

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Protein translocation through an α -hemolysin-caseinolytic peptidase X homolog (ClpX) nanopore system	<p>A method to translocate proteins through α-hemolysin nanopores could eventually enable nanopore-based protein sequencing. There are nanopore-based DNA sequencing methods in commercial development that detect and identify DNA by measuring voltage changes as individual base pairs pass through a membrane-embedded nanopore, but these methods cannot identify peptides. To enable protein translocation through a membrane-embedded nanopore, the AAA⁺ unfoldase ClpX was added in solution to one side of the membrane, allowing detection of structure-dependent voltage changes as a protein substrate of about 100 amino acids and carrying a ClpX binding tag passed through the pore. Next steps could include determining the relationship between voltage change and amino acid identity.</p> <p>At least five companies are developing nanopore-based DNA sequencing systems.</p> <p><i>SciBX</i> 6(6); doi:10.1038/scibx.2013.147 Published online Feb. 14, 2013</p>	Patent and licensing status undisclosed	<p>Nivala, J. <i>et al. Nat. Biotechnol.</i>; published online Feb. 3, 2013; doi:10.1038/nbt.2503 Contact: Mark Akeson, University of California, Santa Cruz, Calif. e-mail: makeson@soe.ucsc.edu</p>