

MOLECULAR CANCER RESEARCH

TABLE OF CONTENTS

HIGHLIGHTS

- 1 Selected Articles from This Issue

REVIEWS

- 3 **Crucial Functions of the JMJD1/KDM3 Epigenetic Regulators in Cancer**
Yuan Sui, Ruicai Gu, and Ralf Janknecht
- 14 **CYLD Alterations in the Tumorigenesis and Progression of Human Papillomavirus–Associated Head and Neck Cancers**
Zhibin Cui, Hyunseok Kang, Jennifer R. Grandis, and Daniel E. Johnson
- 25 **Cell Adhesion Molecules in Plasticity and Metastasis**
Jessica A. Smart, Julia E. Oleksak, and Edward J. Hartsough

PERSPECTIVE

- 38 **How *Drosophila* Can Inform the Emerging Paradigm of the Role of Antioxidants in Cancer**
Leslie J. Saucedo, Rosalie E. Triolo, and Kate E. Segar

*MCR*RapidIMPACT

- 42 **Progesterone Receptor Is a Haploinsufficient Tumor-Suppressor Gene in Cervical Cancer**
Yuri Park, Seunghan Baik, Charles Ho, Chin-Yo Lin, and Sang-Hyuk Chung

CANCER GENES AND NETWORKS

- 48 **A Novel miR-146a-POU3F2/SMARCA5 Pathway Regulates Stemness and Therapeutic Response in Glioblastoma**
A/C Tiantian Cui, Erica H. Bell, Joseph McElroy, Kevin Liu, Ebin Sebastian, Benjamin Johnson, Pooja Manchanda Gulati, Aline Paixao Becker, Ashley Gray, Marjolein Geurts, Depika Subedi, Linlin Yang, Jessica L. Fleming, Wei Meng, Jill S. Barnholtz-Sloan, Monica Venere, Qi-En Wang, Pierre A. Robe, S. Jaharul Haque, and Arnab Chakravarti

- 61 **Metformin Mitigates DPP-4 Inhibitor-Induced Breast Cancer Metastasis via Suppression of mTOR Signaling**
Emi Kawakita, Fan Yang, Asako Kumagai, Yuta Takagaki, Munehiro Kitada, Yasuo Yoshitomi, Takayuki Ikeda, Yuka Nakamura, Yasuhiro Ishigaki, Keizo Kanasaki, and Daisuke Koya

- 74 ***Helicobacter pylori* Induces a Novel NF- κ B/LIN28A/let-7a/hTERT Axis to Promote Gastric Carcinogenesis**
A/C Li Shen, Jiping Zeng, Lin Ma, Shuyan Li, Chunyan Chen, Jihui Jia, and Xiuming Liang

- 86 **PCBP2 Posttranscriptional Modifications Induce Breast Cancer Progression via Upregulation of UFD1 and NT5E**
Xiaonan Wang, Qianying Guo, Hao Wang, Xiaodong Yuan, Bijun Wang, Peter E. Lobie, Tao Zhu, Sheng Tan, and Zhengsheng Wu

CELL FATE DECISIONS

- 99 **The Relative Expression of ER α Isoforms ER α 66 and ER α 36 Controls the Cellular Response to 24R,25-Dihydroxyvitamin D3 in Breast Cancer**
Anjali Verma, D. Joshua Cohen, Thomas W. Jacobs, Barbara D. Boyan, and Zvi Schwartz

GENOME MAINTENANCE

- 112 **p53 Is Not Required for High CIN to Induce Tumor Suppression**
Laura C. Funk, Jun Wan, Sean D. Ryan, Charanjeet Kaur, Ruth Sullivan, Avtar Roopra, and Beth A. Weaver

METABOLISM

- 124 **Long-Chain Acyl-CoA Synthetase 4-Mediated Fatty Acid Metabolism Sustains Androgen Receptor Pathway-Independent Prostate Cancer**
Yongjie Ma, Xiaohan Zhang, Omar Awad Alsaidan, Xiangkun Yang, Essilvo Sulejmani, Junyi Zha, Zanna Beharry, Hanwen Huang, Michael Bartlett, Zachary Lewis, and Houjian Cai

TABLE OF CONTENTS

SIGNAL TRANSDUCTION AND FUNCTIONAL IMAGING

- 136** **Extracellular Matrix-Bound FGF2 Mediates Estrogen Receptor Signaling and Therapeutic Response in Breast Cancer**
Josh W. DiGiacomo, Inês Godet,
Michael Trautmann-Rodriguez, and Daniele M. Gilkes

TUMOR MICROENVIRONMENT AND IMMUNOBIOLOGY

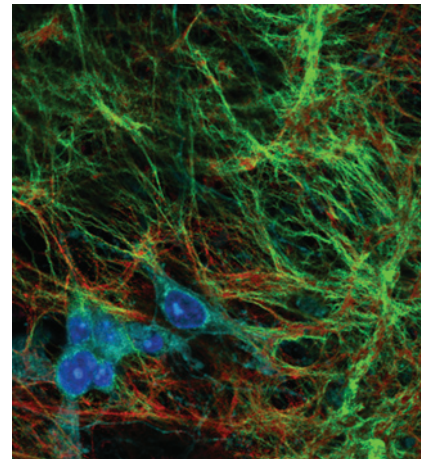
- 150** **Heparan Sulfate Synthesized by *Ext1* Regulates Receptor Tyrosine Kinase Signaling and Promotes Resistance to EGFR Inhibitors in GBM**
Yuki Ohkawa, Anna Wade, Olle R. Lindberg,
Katharine Y. Chen, Vy M. Tran, Spencer J. Brown,
Anupam Kumar, Mausam Kalita, C. David James, and
Joanna J. Phillips
- 162** **Acknowledgment to Reviewers**

AC icon indicates AuthorChoice

For more information please visit www.aacrjournals.org

ABOUT THE COVER

The extracellular matrix (ECM) is known to both interact with tumor and stromal cells and mediate their interactions with one another, with significant implications for disease progression and response to therapy. The cover depicts multicolor immunofluorescence of MCF7 breast cancer cells cultured inside a fibroblast-derived, decellularized ECM scaffold. The scaffold contains fibrillar ECM proteins including collagen I (green) and fibronectin (red). Cancer cells were stained with DAPI (DNA – blue) and Phalloidin (F-actin – cyan). Using this model, the authors demonstrated that breast cancer cells receive cues from both the ECM fibers and other bound growth factors with significant implications for estrogen receptor activity and response to antiestrogens. For more information, see the Highlight on page 1 and the article on page 136.



Molecular Cancer Research

19 (1)

Mol Cancer Res 2021;19:1-164.

Updated version Access the most recent version of this article at:
<http://mcr.aacrjournals.org/content/19/1>

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.

Permissions To request permission to re-use all or part of this article, use this link <http://mcr.aacrjournals.org/content/19/1>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.