

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Brain cancer	Aldehyde dehydrogenase 1 family member A3 (ALDH1A3)	<p>Patient sample and mouse studies suggest inhibiting ALDH1A3 could help treat a subset of high-grade gliomas. In glioma stem cell cultures derived from 40 samples from patients with high-grade glioma, analysis of gene expression signatures identified two distinct subsets of glioma stem cells—mesenchymal and proneural. In intracranial mouse xenograft models, mesenchymal glioma stem cells were resistant to radiation therapy and showed greater proliferation than proneural glioma stem cells. In the glioma stem cells, small hairpin RNA-mediated <i>ALDH1A3</i> knockdown inhibited growth of mesenchymal but not proneural glioma stem cells. Next steps include developing inhibitors of ALDH1A3.</p> <p>SciBX 6(21); doi:10.1038/scibx.2013.511 Published online May 30, 2013</p>	Patent application filed; available for licensing	<p>Mao, P. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online May 6, 2013; doi:10.1073/pnas.1221478110 Contact: Ichiro Nakano, The Ohio State University, Columbus, Ohio e-mail: ichiro.nakano@osumc.edu Contact: Robert W. Sobol, University of Pittsburgh School of Medicine, Pittsburgh, Pa. e-mail: rws9@pitt.edu Contact: Shi-Yuan Cheng, Northwestern University Feinberg School of Medicine, Chicago, Ill. e-mail: shiyuan.cheng@northwestern.edu</p>