This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
Bacterial infection	Interleukin-1 β (IL-1 β)	<p>Mouse studies suggest altering the composition of the intestinal microbiome could help prevent osteomyelitis (bone infection). In a mouse model of hind limb osteomyelitis, a high-fat diet decreased signs of inflammatory bone disease, hind paw levels of proinflammatory IL-1β and intestinal levels of <i>Prevotella</i>—a genus of bacteria that causes some cases of osteomyelitis—compared with a low-fat diet. In models fed the low-fat diet, oral gavage with fecal microbiota from mice fed the high-fat diet decreased <i>Prevotella</i> levels and signs of osteomyelitis compared with oral gavage using vehicle. Next steps include identifying the specific bacterial communities and microbial-encoded metabolites that are responsible for promoting protection against inflammatory bone disease.</p> <p>SciBX 7(41); doi:10.1038/scibx.2014.1210 Published online Oct. 23, 2014</p>	Unpatented; licensing status not applicable	<p>Lukens, J.R. <i>et al. Nature</i>; published online Sept. 28, 2014; doi:10.1038/nature13788 Contact: Thirumala-Devi Kanneganti, St. Jude Children's Research Hospital, Memphis, Tenn. e-mail: thirumala-devi.kanneganti@stjude.org</p>