<table>
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<th>Indication</th>
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| Infectious disease  | Rotavirus                                                                             | Mouse studies suggest the bacterial protein flagellin or IL-18 plus IL-22 could help treat rotaviral infection. In mouse models of rotaviral infection, flagellin agonized Tlr5 and Nlrc4 to prevent or treat symptoms of infection. In the models, the antiviral effect of flagellin was dependent on Il-22 and Il-18. In neonatal mice challenged with rotavirus and adult mouse models of chronic rotaviral infection, human IL-22 plus IL-18 decreased markers of infection compared with either cytokine alone. Ongoing work includes planning a clinical trial to test the cytokine combination. GlaxoSmithKline plc has the recombinant IL-18 protein iboctadekin (SB-485232) in Phase I testing to treat ovarian cancer and non-Hodgkin's lymphoma (NHL). Generon (Shanghai) Corp. Ltd. has F-652, a recombinant protein containing a human IL-22 dimer, in Phase I testing to treat pancreatitis, liver disease, graft-versus-host disease (GvHD) and inflammation. | Patents issued and filed; available for licensing | Zhang, B. et al. *Science*; published online Nov. 14, 2014; doi:10.1126/science.1256999  
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