

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Engineered lipocalins with antibody-like characteristics	<p>Lipocalins engineered to have antigen-binding sites could be useful for immunotherapeutic applications. The compounds, dubbed anticalins, are structurally simple molecules with affinities comparable to those of antibodies. <i>In vitro</i>, a cytotoxic T lymphocyte-associated protein 4 (CTLA4; CTLA-4; CD152)-specific anticalin induced biological effects comparable to those of CTLA4-specific antibodies. In a mouse model of <i>Leishmania donovani</i>, the same anticalin significantly lowered parasite burden compared with that seen in control mice ($p < 0.001$). Next steps include testing the anticalins in a variety of disease models.</p> <p>PRS-010, a CTLA4 antagonist from Pieris AG, is in the discovery stage for cancer.</p> <p>Ipilimumab (MDX-010), a human mAb against CTLA4 receptor from Medarex Inc. and Bristol-Myers Squibb Co., is in Phase III testing to treat melanoma.</p> <p>Tremelimumab (CP-675,206), a CTLA4 receptor antagonist from Pfizer Inc., is in Phase II testing to treat various cancers.</p> <p>SciBX 2(17); doi:10.1038/scibx.2009.728 Published online April 30, 2009</p>	International patent application filed for CTLA4-binding anticalins; available for worldwide licensing	<p>Schonfeld, D. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online April 27, 2009; doi:10.1073/pnas.0813399106 Contact: A. Skerra, Technical University Munich, Freising-Weihenstephan, Germany e-mail: skerra@wzw.tum.de</p>