

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Muscular dystrophy	Glutamyl-prolyl-tRNA synthetase (EPRS)	<p>An <i>in vitro</i> study identified EPRS as the target of the antifibrotic drug halofuginone, which could help identify antifibrotic molecules with increased potency or selectivity and new therapeutic targets in fibrosis. <i>In vitro</i>, halofuginone inhibited the prolyl-tRNA synthetase domain of EPRS with a K_i of 18 nM. In mouse fibroblasts, proline reversed halofuginone-mediated inhibition of collagen secretion, confirming the drug's antifibrotic activity. Ongoing work includes synthesizing halofuginone analogs and looking for druggable downstream targets in the pathway.</p> <p>Halo Therapeutics LLC plans to start a Phase II trial of the halofuginone derivative HT-100 in Duchenne muscular dystrophy this year.</p> <p>SciBX 5(10); doi:10.1038/scibx.2012.259 Published online March 8, 2012</p>	Patent applications filed; available for licensing	<p>Keller, T.L. <i>et al. Nat. Chem. Biol.</i>; published online Feb. 12, 2012; doi:10.1038/nchembio.790 Contact: Malcolm Whitman, Harvard School of Dental Medicine, Boston, Mass. e-mail: mwhitman@hms.harvard.edu Contact: Tracy L. Keller, same affiliation as above e-mail: tkeller@hms.harvard.edu Contact: Ralph Mazitschek, Massachusetts General Hospital, Boston, Mass. e-mail: rmazitschek@mgh.harvard.edu Contact: Chang-Yeol Yeo, Ewha Womans University, Seoul, South Korea e-mail: cyeo@ewha.ac.kr</p>