This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
High-performance liquid chromatography (HPLC)-single-crystal diffraction (SCD) analysis to guide drug development	HPLC-SCD analysis could be used to determine structures of noncrystalline compounds or proteins to guide drug development. Networked porous metal complexes, dubbed crystalline sponges, adsorbed and provided regular order to noncrystalline compounds collected from HPLC fractions. X-ray crystallography was then used to provide the molecular structure of the guest molecules. As proof of concept, the HPLC-SCD analysis revealed the structure of three polymethoxyflavones extracted from orange peel and the structure and absolute configuration of miyakosyne A isolated from a marine sponge. Next steps include designing various crystalline sponges to accommodate proteins and peptides and using the current sponges for medicinal compound characterization and metabolic analysis. SciBX 6(15); doi:10.1038/scibx.2013.378 Published online April 18, 2013	Patent applications filed; technique licensed by X-ray equipment company Rigaku Corp.	Inokuma, Y. <i>et al. Nature</i> ; published online March 27, 2013; doi:10.1038/nature11990 Contact: Makoto Fujita, The University of Tokyo, Tokyo, Japan e-mail: mfujita@appchem.t.u-tokyo.ac.jp