

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Celiac disease	Phospholipase A ₂ , group IVA (cytosolic, calcium-dependent) (PLA ₂ G4A); killer cell lectin-like receptor subfamily K member 1 (KLRK1; CD314; NKG2D)	A study in human cell culture and tissues suggests that antagonizing PLA ₂ G4A could help treat celiac disease. In cell culture, small molecule inhibition or small interfering RNA knockdown of PLA ₂ G4A lowered proinflammatory cytotoxic T lymphocyte activity triggered by NKG2D activation compared with that seen in mock-treated controls. Intestinal biopsy tissues from patients with active celiac disease had higher levels of active PLA ₂ G4A compared with healthy controls. Next steps include identifying the specific lipid mediator that is produced by NKG2D-mediated PLA ₂ G4A activation and starting clinical trials of PLA ₂ G4A inhibitors for celiac disease. Wyeth's PLA ₂ G4A inhibitors efipladib and WAY-196025 are in preclinical development for undisclosed indications.	Unpatented; licensing status not applicable; modulating NKG2D to treat autoimmune disease patented by the University of California; licensing status undisclosed	Tang, F. <i>et al. J. Exp. Med.</i> ; published online Feb. 23, 2009; doi:10.1084/jem.20071887 Contact: Bana Jabri, University of Chicago, Chicago, Ill. e-mail: bjabri@bsd.uchicago.edu
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