This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
B cell lymphoma; T cell lymphoma	Integrin $\alpha_v\beta_1$ (ITGA4; VLA-4; CD29/CD49d)	<p>An SAR study characterized a series of VLA-4 antagonist analogs that could be useful for selectively imaging and treating B and T cell lymphomas. In cancer cells, the cell surface receptor VLA-4 regulates tumor growth, metastasis and angiogenesis, and promotes the spread of tumor cells to distal organs. Using near-infrared imaging on mouse xenograft models of B and T cell lymphoma, a 2-arylaminobenzothiazole analog conjugated to the cyanine dye Cy5.5 showed better physiochemical properties and solubility than the parent VLA-4 antagonist. Next steps include incorporating radioisotopes into the analogs. ISIS 107248 (formerly ATL/TV-1102; ATL1102), a second-generation antisense targeting VLA-4 mRNA from Antisense Therapeutics Ltd., Isis Pharmaceuticals Inc. and Teva Pharmaceutical Industries Ltd., is in Phase II testing to treat relapsing-remitting multiple sclerosis (RRMS). TBC4746, a VLA-4 antagonist from Pfizer Inc., is in Phase I testing for multiple sclerosis and asthma. R411, a small molecule VLA-4 antagonist from Roche, is in Phase II testing to treat asthma.</p> <p>SciBX 2(2); doi:10.1038/scibx.2009.43 Published online Jan. 15, 2009</p>	Analog patented; licensing status undisclosed	<p>Carpenter, R. <i>et al. J. Med. Chem.</i>; published online Dec. 16, 2008; doi:10.1021/jm800313f</p> <p>Contact: Mark J. Kurth, University of California, Davis, Calif. e-mail: mjkurth@ucdavis.edu</p> <p>Contact: Kit S. Lam, same affiliation as above e-mail: kit.lam@ucdmc.ucdavis.edu</p>