

### This week in techniques

| Approach  | Summary   | Licensing status                            | Publication and contact information  |
|---|---|---|--|
| <b>Drug platforms</b>   |   |   |  |
| Crystal structure of metabotropic glutamate receptor subtype 1 (mGluR1; GRM1) | <p>The crystal structure of mGluR1 could help researchers design mGluR1-targeted therapeutics to treat cancer and various neurological indications. <i>In vitro</i>, an X-ray crystal structure of the dimeric, seven-transmembrane domain of mGluR1 bound to a negative allosteric modulator revealed that the overall fold of the transmembrane domain and the modulator binding site resembled the inactive conformation of other classes of G protein-coupled receptors. In this structure, six cholesterol mediated contact between dimerizing receptor subunits, suggesting cholesterol could mediate communication between the extracellular domain that initiates dimerization and the transmembrane domain. Next steps include understanding allosteric mechanisms governing receptor activity and using the structure to optimize allosteric modulators.</p> <p><b>SciBX 7(13); doi:10.1038/scibx.2014.384</b><br/> <b>Published online April 3, 2014</b></p> | Unpatented; licensing status not applicable | <p>Wu, H. <i>et al. Science</i>; published online March 6, 2014;<br/>           doi:10.1126/science.1249489<br/> <b>Contact:</b> Raymond C. Stevens, The Scripps Research Institute, La Jolla, Calif.<br/>           e-mail:<br/> <a href="mailto:stevens@scripps.edu">stevens@scripps.edu</a></p> |