This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Targeting ventral tegmental area (VTA) dopaminergic neurons to treat depression	<p>Targeting a subset of dopaminergic neurons could be useful for reducing depression-related behaviors. In mice, optogenetic induction of a phasic firing pattern in VTA dopaminergic neurons in mice increased susceptibility to social defeat stress and depression-related behaviors compared with induction of a tonic firing pattern. In mice and rats, optogenetic inhibition of VTA dopaminergic neurons increased depression-related behaviors compared with no inhibition. Next steps could include developing pharmacological agents to modulate the activity of VTA neurons.</p> <p>SciBX 6(2); doi:10.1038/scibx.2013.49 Published online Jan. 17, 2013</p>	Patent and licensing status for both studies unavailable	<p>Chaudhury, D. <i>et al. Nature</i>; published online Dec. 12, 2012; doi:10.1038/nature11713 Contact: Ming-Hu Han, Mount Sinai School of Medicine, New York, N.Y. e-mail: ming-hu.han@mssm.edu</p> <p>Tye, K.M. <i>et al. Nature</i>; published online Dec. 12, 2012; doi:10.1038/nature11740 Contact: Karl Deisseroth, Stanford University, Stanford, Calif. e-mail: deissero@stanford.edu</p>