This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
<i>In vivo</i> , pH-sensitive fluorescent imaging of viable cancer cells	<p>pH-sensitive fluorescent probes for the selective <i>in vivo</i> labeling of viable tumor cells may be a useful complement to resection surgery and diagnostic imaging procedures in cancer. The boron dipyrromethene-based probes are conjugated to a mAb targeting cell surface proteins and are only activated within the acidic microenvironment of lysosomes—a hallmark of viable cancer cells. In a proof-of-concept study, a Herceptin-conjugated probe imaged Her2 (ErbB2)-overexpressing lung metastases in mice. Next steps include modifying the probe core to increase the strength of the emitted signal and incorporating the probe into a fluorescence-guided surgery or endoscopy system for use in humans.</p> <p>Herceptin trastuzumab, a humanized mAb against HER2 from Genentech Inc. and Roche, is marketed to treat breast cancer.</p> <p>SciBX 1(45); doi:10.1038/scibx.2008.1118 Published online Dec. 18, 2008</p>	<p>Multiple patents filed covering design and synthesis of the fluorophore, the pH-sensitive probe and their uses in detecting biologically active cells, including tumors, <i>in vivo</i>; available for licensing from the University of Tokyo Technology Licensing Organization and the NIH Office of Technology Transfer</p>	<p>Urano, Y. <i>et al. Nat. Med.</i>; published online Dec. 7, 2008; doi:10.1038/nm.1854</p> <p>Contact: Yasuteru Urano, University of Tokyo, Japan e-mail: urano@mol.f.u-tokyo.ac.jp</p>