This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Endocrine disease				
Diabetes	Sirtuin 1 (SIRT1)	<p>Studies in rats suggest that inhibiting hepatic SIRT1 could help treat type 2 diabetes. In a rat model of type 2 diabetes, an antisense oligonucleotide that reduced <i>Sirt1</i> mRNA specifically in the liver and adipose tissue decreased both fasting glucose concentrations and hepatic glucose production and increased hepatic insulin sensitivity. The oligonucleotide also decreased transcription of key glucose-processing enzymes. In the rats, Sirt1 knockdown also increased cholesterol uptake and export from the liver to decrease total plasma cholesterol. Next steps include identifying small molecule hepatic SIRT1 inhibitors.</p> <p>GlaxoSmithKline plc's SIRT1 activators SRT501 resveratrol, SRT2104, SRT1720 and GSK184072 are in preclinical and clinical testing to treat diabetes.</p> <p>SciBX 2(25); doi:10.1038/scibx.2009.1010 Published online June 25, 2009</p>	Patent and licensing status unavailable	<p>Erion, D. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 15, 2009; doi:10.1073/pnas.0812931106</p> <p>Contact: Gerald I. Shulman, Yale University School of Medicine, New Haven, Conn. e-mail: gerald.shulman@yale.edu</p>