

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Infectious disease</b>				
Bacterial infection	Not applicable	<p><i>In vitro</i> and mouse studies suggest silver could be used to potentiate the effects of antibiotics to treat bacterial infections. Silver has known antimicrobial activity, but its mechanisms of action and synergy with existing antibiotics are not well understood. <i>In vitro</i>, silver increased reactive oxygen species (ROS) production and membrane permeability in bacteria compared with no treatment. In tetracycline-resistant bacteria, silver plus tetracycline at concentrations that were not toxic to human cell lines decreased growth compared with tetracycline alone. In mouse models for peritonitis, urinary tract infection (UTI) or catheter-infected biofilms, silver plus antibiotics, including gentamicin or vancomycin, decreased growth compared with antibiotics alone. Next steps include developing combination formulations of silver and antibiotics.</p> <p><b>SciBX 6(28); doi:10.1038/scibx.2013.723</b>  <b>Published online July 25, 2013</b></p>	Patent application filed; licensed to EnBiotix Inc.	<p>Morones-Ramirez, J.R. <i>et al. Sci. Transl. Med.</i>; published online June 19, 2013;            doi:10.1126/scitranslmed.3006276  <b>Contact:</b> James J. Collins, Boston University, Boston, Mass.            e-mail: <a href="mailto:jcollins@bu.edu">jcollins@bu.edu</a>  <b>Contact:</b> Jose Ruben Morones-Ramirez, same affiliation as above            e-mail: <a href="mailto:morones.ruben@gmail.com">morones.ruben@gmail.com</a></p>