

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Neutral drift libraries for directed evolution of enzymes	<p>Neutral drift libraries may offer a good starting point for generating mutant enzyme variants with improved substrate selectivity and activity. In a proof-of-concept study, directed evolution of paraoxonase-1 (PON-1) neutral drift libraries resulted in variants with 16- to 44-fold higher activity for 5 different PON-1 substrates compared with what was seen using wild-type enzyme. The study used a green fluorescent protein-PON-1 fusion protein so that improved enzyme candidates could be selected using both fluorescence and enzymatic activity screens. Degradation of PON-1 organophosphate substrates could help detoxify nerve agents. Next steps include demonstrating the increased therapeutic potential of the high-activity variants.</p> <p><i>SciBX</i> 1(39); doi:10.1038/scibx.2008.960 Published online Oct. 30, 2008</p>	Unpatented; licensing status not applicable; collaborations will be considered	<p>Gupta, R.D. <i>et al. Nat. Methods</i>; published online Oct. 19, 2008; doi:10.1038/NMETH.1262</p> <p>Contact: Dan S. Tawfik, Weizmann Institute of Science, Rehovot, Israel e-mail: tawfik@weizmann.ac.il</p>