

### This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
<b>Infectious disease</b>				
Bacterial infection	DNA gyrase (type II topoisomerase), bacterial ( <i>gyrA</i> ); DNA topoisomerase IV, bacterial ( <i>parC</i> )	<p>A study in bacterial culture suggests that a fluoroquinolone-aminoglycoside hybrid molecule could help treat drug-resistant bacterial infections. The hybrid molecules contain a ciprofloxacin moiety linked to a neomycin moiety. In a panel of Gram-negative and Gram-positive bacteria that included drug-resistant strains, the hybrid molecules had higher potency than the two parent compounds. The hybrids also delayed the emergence of drug resistance compared with that seen using either parent compound. Next steps include ongoing work to evaluate the toxicity, pharmacokinetics and pharmacodynamics of the hybrid antibacterials in animal models.</p> <p>Ciprofloxacin is a generic fluoroquinolone that targets <i>gyrA</i> and <i>parC</i>. Neomycin is a generic aminoglycoside.</p> <p><b>SciBX 2(13); doi:10.1038/scibx.2009.537</b> <b>Published online April 2, 2009</b></p>	Patent application filed covering compounds as new hybrid antibiotics to delay and prevent resistance development; available for licensing from <a href="#">Technion-Israel Institute of Technology</a>	<p>Pokrovskaya, V. <i>et al. J. Med. Chem.</i>; published online March 20, 2009; doi:10.1021/jm900028n</p> <p><b>Contact:</b> Timor Baasov, Technion-Israel Institute of Technology, Haifa, Israel e-mail: <a href="mailto:chtimor@tx.technion.ac.il">chtimor@tx.technion.ac.il</a></p>