This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Low-copy <i>piggyBac</i> (<i>PB</i>) mutagenesis screening to identify mutated genes that drive cancer	<p>Low-copy <i>PB</i> screening in mice could help identify genes that drive cancer when mutated. Identifying oncogenic driver genes from high-copy transposon mutagenesis has been difficult because of high background mutation rates. In mice, the low-copy <i>PB</i> mutagenesis system, which generates about four insertion mutations per tumor, was used to screen for drivers of mutant <i>BRAF</i>-expressing melanoma growth. Sequencing identified insertions in 2 known melanoma drivers, <i>microphthalmia-associated transcription factor</i> (<i>Mitf</i>) and <i>cyclin dependent kinase inhibitor 2A</i> (<i>Cdkn2a</i>; <i>Ink4a</i>; <i>Arf</i>; <i>p16INK4a</i>), and 36 previously undescribed candidate driver genes. Next steps could include using the screening system for other types of cancer.</p> <p>SciBX 6(38); doi:10.1038/scibx.2013.1073 Published online Oct. 3, 2013</p>	Patent and licensing information unavailable	<p>Ni, T.K. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Sept. 3, 2013; doi:10.1073/pnas.1314435110 Contact: Tian Xu, Yale School of Medicine, New Haven, Conn. e-mail: tian.xu@yale.edu</p>