This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Cross-linked hydrogels for ultrasound-induced drug delivery	<p><i>In vitro</i> and mouse studies suggest ultrasound-triggered drug release from implanted polymers could improve chemotherapeutic efficacy. Cross-linked, alginate-based polymer hydrogels loaded with mitoxantrone released their drug payload only in response to pulsatile ultrasound triggers. Hydrogels were also designed that could release compressed oligonucleotides, peptides and other small molecules. In a mouse xenograft model of human breast cancer, daily ultrasonic pulses that enabled controlled, intermittent drug release reduced tumor volume and improved survival compared with the same overall dose delivered in a sustained-release format. Next steps could include identifying optimized dose and release timing for clinical testing. Mitoxantrone is a generic anthracenedione chemotherapeutic.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.909 Published online Aug. 7, 2014</p>	Patent and licensing status unavailable	<p>Huebsch, N. <i>et al.</i> <i>Proc. Natl. Acad. Sci. USA</i>; published online June 24, 2014; doi:10.1073/pnas.1405469111 Contact: David J. Mooney, Harvard University School of Engineering and Applied Sciences, Cambridge, Mass. e-mail: mooneyd@seas.harvard.edu</p>