



This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
Monitoring oxygen levels in hypoxic tissues with a solid MRI contrast agent	A solid, oxygen-sensitive MRI contrast agent could help monitor treatment responses in hypoxic tissues and tumors. The agent consists of an oxygen-sensitive siloxane embedded in an inert siloxane polymer matrix. In rats subjected to variable amounts of oxygen, intramuscular injection of the agent enabled measurement of changing oxygen levels with MRI for at least four weeks without degrading. In a rat model of hindlimb ischemia, the agent enabled measurement of tissue oxygen levels, and its performance was unaffected by changes in blood flow, animal movements or physical pressure on the affected limb. Next steps include testing the safety of the agent.	Patent application filed; available for licensing	Liu, V.H. et al. Proc. Natl. Acad. Sci. USA; published online April 21, 2014; doi:10.1073/pnas.1400015111 Contact: Michael J. Cima, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: mjcima@mit.edu
	SciBX 7(20); doi:10.1038/scibx.2014.600 Published online May 22, 2014		