This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Renal disease				
Chronic kidney disease	Ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) (RAC1); Rho GDP dissociation inhibitor (GDI)- α (ARHGDIA)	<p>A study in mice suggests that inhibiting RAC1 may be useful for treating chronic kidney disease (CKD). In murine <i>Arhgdia</i> knockout models, kidney abnormalities of higher urinary albumin and renal tissue damage were associated with increased levels of active Rac1. Daily treatment of the knockout mice with 10 mg/kg of the Rac1 inhibitor NSC23766 lowered the abnormalities compared with those seen in untreated knockouts. Next steps include using animal models of CKD to identify conditions leading to RAC1 overexpression and cases where RAC1 inhibition would be effective.</p> <p>Renagel sevelamer, a nonabsorbed phosphate binder from Genzyme Corp., is marketed to treat hyperphosphatemia in patients with CKD.</p> <p>Altace ramipril, an angiotensin-converting enzyme (ACE) inhibitor from King Pharmaceuticals Inc., is under regulatory review for the same indication.</p> <p>SciBX 1(44); doi:10.1038/scibx.2008.1085 Published online Dec. 11, 2008</p>	Patent and licensing information undisclosed	<p>Shibata, S. <i>et al. Nat. Med.</i>; published online Nov. 23, 2008; doi: 10.1038/nm.1879</p> <p>Contact: Toshiro Fujita, University of Tokyo Graduate School of Medicine, Tokyo, Japan e-mail: fujita-dis@h.u-tokyo.ac.jp</p>