This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
2-Deoxy-2-[¹⁸ F] fluoro-D-mannose ([¹⁸ F]FDM) to image high-risk atherosclerotic plaques with PET	Cell culture and rabbit experiments suggest [¹⁸ F]FDM can be used to image high-risk atherosclerotic plaques. Macrophages are common in high-risk lesions and express the macrophage mannose receptor (MR). In cultured human macrophages, [¹⁸ F]FDM uptake was higher than [¹⁸ F]fluoro-D-glucose ([¹⁸ F]FDG) uptake. In a rabbit model of atherosclerosis, [¹⁸ F]FDM labeled atherosclerotic lesions comparably in both <i>in vivo</i> and <i>ex vivo</i> imaging analyses. In the model, [¹⁸ F]FDM uptake correlated with macrophage infiltration and was comparable to [¹⁸ F]FDG uptake. Next steps include establishing methods for clinical-grade labeling of [¹⁸ F]FDM and evaluating the reagent in human atherosclerotic plaques and carotid arteries. <i>SciBX</i> 7(5); doi:10.1038/scibx.2014.157 Published online Feb. 6, 2014	Unpatented; licensing status not applicable	Tahara, N. <i>et al. Nat. Med.</i> ; published online Jan. 12, 2014; doi:10.1038/nm.3437 Contact: Jagat Narula, Icahn School of Medicine at Mount Sinai, New York, N.Y. e-mail: narula@mountsinai.org