

### This week in therapeutics

| Indication                     | Target/marker/pathway                                   | Summary  | Licensing status       | Publication and contact information   |
|--------------------------------|---|--|------------------------|---|
| <b>Musculoskeletal disease</b> |   |  |                        |   |
| Muscular atrophy               | Androgen receptor; insulin-like growth factor-1 (IGF-1) | <p>Studies in cell culture and in mice suggest that IGF-1 could treat spinal and bulbar muscular atrophy (SBMA). In multiple cell lines expressing a mutant androgen receptor associated with SBMA, exogenous IGF-1 reduced receptor aggregation compared with vehicle control. Aberrant aggregation of mutant receptors underlies disease pathology. In a mouse model of SBMA, animals with skeletal muscle-specific overexpression of IGF-1 had lower androgen receptor aggregation and muscle and spinal cord pathology and greater survival than mice that did not express IGF-1. Ongoing work is seeking to elucidate the signaling pathways by which IGF-1 inhibits SBMA disease progression.</p> <p>Ipsen Group markets Increlex mecasermin, an injectable formulation of recombinant human IGF-1, to treat children with severe primary IGF-1 deficiency (IGFD).</p> <p><b>SciBX 2(32); doi:10.1038/scibx.2009.1246</b><br/> <b>Published online Aug. 20, 2009</b></p> | Unpatented; unlicensed | <p>Palazzolo, I. <i>et al. Neuron</i>; published online Aug. 12, 2009; doi:10.1016/j.neuron.2009.07.019</p> <p><b>Contact:</b> Maria Pennuto, Italian Institute of Technology, Genoa, Italy<br/> e-mail: <a href="mailto:maria.pennuto@iit.it">maria.pennuto@iit.it</a></p> |