This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Cardiovascular disease	MicroRNA-33a (miR-33a); miR-33b	<p>Mouse and primate studies suggest an 8mer anti-miRNA that targets both miR-33a and miR-33b could help treat cardiovascular disease. miR-33a and miR-33b inhibit the expression of genes involved in lipid metabolism and insulin signaling. In mice, an 8mer anti-miRNA targeting the seed regions of miR-33a and miR-33b (anti-miR-33a/b) increased high-density lipoprotein (HDL) cholesterol compared with a scrambled anti-miRNA. In nonhuman primate models of metabolic disease, anti-miR-33a/b increased HDL cholesterol up to 39% compared with vehicle or anti-miRNAs targeting either miR-33a or miR-33b. In primates treated for more than 100 days, there were no adverse events, injection site reactions, liver inflammation or fibrosis. Next steps include toxicology studies in rodents and nonhuman primates.</p> <p>Regulus Therapeutics Inc. and AstraZeneca plc have an anti-miRNA targeting miR-33 in preclinical testing to treat cardiovascular disease.</p> <p>SciBX 6(47); doi:10.1038/scibx.2013.1349 Published online Dec. 12, 2013</p>	Patent application filed covering therapeutic targeting of miR-33a and miR-33b for treatment of lipid-related disorders; available for licensing	<p>Rottiers, V. <i>et al. Sci. Transl. Med.</i>; published online Nov. 20, 2013; doi:10.1126/scitranslmed.3006840</p> <p>Contact: Anders M. Nääs, Massachusetts General Hospital Cancer Center, Charlestown, Mass. e-mail: naar@helix.mgh.harvard.edu</p> <p>Contact: Sakari Kauppinen, Santaris Pharma A/S, Hørsholm, Denmark e-mail: sk@bio.aau.dk</p>