This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Jumonji domain containing 2C (JMJD2C; KDM4C)	Cell culture, mouse and patient sample studies suggest inhibiting JMJD2C could help treat breast cancer. In a human cancer cell line, JMJD2C bound to and functioned as a coactivator of hypoxia-inducible factor 1 α (HIF1A; HIF1 α), a known driver of breast cancer metastasis. In a xenograft mouse model of breast cancer, small hairpin RNA against <i>JMJD2C</i> decreased tumor growth and metastasis compared with control shRNA. In patient breast tissue samples, JMJD2C expression was greater in carcinoma samples than in normal tissue and correlated with higher tumor grade. Next steps could include testing small molecule JMJD2C inhibitors in cancer cell lines.	Patent and licensing status undisclosed	Luo, W. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online Nov. 5, 2012; doi:10.1073/pnas.1217394109 Contact: Gregg L. Semenza, The Johns Hopkins University School of Medicine, Baltimore, Md. e-mail: gsemenza@jhmi.edu
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