Migration
Kisha A. Scarlett, El-Shaddai Z. White, Christopher J. Coke, Jada R. Carter, Latoya K. Bryant, and Cimona V. Hinton

740  Correction: Heparanase Promotes Glioma Progression and Is Inversely Correlated with Patient Survival

ABOUT THE COVER
This Rapid Impact, by Andrieu and Denis (beginning on page 580), establishes that bromodomain and extraterminal (BET) proteins exert distinct and opposing transcriptional controls on EMT in breast cancer. The EMT is a developmental program that cancer cells often activate to acquire a highly plastic phenotype, notably eliciting metastasis, adaptation to the environment or chemoresistance. The cover image is an artistic rendering that shows epithelial breast cancer cells, exhibiting tight junctions enriched in the protein E-cadherin (staining). Cancer cells undergoing EMT lose their cuboidal shape, disassemble their tight junctions, hallmarks of their epithelial nature, to acquire a plastic mesenchymal phenotype. The study shows that BET proteins functionally oppose each other in the regulation of EMT. BRD2 positively controls several key EMT transcription programs, whereas BRD3 and BRD4 repress them. BET protein inhibitors obtained promising results for the treatment of some cancers, including breast cancer, yet little is known about the individual functions of each member of this particular family. To this end, more research is needed and will lead to the elaboration of improved strategies for cancer treatment.