

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Computational methods			
Complete chemical synthesis and <i>in vivo</i> assembly of a bacterial genome	<i>In vitro</i> and <i>in vivo</i> recombination methods were used to create a synthetic genome that contained every gene of wild-type <i>Mycoplasma genitalium</i> except MG408, which was disrupted to prevent pathogenicity and allow for selection. About 10,000 genome fragments, each about 50 kb long, were chemically synthesized and then linked together in yeast to create the roughly 530-kb genome. The construct is at least 10 times larger than previously reported chemically synthesized DNA products. The authors said they hoped to achieve a viable synthetic organism within a year.	Related patents and patent applications owned by Synthetic Genomics Inc.; licensing status undisclosed	Gibson, D. <i>et al. Science</i> ; published online Jan. 24, 2008; doi:10.1126/science.1151721 Contact: Hamilton O. Smith, The J. Craig Venter Institute, Rockville, Md. e-mail: hsmith@jcvj.org