

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Endocrine disease				
Type 1 diabetes	Serine protease	<p>A study in mice suggests that α_1-antitrypsin (AAT) may be useful for treating type 1 diabetes. In 14 of 16 nonobese diabetic (NOD) mice, AAT helped maintain euglycemia, whereas 150 untreated controls remained hyperglycemic ($p < 0.0001$). In NOD mice receiving syngeneic islet grafts, AAT induced immune tolerance of the graft and euglycemia, whereas grafts in untreated controls were destroyed. Next steps include clinical trials of AAT to treat type 1 diabetes and testing AAT with immunosuppressants in organ transplantation procedures.</p> <p>Baxter International Inc. markets Aralast hAAT to treat congenital AAT deficiency in patients with clinically evident emphysema.</p> <p>Otelixizumab, an mAb that binds to CD3 from Tolerx Inc., BTG plc and GlaxoSmithKline plc, is in Phase III testing to treat type 1 diabetes.</p> <p>DiaPep277, an immunomodulator peptide analog of a heat shock protein 60 epitope from Clal Biotechnology Industries Ltd. and Teva Pharmaceutical Industries Ltd., is in Phase III testing for the same indication.</p> <p>At least six additional companies have immune modulators or cell therapy products in Phase II or earlier to treat type 1 diabetes.</p> <p>SciBX 1(40); doi:10.1038/scibx.2008.974 Published online Nov. 6, 2008</p>	<p>Patent application filed for use of human AAT in type 1 diabetes and autoimmune diseases; available for licensing from Harvard University Technology Ventures Office</p> <p>Contact: Mark Chalek, Beth Israel Deaconess Medical Center, Boston, Mass. e-mail: mchalek@bidmc.harvard.edu</p>	<p>Koulmanda, M. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 13, 2008; doi:10.1073/pnas.0808031105</p> <p>Contact: Terry B. Strom, Beth Israel Deaconess Medical Center, Boston, Mass. e-mail: tstrom@bidmc.harvard.edu</p>