This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
MRI detection of 2-hydroxyglutarate (2HG) to diagnosis and monitor <i>isocitrate dehydrogenase 1</i> (<i>IDH1</i>)-mutant gliomal tumors	Human and primary tumor studies suggest MRI could help diagnose and monitor treatment responses of <i>IDH1</i> -mutant gliomal tumors. Low-grade gliomas expressing <i>IDH1</i> mutations have higher 2HG levels than gliomas expressing wild-type <i>IDH1</i> or normal brain tissue. In the first study, 2D MRI distinguished 2HG from other metabolites in the brains of patients and healthy controls to correctly detect mutant <i>IDH1</i> gliomas, wild-type <i>IDH1</i> gliomas and absence of glioma. In the second study, 1D MRI identified associations in primary glioma tumor samples between 2HG levels and cellular density, degree of abnormal vasculature and other features of tumor progression. Future studies could include using the MRI methods to monitor the treatment response of <i>IDH1</i> -mutant tumors by measuring the 2HG-related tumor features. SciBX 5(4); doi:10.1038/scibx.2012.112 Published online Jan. 26, 2012	Patent and licensing status unavailable	Andronesi, O.C. <i>et al. Sci. Transl. Med.</i> ; published online Jan. 11, 2012; doi:10.1126/scitranslmed.3002693 Contact: Ovidiu C. Andronesi, Massachusetts General Hospital and Harvard Medical School, Boston, Mass. e-mail: ovidiu@nmr.mgh.harvard.edu Elkhalel, A. <i>et al. Sci. Transl. Med.</i> ; published online Jan. 11, 2012; doi:10.1126/scitranslmed.3002796 Contact: Sarah J. Nelson, University of California, San Francisco, Calif. e-mail: sarah.nelson@ucsf.edu