This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Mouse model of phosphoinositide 3-kinase catalytic subunit α -polypeptide (<i>PIK3CA</i> ; <i>p110α</i>)-mutant, HER2 (EGFR2; ErbB2; neu) ⁺ breast cancer	<p>A mouse model of HER2⁺ breast cancer with a <i>PIK3CA</i> mutation could be useful for developing combination therapies to treat the disease. Mice with mammary epithelium-specific overexpression of human HER2 and a mutant form of <i>PIK3CA</i> had tumors that grew more aggressively and metastasized more readily than tumors with mammary epithelium-specific overexpression of HER2 alone. In the mice, the HER2⁺, <i>PIK3CA</i>-mutant tumors were resistant to the combination of anti-HER2 antibodies Herceptin trastuzumab and Perjeta pertuzumab. Next steps include using these mice to test inhibitors of mutant <i>PIK3CA</i> in combination with HER2 antagonists.</p> <p>Roche's Genentech Inc. unit markets Herceptin to treat metastatic breast and gastric cancers and Perjeta to treat metastatic breast cancer.</p> <p>SciBX 6(38); doi:10.1038/scibx.2013.1077 Published online Oct. 3, 2013</p>	Patent and licensing status undisclosed	<p>Hanker, A.B. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 12, 2013; doi:10.1073/pnas.1303204110 Contact: Carlos L. Arteaga, Vanderbilt University, Nashville, Tenn. e-mail: carlos.arteaga@vanderbilt.edu Contact: Jean J. Zhao, Harvard Medical School, Boston, Mass. e-mail: jean_zhao@dfci.harvard.edu</p>