

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Inflammatory bowel disease (IBD); Crohn's disease	Melanin-concentrating hormone (MCH); melanin-concentrating hormone receptor 1 (MCHR1)	Studies in mice and in human tissue suggest that antagonizing MCH could help treat IBD. In mouse models of chemically induced colitis, pretreatment with an antibody against MCH minimized intestinal inflammation by 40% compared with what was seen in mice that received control antibody ($p < 0.05$). In the same models, MCHR1 knockout resulted in 50% less inflammation and a 60–85% reduction in the proinflammatory cytokines tumor necrosis factor- α , IL-1 β and IL-6 compared with what was seen in wild-type models ($p < 0.05$). Also, inflamed mucosa samples from patients with active IBD experienced upregulation of MCH and MCHR1 mRNA expression compared with that seen in normal colonic mucosa ($p < 0.05$). Next steps include determining the molecular pathways that mediate MCH's effects on immune and colonic epithelial cells and testing known MCH antagonists and short interfering RNA in mouse models of colitis.	Patent application filed; available for licensing through the Beth Israel Deaconess Medical Center	Kokkotou, E. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online July 14, 2008; doi:10.1073/pnas.0804536105 Contact: Efi Kokkotou, Harvard Medical School, Boston, Mass. e-mail: ekokkoto@bidmc.harvard.edu