This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Chronic myelogenous leukemia (CML); acute lymphocytic leukemia (ALL)	Calcineurin A α (PPP3CA; CNA1); nuclear factor of activated T cells cytoplasmic calcineurin-dependent 1 (NFATc1)	<i>In vitro</i> and mouse studies suggest that inhibiting CNA1-NFATc1 signaling could help treat CML and ALL. In CML cell lines and bone marrow samples from CML patients, a combination of the CNA1-NFATc1 inhibitor cyclosporin A and Gleevec imatinib or Sprycel dasatinib increased apoptosis compared with Gleevec or Sprycel alone. In a mouse model of ALL, a combination of cyclosporin A and Sprycel increased survival compared with Sprycel alone. Planned work includes Phase I testing of cyclosporin A in a combination therapy to treat CML. Cyclosporin A is a generic immunosuppressant marketed to prevent organ transplant rejection. Novartis AG markets the BCR-ABL tyrosine kinase inhibitor Gleevec imatinib to treat CML, ALL and other cancers. Bristol-Myers Squibb Co. and Otsuka Pharmaceutical Co. Ltd. market Sprycel dasatinib, a small molecule inhibitor of BCR-ABL and Src kinases, to treat CML and ALL.	Unpatented; unlicensed	Gregory, M.A. <i>et al. Cancer Cell</i> ; published online July 13, 2010; doi:10.1016/j.ccr.2010.04.025 Contact: James DeGregori, University of Colorado Denver School of Medicine, Aurora, Colo. e-mail: james.degregori@ucdenver.edu
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