This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Thymidylate synthase	<p><i>In vitro</i> studies identified allosteric inhibitors of thymidylate synthase that could help treat cancer. In X-ray diffraction, spectroscopic, kinetic and calorimetric studies, peptides designed to bind the interface between the two monomers of the thymidylate synthase dimer inhibited the enzyme by stabilizing its inactive form. In cisplatin-sensitive and cisplatin-resistant ovarian cancer cell lines, the most potent peptide inhibitor decreased cell growth comparably to the marketed thymidylate synthase inhibitor 5-fluorouracil. Next steps include mechanistic studies of the peptide at the cellular level. At least seven companies have thymidylate synthase inhibitors in development stages ranging from clinical to marketed to treat cancer.</p> <p>SciBX 4(30); doi:10.1038/scibx.2011.853 Published online Aug. 4, 2011</p>	Patent applications filed; available for licensing	<p>Cardinale, D. <i>et al.</i> <i>Proc. Natl. Acad. Sci. USA</i>; published online July 27, 2011; doi:10.1073/pnas.1104829108 Contact: M. Paola Costi, University of Modena and Reggio Emilia, Modena, Italy e-mail: mariapaola.costi@unimore.it Contact: Glauco Ponterini, same affiliation as above e-mail: glauco.ponterini@unimore.it Contact: Rebecca C. Wade, Heidelberg Institute for Theoretical Studies, Heidelberg, Germany e-mail: rebecca.wade@h-its.org</p>