

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Gastrointestinal disease				
Bacterial infection; cholera; salmonella; gastrointestinal infection; diarrhea (infectious)	Not applicable	<p>Mouse studies suggest retinoic acid could boost the efficacy of vaccines to prevent enteric bacterial infection and infectious diarrhea. In mice, inoculation with retinoic acid plus antigen resulted in greater production of gut-homing, antigen-specific T cells compared with inoculation using antigen alone. In mouse models of cholera and salmonella infection, inoculation with bacterial antigen and retinoic acid prevented cholera-induced diarrhea and lowered salmonella loads, respectively, compared with antigen alone. Future studies could include testing retinoic acid in conjunction with other vaccines to treat gastrointestinal infections.</p> <p>Johnson & Johnson markets Dukoral, a traveler's diarrhea vaccine, to prevent cholera infection and infectious diarrhea.</p> <p>ACE527 (formerly ACE537), an oral vaccine comprised of three live strains of attenuated enterotoxigenic <i>Escherichia coli</i> (ETEC) bacteria from Zymenex A/S and TD Vaccines A/S, has completed Phase II testing to prevent traveler's diarrhea caused by ETEC. Zymenex and TD Vaccines also have ACE920, a combination of ACE527 and the <i>Campylobacter</i> poultry vaccine ACE393, in preclinical testing to prevent infectious diarrhea.</p> <p>SciBX 4(28); doi:10.1038/scibx.2011.796 Published online July 21, 2011</p>	Patent and licensing status unavailable	<p>Hammerschmidt, S.I. <i>et al. J. Clin. Invest.</i>; published online July 1, 2011; doi:10.1172/JCI44262</p> <p>Contact: Reinhold Förster, Hannover Medical School, Hannover, Germany e-mail: Foerster.Reinhold@MH-Hannover.de</p>