

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Autoimmune disease</b>				
Rheumatoid arthritis (RA)	Colony-stimulating factor 1 receptor (CSFR1; FMS)	SAR studies and studies in rats identified a new class of FMS inhibitors that could help treat RA. Structure-based optimization of pyrido[2,3- <i>d</i> ]pyrimidin-5-one-based inhibitors led to the discovery of a hydroxamate analog with better potency and pharmacokinetics than parent compounds. In a rat model of arthritis, the hydroxamate analog reversed joint swelling. The compound was orally bioavailable and had low systemic clearance. In a different rat model of arthritis, the compound partially lowered joint swelling and prevented bone erosion but had little impact on inflammation. Next steps could include clinical testing of FMS inhibitors in other RA models.	Patent and licensing status unavailable	Huang, H. <i>et al. J. Med. Chem.</i> ; published online Feb. 5, 2009; doi:10.1021/jm801406h <b>Contact:</b> Mark R. Player, Johnson & Johnson Pharmaceutical Research and Development, Spring House, Pa. e-mail: <a href="mailto:mplayer@its.jnj.com">mplayer@its.jnj.com</a>
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