

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Various				
Neurology; spinal cord injury (SCI); Parkinson's disease (PD); myocardial infarction (MI); acute lung injury	Smoothened (SMO); sonic hedgehog (SHH)	<p><i>In vitro</i> studies identified four FDA-approved glucocorticoids that have SMO agonist activity and could be useful for inducing tissue repair and regeneration. In high throughput assays using human cells, halcinonide, fluticasone, clobetasol and fluocinonide all agonized SMO and activated hedgehog pathway signaling compared with other glucocorticoids. In cultured mouse cerebellar granular cell precursors (GCPs), halcinonide, fluticasone and clobetasol each resulted in 5- to 50-fold greater proliferation than vehicle. In cultured murine cerebellar GCPs, the four compounds plus 2% Shh increased cellular proliferation compared with the compounds alone. Next steps include evaluating the glucocorticoids in rodent models of tissue repair and regeneration.</p> <p>GlaxoSmithKline plc markets multiple formulations of fluticasone for pulmonary and inflammatory conditions. The pharma also markets clobetasol for psoriasis, dermatitis and dermatosis.</p> <p>Vanos fluocinonide is marketed by Medicis Pharmaceutical Corp. to treat dermatitis and psoriasis.</p> <p>Halcinonide is a generic topical glucocorticoid.</p> <p>SciBX 3(19); doi:10.1038/scibx.2010.596 Published online May 13, 2010</p>	<p>Provisional patent filed covering applications in tissue repair and regeneration; available for licensing from the Duke University Office of Licensing & Ventures</p> <p>Contact: Bryan Baines, Duke University, Office of Licensing & Ventures, Durham, N.C. phone: 919-681-7588 e-mail: bryan.baines@duke.edu</p>	<p>Wang, J. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online May 3, 2010; doi:10.1073/pnas.0910712107</p> <p>Contact: Wei Chen, Duke University School of Medicine, Durham, N.C. e-mail: w.chen@duke.edu</p>