This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
β -Lactamase (LACTB) reporter enzyme fluorescence (REF) to detect tuberculosis (TB) infection	<p><i>In vitro</i> and mouse studies suggest that a fluorescent substrate of the <i>Mycobacterium tuberculosis</i> enzyme LACTB could be a useful TB diagnostic. In cultured <i>M. tuberculosis</i>-infected mouse macrophages, as compared with uninfected cells, the fluorescent substrate generated a signal that correlated with bacterial number. In <i>M. tuberculosis</i>-infected mice, the fluorescence signal correlated with bacterial number. Also in the infected mice, a TB therapeutic led to a decreased fluorescence signal compared with no treatment. Next steps include further development of <i>in vitro</i> assays using the fluorescent substrate.</p> <p>At least eight companies have LACB inhibitors in development stages ranging from preclinical to marketed for a variety of bacterial infections.</p> <p>SciBX 3(26); doi:10.1038/scibx.2010.810 Published online July 1, 2010</p>	<p>Patent application filed; Global BioDiagnostics Corp. has licensed use of technology for all <i>in vitro</i> applications to an undisclosed party; <i>in vivo</i> applications of technology available for licensing through Texas A&M University</p>	<p>Kong, Y. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 17, 2010; doi:10.1073/pnas.1000643107 Contact: Jeffrey D. Cirillo, Texas A&M University, College Station, Texas e-mail: jdcirillo@medicine.tamhsc.edu Contact: Jianghong Rao, Stanford University, Stanford, Calif. e-mail: jrao@stanford.edu</p>