This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Aptamer-based targeting of nanoparticle-encapsulated cisplatin prodrug to prostate cancer cells	<p>Cisplatin prodrug-encapsulating nanoparticles modified with a prostate-specific membrane antigen (PSMA)-targeting aptamer may be useful for treating prostate cancer. <i>In vitro</i>, PSMA⁺ human prostate adenocarcinoma cells incorporated the nanoparticles. The PSMA-targeted encapsulated cisplatin had an IC₅₀ value of 0.03 μM compared with 0.13 μM for nontargeting encapsulated cisplatin and 2.4 μM for free cisplatin. Next steps include evaluating the aptamer-targeted nanoparticles in animal models of cancer.</p> <p>Lipoplatin, a liposomal formulation of cisplatin from Regulon Inc., is in Phase III testing for head and neck cancer. At least two other companies have encapsulated or polymer-linked platinum-based compounds in Phase II or earlier to treat cancer.</p> <p>SciBX 1(42); doi:10.1038/scibx.2008.1032 Published online Nov. 20, 2008</p>	<p>Provisional patent application filed; licensing details available from the Technology Licensing Office at Massachusetts Institute of Technology</p> <p>Contact: Jim Freedman, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: jrftlo@mit.edu</p>	<p>Dhar, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 20, 2008; doi:10.1073/pnas.0809154105</p> <p>Contact: Stephen J. Lippard, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: lippard@mit.edu</p> <p>Contact: Omid C. Farokhzad, Harvard Medical School, Boston, Mass. e-mail: ofarokhzad@zeus.bwh.harvard.edu</p>