# MOLECULAR CANCER THERAPEUTICS

## TABLE OF CONTENTS

### HIGHLIGHTS

1. **Selected Articles from This Issue**

### REVIEW

3. **Targeting PIM Kinases to Overcome Therapeutic Resistance in Cancer**
   Rachel K. Toth and Noel A. Warfel

### SMALL MOLECULE THERAPEUTICS

11. **Rapid Induction of the Unfolded Protein Response and Apoptosis by Estrogen Mimic TTC-352 for the Treatment of Endocrine-Resistant Breast Cancer**

26. **Targeting Oncogene mRNA Translation in B-Cell Malignancies with eFT226, a Potent and Selective Inhibitor of elf4A**
   Peggy A. Thompson, Boretth Eam, Nathan P. Young, Sarah Fish, Joan Chen, Maria Barrera, Haleigh Howard, Eric Sung, Ana Parra, Jocelyn Staunton, Gary G. Chiang, Adina Gerson-Gurwitz, Christopher J. Wegerski, Andres Nevarez, Jeff Clarine, Samuel Sperry, Alan Xiang, Christian Nilewski, Garrick K. Packard, Theodore Michels, Chinh Tran, Paul A. Sprengeler, Justin T. Ernst, Siegfried H. Reich, and Kevin R. Webster

50. **Repurposing the Antidepressant Sertraline as SHMT Inhibitor to Suppress Serine/Glycine Synthesis–Addicted Breast Tumor Growth**

64. **Reprogramming of Nucleotide Metabolism Mediates Synergy between Epigenetic Therapy and MAP Kinase Inhibition**
   Tatiana Shorstova, Jie Su, Tiejun Zhao, Michael Dahabieh, Matthew Leibovitch, Marianna De Sa Tavares Russo, Daina Avizonis, Shivshankari Rajkumar, Ian R. Watson, Sonia V. del Rincón, Wilson H. Miller Jr, William D. Foulkes, and Michael Witcher

76. **Disruption of SND1-MTDH Interaction by a High Affinity Peptide Results in SND1 Degradation and Cytotoxicity to Breast Cancer Cells In Vitro and In Vivo**
   Peng Li, Yunjiao He, Teng Chen, Kit-Ying Choy, Tsun Sing Chow, Iris L.K. Wong, Xinqin Yang, Wenqin Sun, Xiaochun Su, Tak-Hang Chan, and Larry M.C. Chow

85. **Targeting Dormant Ovarian Cancer Cells In Vitro and in an In Vivo Mouse Model of Platinum Resistance**
   Zhiqing Huang, Eiji Kondoh, Zachary R. Visco, Tsukasa Baba, Noriomi Matsumura, Emma Dolan, Regina S. Whitaker, Ikuo Konishi, Shingo Fujii, Andrew Berchuck, and Susan K. Murphy
ABOUT THE COVER

In this issue, Su, Chhabra, and colleagues demonstrate that PLK1, a mitotic regulator, and NOTCH1, a protein involved in cell fate determination, are positively correlated in melanoma and associated with patient survival. Further, combined inhibition of PLK1 and NOTCH1 was found to result in synergistic anti-proliferative effects. The cover image represents a tissue core from an in-house human melanoma tissue microarray containing multiple cases of melanomas and benign nevi. The cores were stained for S100 (green), PLK1 (red), NOTCH1 (orange), and DAPI (blue), followed by a multispectral quantitative fluorescence imaging analysis using Vectra scanner coupled with Nuance and InForm software. Read the full article on page 161.