This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Bacterial infection	FabI enoyl-(acyl carrier protein) reductase	<p>Mouse and <i>in vitro</i> studies suggest a 4-pyridone fabI inhibitor could help treat Gram-positive and Gram-negative bacterial infections. Crystal structures of a narrow-spectrum, pyridone-based fabI inhibitor in complex with fabI from <i>Staphylococcus aureus</i> and <i>Escherichia coli</i> were used to rationally design a 4-pyridone fabI inhibitor. In a panel of bacterial cell cultures, the 4-pyridone fabI inhibitor showed an extended spectrum of bactericidal activity compared with the narrow-spectrum inhibitor. In a mouse model of MRSA infection, the 4-pyridone fabI inhibitor decreased infection compared with the generic, methicillin-based antibiotic oxacillin. Next steps include developing fabI inhibitors with further improvements in potency and spectrum of activity.</p> <p>SciBX 7(19); doi:10.1038/scibx.2014.560 Published online May 15, 2014</p>	Compounds covered by filed and pending patents; available for licensing from the Research Foundation for SUNY	<p>Schiebel, J. <i>et al. J. Biol. Chem.</i>; published online April 16, 2014; doi:10.1074/jbc.M113.532804 Contact: Caroline Kisker, University of Wuerzburg, Wuerzburg, Germany e-mail: caroline.kisker@virchow.uni-wuerzburg.de Contact: Peter J. Tonge, Stony Brook University, Stony Brook, N.Y. e-mail: peter.tonge@stonybrook.edu</p>