This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
Melanin-based nanoparticles for multimodal imaging of melanoma tumors	<p>Melanin-based nanoparticles could be useful for imaging melanoma tumors in patients. The surfaces of water-soluble melanin nanoparticles were functionalized with a peptide that targeted tumor-associated integrin $\alpha_5\beta_3$ (CD51/CD61) and polyethylene glycol chains that conferred metal ion-chelating properties. In mice bearing xenograft melanoma tumors, the nanoparticles enabled photoacoustic tumor imaging, and when chelated with Fe^{3+} or the radionuclide $^{64}\text{Cu}^{2+}$, the nanoparticles enabled tumor imaging with multimodal MRI or PET, respectively. Next steps include investigating the <i>in vivo</i> toxicity, pharmacokinetic and clearance properties of the nanoparticles.</p> <p>SciBX 7(43); doi:10.1038/scibx.2014.1280 Published online Nov. 6, 2014</p>	Patent application filed; available for licensing	<p>Fan, Q. <i>et al. J. Am. Chem. Soc.</i>; published online Oct. 7, 2014; doi:10.1021/ja505412p Contact: Zhen Cheng, Stanford University, Stanford, Calif. e-mail: zcheng@stanford.edu</p>