This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lymphoma	Anaplastic lymphoma kinase (ALK); nucleophosmin (NPM1; B23); platelet derived growth factor receptor A (PDGFRA; PDGFR2; CD140A); PDGFRB (PDGFR1; CD140B)	<p>Studies in mice and in a single patient suggest inhibiting PDGFR2 could help treat anaplastic large cell lymphomas driven by the NPM1-ALK oncoprotein. In a mouse model of NPM1-ALK-driven anaplastic large cell lymphoma, inhibition of Pdgr1 with Gleevec imatinib decreased tumor mass and increased survival compared with no treatment. In the mouse model, imatinib plus the ALK inhibitor Xalkori crizotinib caused greater tumor growth inhibition than either compound alone. In a single relapsed, chemotherapy-refractory patient, imatinib led to PDGFR1 levels that were lower than those before treatment and led to complete clinical remission. Next steps include designing a clinical trial to test imatinib in additional patients with NPM1-ALK-driven lymphomas and studying the role of PDGFR2 on the tumor microenvironment.</p> <p>Novartis AG markets the BCR-ABL tyrosine kinase inhibitor Gleevec to treat chronic myelogenous leukemia (CML) and gastrointestinal stromal tumors.</p> <p>Pfizer Inc. markets Xalkori to treat non-small cell lung cancer (NSCLC). The drug also is in Phase I testing to treat solid tumors.</p> <p>SciBX 5(42); doi:10.1038/scibx.2012.1108 Published online Oct. 25, 2012</p>	Patented; licensed to Akron Molecules GmbH	<p>Laimer, D. <i>et al. Nat. Med.</i>; published online Oct. 14, 2012; doi:10.1038/nm.2966 Contact: Lukas Kenner, Medical University of Vienna, Vienna, Austria e-mail: lukas.kenner@meduniwien.ac.at</p>