This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Multiple sclerosis (MS)	Peroxisome proliferation–activated receptor-γ (PPARG; PPARγ); RAR-related orphan receptor C (RORC; RORγ)	A study in mice and in human T cells suggests that agonizing PPARγ or antagonizing RORC could be useful for treating MS. RORC is a transcription factor that promotes the production of proinflammatory T helper cell type 17 (Th17) cells. In a murine experimental autoimmune encephalomyelitis (EAE) model of MS, the PPARγ agonist pioglitazone lowered levels of proinflammatory cytokines and Th17 cells and reduced pathology compared with mock treatment. In murine and human T cells, pioglitazone lowered expression of RORC compared with control treatment. Next steps include identifying RORC antagonists and retrospectively analyzing relapse rates in MS patients receiving pioglitazone for metabolic disorders. Actos pioglitazone and Avandia rosiglitazone are PPARγ agonists marketed by Takeda Pharmaceutical Co. Ltd. and GlaxoSmithKline plc, respectively.	Patent pending; available for licensing	Klotz, L. *et al. J. Exp. Med.*; published online Sept. 8, 2009; doi:10.1084/jem.20082771 **Contact:** Percy Knolle, University of Bonn, Bonn, Germany e-mail: percyknolle@gmail.com

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