This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Diabetes	Glucagon (GCG); glucagon receptor (GCGR)	<p>Cell culture and mouse studies suggest an aptamer that binds to GCG could help treat diabetes. <i>In vitro</i> selection and chemical optimization yielded a DNA aptamer, NOX-G15, that bound GCG with a K_d of 3 nM. In epithelial cells overexpressing human GCGR, the aptamer inhibited GCG signaling. In nongenetic mouse models for type 1 and type 2 diabetes, the aptamer decreased peak blood glucose levels in glucose tolerance tests compared with vehicle but did not affect fasting blood glucose levels. Next steps include testing the aptamer and related molecules in additional mouse models for type 1 diabetes.</p> <p>Noxxon Pharma AG's NOX-G15 and NOX-G16 are in preclinical development for diabetes.</p> <p>Novo Nordisk A/S and Paladin Labs Inc. market GlucaGen, a recombinant form of glucagon, to treat diabetes.</p> <p>At least seven other companies have GCG or GCGR antagonists in Phase III or earlier testing to treat diabetes or obesity.</p> <p>SciBX 6(27); doi:10.1038/scibx.2013.683 Published online July 18, 2013</p>	<p>Patent application filed covering several GCG-binding aptamers; available for licensing from Noxxon Pharma</p> <p>Contact: Aram Mangasarian, Noxxon Pharma AG, Berlin, Germany e-mail: amangasarian@noxxon.com</p>	<p>Vater, A. <i>et al. J. Biol. Chem.</i>; published online June 6, 2013; doi:10.1074/jbc.M112.444414</p> <p>Contact: Sven Klussmann, Noxxon Pharma AG, Berlin, Germany e-mail: sklussmann@noxxon.com</p>