This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Viral infection	Dihydroorotate dehydrogenase (DHODH)	<p>Cell culture studies suggest inhibiting pyrimidine synthesis could help prevent or treat RNA viral infections. A chemical screen for inducers of an <i>interferon-β</i> (<i>IFNB</i>; <i>IFN-β</i>) reporter gene identified a compound with potent antiviral activity against multiple RNA viruses. In a human epithelial cell line, the compound inhibited pyrimidine synthesis and amplified expression of antiviral innate immune response genes. The cell line studies also suggested the compound inhibits pyrimidine synthesis by inhibiting a key enzyme in the pyrimidine biosynthesis pathway, DHODH. Next steps include genomewide analysis to identify genes induced by pyrimidine synthesis inhibitors and development of more active inhibitors.</p> <p>SciBX 6(43); doi:10.1038/scibx.2013.1229 Published online Nov. 7, 2013</p>	Unpatented; licensing status not applicable	<p>Lucas-Hourani, M. <i>et al. PLoS Pathog.</i>; published online Oct. 3, 2013; doi:10.1371/journal.ppat.1003678 Contact: Hélène Munier-Lehmann, Pasteur Institute, Paris, France e-mail: helene.munier-lehmann@pasteur.fr Contact: Frédéric Tangy, same affiliation as above e-mail: frederic.tangy@pasteur.fr Contact: Pierre-Olivier Vidalain, same affiliation as above e-mail: pierre-olivier.vidalain@pasteur.fr</p>