This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Lymph node-targeting cancer vaccines	<p>Mouse studies suggest albumin-binding DNA and peptide vaccines could help stimulate antitumor immunity in lymph nodes to help treat cancer. SAR studies defined a set of design rules for vaccines consisting of toll-like receptor 9 (TLR9)-binding CpG oligonucleotides or polyethylene glycol (PEG)-linked immunogenic peptides and lymph node-targeting, lipophilic, albumin-binding tails. In mouse models of melanoma and cervical cancer, antigenic peptide conjugates in combination with albumin-targeting CpG increased antigen-specific CD8⁺ T cell numbers in sentinel lymph nodes and decreased tumor growth compared with unmodified CpG in combination with unconjugated antigenic peptides. Ongoing work includes testing potential vaccine formulations in genetically engineered mouse models of cancer and combining this vaccination strategy with other immunomodulatory therapies.</p> <p>SciBX 7(10); doi:10.1038/scibx.2014.300 Published online March 13, 2014</p>	Patent application filed covering chemical structure and design of the lymph node-targeting materials; available for licensing	<p>Liu, H. <i>et al. Nature</i>; published online Feb. 16, 2014; doi:10.1038/nature12978 Contact: Darrell J. Irvine, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: djirvine@mit.edu</p>