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THE DISTILLERY

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Leukemia; lymphoma	CD22	Studies in mice identified a nonimmunogenic version of a tumor-targeted bacterial toxin that could help treat B cell malignancies without triggering an unwanted host immune response. A nonimmunogenic variant of the *Pseudomonas* exotoxin A protein was linked to an anti-CD22 antibody for delivery to lymphoma cells. In a mouse model of human Burkitt's lymphoma, the toxin-mAb conjugate had cytotoxicity comparable to that of the immunogenic parent molecule without eliciting an antibody response. Next steps include identifying additional epitopes in the toxin that may be immunogenic in humans. Moxetumomab pasudotox (formerly CAT-8015, HA22 and GCR-8015), a murine anti-CD22 immunotoxin from AstraZeneca plc, is in Phase I testing for multiple types of leukemia and lymphoma. Inotuzumab ozogamicin, a humanized antibody against CD22 linked to the calicheamicin cytotoxin from Pfizer Inc. and UCB Group, is in Phase III testing for non-Hodgkin's lymphoma (NHL) and Phase II trials for B cell lymphoma. At least three other companies have CD22-targeting compounds in Phase II testing or earlier for various types of leukemia and lymphoma. *SciBX* 4(14); doi:10.1038/scibx.2011.396 Published online April 7, 2011	Covered by multiple issued and pending patents; licensed to AstraZeneca's MedImmune LLC unit for use in B cell malignancies; use in other indications available for licensing	Onda, M. *et al. Proc. Natl. Acad. Sci. USA*; published online March 21, 2011; doi:10.1073/pnas.1102746108 **Contact:** Ira Pastan, National Institutes of Health, Bethesda, Md. e-mail: pastani@mail.nih.gov