This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Microelectrode nanostructuring for modulating biodetection sensitivity of chip-based detection systems	<p>Nanostructured microelectrodes could be useful for increasing the sensitivity of chip-based detection systems. Electrodeposition created nanostructures on the surface of palladium microelectrodes. In a nucleic acid detection study, the nanostructured microelectrodes detected DNA hybridization at a concentration of 10 femtomolar. The detection limit for the nanostructured microelectrode was estimated to be 1 femtomolar compared with about 100 femtomolar for a conventional microelectrode. Multiple nanostructured microelectrodes have been evaluated, and future studies could show that certain types of nanostructuring might achieve levels of nucleic acid detection comparable to those for PCR.</p> <p>SciBX 2(41); doi:10.1038/scibx.2009.1546 Published online Oct. 22, 2009</p>	<p>Assay used for readout of the chip-based system is patented; additional patent applications filed covering use of chip-based systems for protein and cancer biomarker analysis; available for licensing from the University of Toronto</p>	<p>Soleymani, L. <i>et al. Angew. Chem. Int. Ed.</i>; published online Oct. 6, 2009; doi:10.1002/anie.200902439 Contact: Shana O. Kelley, University of Toronto, Toronto, Ontario, Canada e-mail: shana.kelley@utoronto.ca Contact: Edward H. Sargent, same affiliation as above e-mail: ted.sargent@utoronto.ca</p>