This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Gene construction using microchip-based DNA synthesis and PCR amplification	Combining microchip-based DNA synthesis with PCR amplification could decrease the cost of gene synthesis for manufacturing antibodies and other biologics. Current gene synthesis methods that use phosphoramidite chemistry to generate oligonucleotides cost about \$0.40–\$1 per base pair. Less expensive DNA microchip-based gene synthesis made pools of 130- or 200-mer oligonucleotides that were amplified and combined to synthesize entire genes, including 42 single-chain antibody fragments, for less than \$0.01 per base pair. Next steps include developing process automation, in collaboration with Agilent Technologies Inc., to enable high throughput assembly. <i>SciBX</i> 4(1); doi:10.1038/scibx.2011.28 Published online Jan. 6, 2011	Patent application filed; available for licensing	Kosuri, S. <i>et al. Nat. Biotechnol.</i> ; published online Nov. 28, 2010; doi:10.1038/nbt.1716 Contact: Nikolai Eroshenko, Wyss Institute for Biologically Inspired Engineering, Harvard University, Boston, Mass. e-mail: eroshenk@wyss.harvard.edu Contact: Sriram Kosuri, same affiliation as above e-mail: sri.kosuri@wyss.harvard.edu