This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Antimicrobial, self-assembled cationic peptide nanoparticles as antimicrobial agents	Cationic peptide nanoparticles that disintegrate the bacterial membrane could be useful for treating bacterial infections. A cationic antibacterial peptide was modified with cholesterol to form nanoparticles that could increase the amount of peptide at the bacterial membrane and thus enhance antimicrobial efficacy. In mice challenged with <i>Staphylococcus aureus</i> , the peptide nanoparticles increased survival over that in untreated controls. In a rabbit model of <i>S. aureus</i> -induced meningitis, i.v. delivery of the nanoparticles reduced bacterial growth and proinflammatory neutrophil proliferation in the brain and cerebrospinal fluid compared with that in untreated controls. The reductions were comparable to those seen with vancomycin. Next steps include further preclinical studies to look for any undesired host immune responses to the nanoparticles.	Patent application filed; available for licensing	Liu, L. <i>et al. Nat. Nanotechnol.</i> ; published online June 28, 2009; doi:10.1038/NNANO.2009.153 Contact: Yi-Yan Yang, Institute of Bioengineering and Nanotechnology, Singapore e-mail: yyyang@ibn.a-star.edu.sg Contact: Lanjuan Li, Zhejiang University, Hangzhou, China e-mail: ljli@zju.edu.cn
	SciBX 2(28); doi:10.1038/scibx.2009.1127 Published online July 23, 2009		