

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Imaging</b>			
Intracranial imaging of medulloblastomas with fluorescent-tagged, integrin-binding knottin peptide	<p>A peptide-based imaging agent could help guide surgical resection of medulloblastomas. <i>In vitro</i>, a fluorescent-tagged knottin peptide that targeted integrin <math>\alpha_v\beta_3</math> (CD51/CD61), integrin <math>\alpha_v\beta_5</math>, and integrin <math>\alpha_v\beta_1</math> (CD51/CD29) showed high binding affinity for a human medulloblastoma cell line. In two mouse models of medulloblastoma, i.v. injection of the fluorescent knottin peptide followed by intracranial and <i>ex vivo</i> tumor imaging enabled tumor cells to be distinguished from normal brain tissue. In these models, use of the fluorescent knottin peptide resulted in tumor images that have higher contrast than images resulting from three other fluorescent-tagged peptides that target integrins <math>\alpha_v\beta_3</math> and <math>\alpha_v\beta_5</math> but not <math>\alpha_v\beta_1</math>. Ongoing work includes developing the peptide for intraoperative surgical use in patients with cancer.</p> <p><b>SciBX 6(35); doi:10.1038/scibx.2013.980</b>  <b>Published online Sept. 12, 2013</b></p>	Patented; available for licensing	<p>Moore, S.J. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 15, 2013; doi:10.1073/pnas.1311333110</p> <p><b>Contact:</b> Jennifer R. Cochran, Stanford University, Stanford, Calif.            e-mail: <a href="mailto:jennifer.cochran@stanford.edu">jennifer.cochran@stanford.edu</a></p> <p><b>Contact:</b> Matthew P. Scott, same affiliation as above            e-mail: <a href="mailto:mjscott@stanford.edu">mjscott@stanford.edu</a></p>