This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
X-ray crystal structure of ramoplanin dimer to assist antibacterial therapy development	<p>The X-ray crystal structure of a ramoplanin dimer could aid the design of antibacterial therapies. The antibiotic activity of ramoplanin is mediated through its interactions with the membrane-anchored Lipid II protein on bacteria. The structure showed that the <i>N</i>-acyl chain of ramoplanin is essential for its antibiotic activity and helps ramoplanin anchor in the membrane and interact with the Lipid II protein. The structure also highlighted key ramoplanin amino acids that influence its antibiotic activity. Next steps could include using the crystal structure in the rational design of new ramoplanin analogs.</p> <p>Ramoplanin, a macrocyclic depsipeptide inhibitor of peptidoglycan biosynthesis from Pfizer Inc. and Oscient Pharmaceuticals Corp., is in Phase II testing to treat <i>Clostridium difficile</i>-associated diseases.</p> <p>SciBX 2(32); doi:10.1038/scibx.2009.1263 Published online Aug. 20, 2009</p>	Patent and licensing status unavailable	<p>Hamburger, J.B. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 3, 2009; doi:10.1073/pnas.0904686106 Contact: Patrick J. Loll, Drexel University College of Medicine, Philadelphia, Pa. e-mail: ploll@drexelmed.edu Contact: Dewey G. McCafferty, Duke University, Durham, N.C. e-mail: dewey.mccafferty@duke.edu</p>