This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Skin cancer	Nuclear factor (erythroid-derived 2)-like 2 (NFE2L2; NRF2)	<p>Cell culture studies identified NRF2 activators that could help prevent skin cancer. In human keratinocytes, NRF2 activators decreased UVB-induced apoptosis compared with vehicle, and the two lead activators showed lower toxicity than reference NRF2 activators. Next steps include developing derivatives of the lead NRF2 activator that are more suitable for skin delivery and evaluating their long-term effects in the mouse model.</p> <p>Biogen Idec Inc.'s BG-12, an oral dimethyl fumarate that activates the NRF2 pathway, is under review to treat multiple sclerosis (MS). Reata Pharmaceuticals Inc., Abbott Laboratories and Kyowa Hakko Kirin Co. Ltd. have bardoxolone methyl, a small molecule activator of NRF2, in Phase III testing to treat renal disease and Phase I testing to treat diabetic nephropathy. XenoPort Inc.'s XP23829, an oral prodrug of methyl hydrogen fumarate (MHF) that induces and activates the NRF2 pathway, is in preclinical development for Alzheimer's disease (AD) and Parkinson's disease (PD).</p> <p>SciBX 5(33); doi:10.1038/scibx.2012.865 Published online Aug. 23, 2012</p>	Unpatented; licensing status not applicable	<p>Lieder, F. <i>et al. J. Biol. Chem.</i>; published online July 31, 2012; doi:10.1074/jbc.M112.383430</p> <p>Contact: Sabine Werner, Swiss Federal Institute of Technology Zurich (ETHZ), Zurich, Switzerland e-mail: sabine.werner@cell.biol.ethz.ch</p>