This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Dyslipidemia; hypercholesterolemia	Proprotein convertase subtilisin/kexin type 9 (PCSK9); low-density lipoprotein receptor (LDLR)	<p>Mouse studies suggest PCSK9 inhibitors and antibodies need to target both the full-length and cleaved versions of the protein. In a mouse liver model of Ldlr degradation, intact wild-type PCSK9 or PCSK9 cleaved by furin or hepsin each led to degradation of mouse liver Ldlr. In mice, furin-cleaved PCSK9 led to a 27% increase in cholesterol at 6 hours compared with a 35% increase for intact PCSK9, which suggests cleaved PCSK9 is still active. Ongoing work includes designing antibodies that target both cleaved and intact PCSK9. Sanofi and Regeneron Pharmaceuticals Inc. have REGN727, a human mAb targeting PCSK9, in Phase III testing to treat hypercholesterolemia. At least nine other companies have PCSK9 inhibitors in Phase II testing or earlier to treat hypercholesterolemia and other metabolic diseases.</p> <p>SciBX 5(46); doi:10.1038/scibx.2012.1208 Published online Nov. 29, 2012</p>	Patent and licensing status undisclosed	<p>Lipari, M.T. <i>et al. J. Biol. Chem.</i>; published online Nov. 7, 2012; doi:10.1074/jbc.M112.380618 Contact: Daniel Kirchhofer, Genentech Inc., South San Francisco, Calif. e-mail: dak@gene.com</p>