

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Cationic amino acid motifs for improving cell penetration of protein therapeutics	Engineering as few as five arginine residues into a protein α -helix could be sufficient to allow protein therapeutics to effectively cross the host cell membrane. Substitution of 4, 5 or 6 arginine residues into the α -helix of the 36-residue avian pancreatic polypeptide resulted in three variants with minimal loss of structural stability compared with wild-type protein. Moreover, microscopy revealed that all variants penetrated HeLa cells, some with rates of uptake superior to those of a known oligoarginine protein carrier. The authors did not disclose their next steps.	Yale University has a patent portfolio covering compositions and uses of miniature proteins; available for licensing	Smith, B. <i>et al.</i> <i>J. Am. Chem. Soc.</i> ; published online Feb. 14, 2008; doi:10.1021/ja800074v Contact: Alanna Schepartz, Yale University, New Haven, Conn. e-mail: alanna.schepartz@yale.edu