This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Melanoma	B cell CLL/ lymphoma 2 (BCL2; BCL-2); DEAD (Asp-Glu- Ala-Asp) box polypeptide 58 (DDX58; RIG-I)	<p><i>In vitro</i> and mouse studies suggest that a proapoptotic small interfering RNA targeting BCL-2 could be useful for treating melanoma.</p> <p><i>In vitro</i>, the compound, a BCL-2-specific, 5'-, triphosphate-modified siRNA (3p-siRNA) silenced the antiapoptotic BCL-2 and also activated RIG-I to induce both interferon (IFN) production and an immune response against tumor cells. RIG-I detects RNA with a triphosphate group at the 5' end, stimulating type I IFN production. In mice, the BCL-specific 3p-siRNA caused high systemic levels of IFN-α, IL-12 and IFN-γ, and enhanced recruitment and activation of natural killer cells in the lungs. Next steps include completing preclinical and toxicology studies and establishing a manufacturing process for the oligonucleotides.</p> <p>At least seven companies have compounds targeting BCL-2 in clinical and preclinical to treat cancer.</p>	Patent application filed in the U.S. and Europe covering 3p-siRNA; available for licensing	<p>Poeck, H. <i>et al. Nat. Med.</i>; published online Nov. 2, 2008; doi:10.1038/nm.1887</p> <p>Contact: Gunther Hartmann, University of Bonn, Bonn, Germany e-mail: gunther.hartmann@ukb.uni-bonn.de</p> <p>Contact: Thomas Tüting, same affiliation as above e-mail: thomas.tueing@ukb.uni-bonn.de</p>
<p>SciBX 1(41); doi:10.1038/scibx.2008.994 Published online Nov. 13, 2008</p>				