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THE DISTILLERY

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Autoimmune disease				
Autoimmune	Integrin $\alpha_v\beta_8$	Two separate mouse studies suggest that inhibiting integrin $\alpha_v\beta_8$ could decrease levels of proinflammatory T helper type 17 (Th17) cells and treat autoimmune disease. The first study, using a mouse model of experimental autoimmune encephalomyelitis (EAE), showed that a peptide inhibitor of integrin $\alpha_v\beta_8$, but not a control peptide, prevented increases in Th17 cells and protected against disease. In the second study, also in EAE mice, dendritic cell (DC)-specific knockout of integrin $\alpha_v\beta_8$ lowered Th17 cell levels and protected animals from disease. In cocultures of integrin $\alpha_v\beta_8$–deficient DCs and naïve T cells, compared with cocultures of wild-type DCs and naïve T cells, differentiation of T cells to proinflammatory Th17 cells was impaired. Next steps for both research groups could include developing small molecule or antibody antagonists of integrin $\alpha_v\beta_8$. *SciBX* 3(48); doi:10.1038/scibx.2010.1434 Published online Dec. 16, 2010	Patent and licensing status for findings in first study undisclosed Findings in second study unpatented; licensing status undisclosed	Acharya, M. *et al. J. Clin. Invest.*; published online Nov. 22, 2010; doi:10.1172/JCI43796 **Contact:** Adam Lacy-Hulbert, Massachusetts General Hospital and Harvard Medical School, Boston, Mass. e-mail: alacy-hulbert@partners.org Melton, A.C. *et al. J. Clin. Invest.*; published online Nov. 22, 2010; doi:10.1172/JCI43786 **Contact:** Dean Sheppard, University of California, San Francisco, Calif. e-mail: dean.sheppard@ucsf.edu