

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Renal cancer	NADPH oxidase 4 (NOX4)	<p>Cell culture and mouse studies suggest NOX4 inhibition could help treat renal cell carcinoma (RCC). In human RCC cell lines, the superoxide scavenger 4-hydroxy-2,2,6,6-tetramethyl-1-piperidin-1-oxyl (TEMPOL) or shRNA against the superoxide-producing NOX4 decreased invasion and levels of a known RCC marker compared with no treatment or scrambled shRNA. In a mouse xenograft model of RCC, NOX4 knockdown delayed early tumor growth compared with no alteration. Ongoing work includes investigating a NOX4 inhibitor by Genkyotex S.A. and TEMPOL variants. Genkyotex is investigating the dual NOX1 and NOX4 small molecule inhibitor GKT137831 in Phase II trials to treat diabetic nephropathy.</p> <p>SciBX 7(21); doi:10.1038/scibx.2014.614 Published online May 29, 2014</p>	Unpatented; licensing status not applicable	<p>Gregg, J.L. <i>et al. Cancer Res.</i>; published online April 22, 2014; doi:10.1158/0008-5472.CAN-13-2979 Contact: Jodi K. Maranchie, University of Pittsburgh, Pittsburgh, Pa. e-mail: maranchiejk@upmc.edu</p>