This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Instrumentation			
Microfluidic electrochemical detector for <i>in vivo</i> continuous monitoring (MEDIC) of therapeutics	<p>MEDIC may allow real-time, continuous monitoring of therapeutics in patients. MEDIC relies on an electrochemical, aptamer-based sensor. In live rats with blood drawn into a detection chip over 4.5 hours via a catheter, a doxorubicin-specific aptamer probe responded dose dependently to the chemotherapeutic but did not respond to vehicle. In a similar rat model, a kanamycin-specific aptamer probe had a dose-dependent response to the compound. Next steps could include adapting MEDIC for longer-term operation over days or weeks and testing whether MEDIC can improve clinical outcomes by allowing personalized dosing.</p> <p>SciBX 7(2); doi:10.1038/scibx.2014.73 Published online Jan. 16, 2014</p>	Patent and licensing status unavailable	<p>Ferguson, B.S. <i>et al. Sci. Transl. Med.</i>; published online Nov. 27, 2013; doi:10.1126/scitranslmed.3007095 Contact: Hyongsok Tom Soh, University of California, Santa Barbara, Calif. e-mail: tsoh@engr.ucsb.edu</p>