

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Drug platforms</b>			
Crystal structures of <i>Staphylococcus aureus</i> penicillin binding protein 2a (PBP2a)	<p><i>In vitro</i> studies identified an allosteric site on PBP2a that could aid the development of new antibiotics to treat methicillin-resistant <i>S. aureus</i> (MRSA) infection. <math>\beta</math>-Lactam antibiotics inhibit the transpeptidase activity of PBPs; however, MRSA PBP2a is resistant to this inhibition. <i>In vitro</i>, structural studies of PBP2a revealed an allosteric pocket 60 Å away from the transpeptidase active site. Ligand binding to the allosteric site caused a conformational change in PBP2a, exposing the active site for subsequent inhibition by <math>\beta</math>-lactam antibiotics. Next steps could include looking for compounds that bind to the PBP2a allosteric site.</p> <p><b>SciBX 6(41); doi:10.1038/scibx.2013.1172</b>  <b>Published online Oct. 24, 2013</b></p>	Patent and licensing status undisclosed	<p>Otero, L.H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 1, 2013; doi:10.1073/pnas.1300118110</p> <p><b>Contact:</b> Juan A. Hermoso, Spanish National Research Council, Madrid, Spain  e-mail: <a href="mailto:xjuan@iqfr.csic.es">xjuan@iqfr.csic.es</a></p> <p><b>Contact:</b> Shahriar Mobashery, University of Notre Dame, Notre Dame, Ind.  e-mail: <a href="mailto:mobashery@nd.edu">mobashery@nd.edu</a></p>