This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Matrix metalloproteinase 2 (MMP2)-activated, chemotherapeutic nanocarriers for targeted drug delivery	<p>MMP2-activated nanocarriers could provide a drug delivery vehicle for cancer chemotherapies. The nanopreparation consists of a hydrophilic, PEGylated micelle shell that is cleaved by MMP2 and releases paclitaxel bound to a cell-permeable Tat peptide. In human lung carcinoma cells, the nanopreparation had cytotoxicity comparable to that of free paclitaxel and was less toxic than paclitaxel in healthy cardiomyocytes. In mice with non-small cell lung cancer (NSCLC) xenografts, the nanopreparation showed better tumor accumulation and antitumor activity than nontargeted control micelles, conventional paclitaxel-carrying micelles and free paclitaxel. Next steps include testing the nanocarriers in additional tumor models.</p> <p>SciBX 6(40); doi:10.1038/scibx.2013.1142 Published online Oct. 17, 2013</p>	Patent status undisclosed; available for licensing	<p>Zhu, L. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Sept. 23, 2013; doi:10.1073/pnas.1304987110 Contact: Vladimir P. Torchilin, Northeastern University, Boston, Mass. e-mail: v.torchilin@neu.edu</p>