This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Monovalent, transferrin receptor-binding antibody with improved blood brain barrier (BBB) penetration	<p>A monovalent, transferrin receptor-binding Fab fragment could be used to improve the delivery of antibodies through the BBB.</p> <p>An antibody was constructed that consisted of a single transferrin receptor-binding Fab fragment fused to the C-terminal end of the heavy chain of a β-amyloid ($A\beta$)-specific mAb. In a mouse model of amyloid precursor protein (APP)-driven amyloidosis, the engineered antibody improved parenchymal exposure and increased $A\beta$ binding in the brain by 50-fold compared with an unmodified $A\beta$ mAb. In a mouse model of Alzheimer's disease (AD), the engineered antibody decreased $A\beta$ plaque burden more efficiently than the unmodified $A\beta$ mAb. Next steps include generating modular, monovalent, transferrin receptor-binding antibodies specific to primate and human receptors.</p> <p>SciBX 7(4); doi:10.1038/scibx.2014.129 Published online Jan. 30, 2014</p>	Patent and licensing status undisclosed	<p>Niewoehner, J. <i>et al. Neuron</i>; published online Jan. 8, 2014; doi:10.1016/j.neuron.2013.10.061 Contact: Per-Ola Freskgård, Roche, Basel, Switzerland e-mail: per-ola.freskgard@roche.com Contact: Anirvan Ghosh, same affiliation as above e-mail: anirvan.ghosh@roche.com</p>