This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
Selective detection of neurofibrillary tangles in Alzheimer's disease (AD) patients	<p>A chemical probe could detect neurofibrillary tangles in brain tissue to diagnose AD. Neurofibrillary tangles, a hallmark of AD, are aggregates of hyper-phosphorylated forms of microtubule-associated protein-τ (MAPT; TAU; FTDP-17). Spectroscopic analysis showed that a chemical probe consisting of a fluorescent dye coupled to a complex that could bind <i>bis</i>-phosphorylated peptides selectively detected hyper-phosphorylated fragments and aggregates of TAU protein <i>in vitro</i>. The probe also detected neurofibrillary tangles in hippocampal tissue from the brain of an AD patient. Ongoing work includes incorporating positron-emitting radioisotopes into the probe for <i>in vivo</i> PET imaging of neurofibrillary tangles.</p> <p>SciBX 2(16); doi:10.1038/scibx.2009.687 Published online April 23, 2009</p>	Patented; licensing status undisclosed	<p>Ojida, A. <i>et al.</i> <i>J. Am. Chem. Soc.</i>; published online April 15, 2009; doi:10.1021/ja9008369</p> <p>Contact: Itaru Hamachi, Kyoto University, Kyoto, Japan e-mail: ihamachi@sbchem.kyoto-u.ac.jp</p>