This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Atherosclerosis	Integrin $\alpha_v\beta_3$ (CD51/CD61)	<p><i>In vitro</i> and pig studies suggest that inhibiting integrin $\alpha_v\beta_3$ could help treat diabetes-associated atherosclerosis. Integrin $\alpha_v\beta_3$ activation was greater in vascular smooth muscle cells (VSMCs) cultured in high glucose to mimic diabetic hyperglycemia than in untreated cells. Those cells showed greater responsiveness to insulin-like growth factor-1 (IGF-1) and more proatherosclerotic proliferation than cells cultured at normal glucose concentrations. In eight diabetic pigs, an antibody targeting integrin $\alpha_v\beta_3$ reduced atherosclerotic lesion development compared with a control antibody. Next steps include humanizing the anti-integrin $\alpha_v\beta_3$ antibody and assessing its toxicology profile in pigs and rodents.</p> <p>Bristol-Myers Squibb Co. and Johnson & Johnson are developing CNTO 95, an anti-integrin $\alpha_v\beta_3$ antibody that is in Phase II testing for various cancers.</p> <p>SciBX 3(9); doi:10.1038/scibx.2010.277 Published online March 4, 2010</p>	Findings covered by The University of North Carolina patents; exclusively licensed to Vascular Pharmaceuticals Inc.	<p>Maile, L. <i>et al. Sci. Transl. Med.</i>; published online Feb. 10, 2010; doi:10.1126/scitranslmed.3000476</p> <p>Contact: David R. Clemmon, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. e-mail: endo@med.unc.edu</p>