

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Drug delivery</b>			
Targeted delivery of therapeutic small interfering RNA using cationic lipid-based nanoparticles	<p>Mouse studies suggest that nanoparticles composed of cationic lipid and therapeutic siRNA could decrease tumor growth. In a previous study, nanoparticles composed of polyethylene glycol, a cell-targeting peptide, and a cationic lipid delivered plasmid DNA or siRNA to cancer cells, but they also turned on antiapoptosis-related mitogen-activated protein kinase (MAPK; ERK) pathways. Reformulation of the nanoparticles with a new cationic lipid delivered siRNA specific for epidermal growth factor receptor (EGFR) to non-small lung cell cancer (NSCLC) cells as efficiently as the previous formulation and lowered tumor growth in NSCLC mouse xenografts compared with that seen in controls. <i>In vitro</i> studies showed that the reformulated nanoparticles promoted apoptosis. Future studies could examine the effectiveness of the nanoparticles in delivering other therapeutic siRNAs in animal models.</p> <p><b>SciBX 2(13); doi:10.1038/scibx.2009.556</b>  <b>Published online April 2, 2009</b></p>	Patent and licensing status undisclosed	<p>Chen, Y. <i>et al. Mol. Pharm.</i>; published online March 16, 2009; doi:10.1021/mp800136v</p> <p><b>Contact:</b> Leaf Huang, The University of North Carolina at Chapel Hill, Chapel Hill, N.C.            e-mail: <a href="mailto:leafh@unc.edu">leafh@unc.edu</a></p>