This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Thrombosis	Factor Xa; thrombin (factor IIa; F2); factor IXa; factor VIIa/tissue factor complex	<p><i>In vitro</i> studies suggest a combination of aptamers that inhibit coagulation factors could help prevent thrombosis. In plasma and whole-blood clotting assays, pairs of RNA aptamers that inhibited factor IXa, factor VIIa/tissue factor complex, factor Xa and thrombin caused synergistic inhibition of the clotting process. In an extracorporeal circulation assay that models prothrombotic conditions during open heart surgery, a combination of aptamers targeting factor Xa and prothrombin reversibly prevented coagulation for at least two hours with comparable potency to heparin and greater potency than any individual aptamer or vehicle. Next steps include evaluating the strategy in a large-animal model of cardiopulmonary bypass surgery.</p> <p>SciBX 7(33); doi:10.1038/scibx.2014.987 Published online Aug. 28, 2014</p>	Patent application filed; available for licensing	<p>Bompiani, K.M. <i>et al. Chem. Biol.</i>; published online July 24, 2014; doi:10.1016/j.chembiol.2014.05.016 Contact: Bruce A. Sullenger, Duke University Medical Center, Durham, N.C. e-mail: bruce.sullenger@duke.edu</p>