This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Endocrine disease				
Diabetes	Rap guanine nucleotide exchange factor 4 (RAPGEF4; EPAC2); RAP1 GTPase activating protein (RAPGAP; RAP1)	Studies in mice identified EPAC2 as the intracellular target of sulfonylureas and could help guide the design of improved therapeutics for diabetes. Imaging studies in mice showed that the sulfonylureas tolbutamide and glibenclamide interact directly with Epac2 to activate Rap1 and stimulate insulin secretion. Next steps include identifying the precise sulfonylurea binding site on EPAC2 for better drug design. At least seven companies have approved sulfonylurea analogs for diabetes. SciBX 2(30); doi:10.1038/scibx.2009.1181 Published online Aug. 6, 2009	Patent application filed; licensing status unknown	Zhang, C. <i>et al. Science</i>; published online July 30, 2009; doi:10.1126/science.1172256 Contact: Susumu Seino, Core Research for Evolution Science and Technology, Tokyo, Japan e-mail: seino@med.kobe-u.ac.jp