This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
Luciferase-based indicators of drugs (LUCIDs) for point-of-care monitoring	<p>A luciferase-based assay could be used to quickly and quantitatively assess drug concentrations in patient samples. LUCIDs have three components: a receptor protein that binds the drug of interest, a luciferase and a synthetic molecule containing a fluorophore that is coupled to a ligand that also binds the receptor. The drug concentration can be calculated using the ratio of the luciferase signal to the fluorophore signal, which is enhanced when the ligand binds the receptor and is reduced when the drug displaces the ligand. In patient sera samples, individual LUCIDs designed to detect six different drugs quantified drug levels based on titrated emission data collected with a digital camera. Next steps include developing test strips and a handheld reader device to assess drug concentrations from a drop of blood.</p> <p>SciBX 7(27); doi:10.1038/scibx.2014.812 Published online July 17, 2014</p>	Patent application filed covering the LUCID technology; unavailable for licensing	<p>Griss, R. <i>et al. Nat. Chem. Biol.</i>; published online June 8, 2014; doi:10.1038/nchembio.1554</p> <p>Contact: Kai Johnsson, Swiss Federal Institute of Technology Lausanne, Lausanne, Switzerland e-mail: kai.johnsson@epfl.ch</p>