

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Targeted, systemic delivery of therapeutic small interfering RNA nanoparticles	<p><i>In vitro</i> studies suggest that modified nanoparticles could allow for tumor-specific uptake of siRNA payloads. Nanoparticles composed of a therapeutic siRNA and a surfactant were modified with polyethylene glycol and a tumor-targeting peptide. At physiological pH, the nanoparticles induced endocytosis and facilitated the release of siRNA from endosomes or lysosomes into the cytosol of human astrocytoma cells. i.v. administration of nanoparticles containing siRNA that targeted hypoxia-inducible factor 1 (HIF1A; HIF1) decreased tumor size in mice with astrocytoma xenografts. Ongoing work includes testing the ability of the surfactant-based system to deliver therapeutic siRNAs in other cancer models.</p> <p>SciBX 2(13); doi:10.1038/scibx.2009.557 Published online April 2, 2009</p>	Patented; licensed to Surfagen Inc.	<p>Wang, X.-L. <i>et al. Mol. Pharm.</i>; published online March 18, 2009; doi:10.1021/mp800192d</p> <p>Contact: Zheng-Rong Lu, University of Utah, Salt Lake City, Utah e-mail: Zhengrong.lu@utah.edu</p>