

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Neurology	Melatonin MT ₂ receptor (MTNR1B)	<p><i>In vitro</i> and mouse studies suggest that a new class of MTNR1B agonists could help treat sleep disorders. Chemistry and <i>in vitro</i> testing of indenofuran analogs identified a lead compound as a selective, picomolar agonist of MTNR1B. In a mouse model of jet lag disorder, the compound accelerated readjustment to a normal light/dark cycle compared with vehicle control. Future studies could include testing the lead compound in animal models of other sleep disorders. Takeda Pharmaceutical Co. Ltd. markets the MTNR1A and MTNR1B agonist Rozerem ramelteon to treat insomnia.</p> <p>Neurim Pharmaceuticals Ltd., H. Lundbeck A/S, Nycomed and Teva Pharmaceutical Industries Ltd. market Circadin controlled-release melatonin, which agonizes MTNR1A and MTNR1B, to treat insomnia. Servier and Novartis AG market Valdoxan agomelatine, an MTNR1A and MTNR1B agonist, to treat depression.</p> <p>SciBX 4(17); doi:10.1038/scibx.2011.491 Published online April 28, 2011</p>	Patent and licensing status undisclosed	<p>Koike, T. <i>et al.</i> <i>J. Med. Chem.</i>; published online April 7, 2011; doi:10.1021/jm200221q</p> <p>Contact: Tatsuki Koike, Takeda Pharmaceutical Co. Ltd., Osaka, Japan e-mail: Koike_Tatsuki@takeda.co.jp</p>