

## THE DISTILLERY

## This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Renal disease				
Renal disease	Kelch-like 3 (KLHL3); cullin 3 (CUL3); solute carrier family 12 potassium- chloride transporter member 3 (SLC12A3; NCCT)	Genomic analysis suggests mutations in <i>KLHL3</i> and <i>CUL3</i> could help predict the risk of pseudohypoaldosteronism type II (PHAII), a rare, genetically inherited renal disease caused by electrolyte imbalance. Exome sequencing of patients with PHAII and unaffected family members identified associations between the disease and mutations in either <i>KLHL3</i> or <i>CUL3</i> . In mouse kidney sections, wild-type <i>Klhl3</i> and <i>Cul3</i> were expressed in the distal convoluted tubule, collecting tube and other regions of the kidney where <i>NCCT</i> is expressed. Future studies could include identifying additional targets that influence the relationship between KLHL3, <i>CUL3</i> and sodium chloride (NaCl) transporters.	Patent and licensing status unavailable	Boyden, L.M. <i>et al. Nature</i> ; published online Jan. 22, 2012; doi:10.1038/nature10814 <b>Contact:</b> Richard P. Lifton, Yale School of Medicine, New Haven, Conn. e-mail: richard.lifton@yale.edu

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