This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Biosynthetic pathway for the production of thiopeptide antibiotics	<p>A biosynthetic pathway for thiopeptides could be used to produce thiocillin I antibiotics and could be modified to generate new classes of antibiotics. In two strains of bacteria, the cloning, sequencing and characterization of two biosynthetic gene clusters—thiostrepton and siomycin—identified a biosynthetic pathway for thiopeptide formation. In <i>Bacillus cereus</i> ATCC 14579, a bacterial strain previously unknown to synthesize thiopeptides, genome mining confirmed that the pathway is used to produce thiocillin I. Next steps include genome mining to identify new members of the thiopeptide family with biological activity and using combinatorial biosynthesis to generate analogs that overcome solubility and bioavailability problems.</p> <p>SciBX 2(10); doi:10.1038/scibx.2009.423 Published online March 12, 2009</p>	<p>Patent applications filed for the biosynthetic gene clusters of thiostrepton and siomycin and their potential uses; unavailable for licensing</p>	<p>Liao, R. <i>et al. Cell</i>; published online Feb. 26, 2009; doi:10.1016/j.chembiol.2009.01.007 Contact: Wen Liu, Shanghai Institute of Organic Chemistry, Shanghai, China e-mail: wliu@mail.sioc.ac.cn Contact: Yi Yu, same affiliation as above e-mail: yuyi119@hotmail.com</p>