This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Prostate cancer	Prostate-specific membrane antigen (PSMA; FOLH1; GCPII); CD3	<p><i>In vitro</i> and mouse studies suggest PSMA-targeting small molecule-antibody conjugates could help treat prostate cancer. The conjugate was made by linking 2-[3-(1,2-dicarboxy propyl)-ureido] pentanedioic acid (DUPA) to a modified αCD3 antibody fragment. DUPA binds to PSMA on cancer cells, whereas the antibody fragment binds CD3-expressing T cells to recruit them to prostate cancer tumors. In immunodeficient mice injected with both human PSMA-expressing prostate cancer and peripheral blood mononuclear cells, the conjugate prevented tumor growth and caused regression of established tumors, whereas an unconjugated mixture or vehicle did not. Next steps include testing the conjugate in humans.</p> <p>Northwest Biotherapeutics Inc. has DCVax-Prostate, therapeutic autologous dendritic cells treated with PSMA <i>ex vivo</i>, in Phase III testing to treat prostate cancer.</p> <p>At least seven other companies have PSMA-targeting therapeutics in Phase II or earlier testing to treat prostate cancer.</p> <p>SciBX 6(43); doi:10.1038/scibx.2013.1222 Published online Nov. 7, 2013</p>	Patent application filed covering the small molecule-antibody conjugate and synthesis strategy; available for licensing	<p>Kim, C.H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 14, 2013; doi:10.1073/pnas.1316026110</p> <p>Contact: Peter G. Schultz, The Scripps Research Institute, La Jolla, Calif. e-mail: schultz@scripps.edu</p> <p>Contact: Chan Hyuk Kim, California Institute for Biomedical Research, La Jolla, Calif. e-mail: chkim@calibr.org</p>