This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Sarcoma	EPH receptor B4 (EPHB4); platelet derived growth factor receptor B (PDGFRB; PDGFR1; CD140B)	Patient sample and mouse studies suggest inhibiting PDGFRB cross talk with EPHB4 could help treat alveolar rhabdomyosarcoma (aRMS). In aRMS cells from human patients and mouse models, EPHB4 and PDGFRB were upregulated. In human and mouse aRMS cells, *EPHB4*- and *PDGFRB*-targeting siRNA or the dual inhibitor Sprycel dasatinib decreased viability compared with nonspecific siRNA or the PDGFRB inhibitor Gleevec imatinib. In a mouse orthotopic model of aRMS, dasatinib increased survival compared with imatinib or vehicle. Next steps include working with partner VasGene Therapeutics Inc. to validate the findings in mice with human tumor xenografts. Bristol-Myers Squibb Co. and Otsuka Pharmaceutical Co. Ltd. market Sprycel, a small molecule inhibitor of BCR-ABL tyrosine kinase and Src kinase, to treat acute lymphoblastic leukemia (ALL) and chronic myelogenous leukemia (CML). Novartis AG markets Gleevec, a BCR-ABL tyrosine kinase inhibitor, to treat CML, ALL and gastrointestinal stromal tumors (GISTs).	Findings unpatented; licensing status not applicable	Aslam, M.I. *et al. Proc. Natl. Acad. Sci. USA*; published online April 14, 2014; doi:10.1073/pnas.1403608111 **Contact:** Charles Keller, Oregon Health & Science University, Portland, Ore. e-mail: keller@ohsu.edu **Contact:** Jeffrey W. Tyner, same affiliation as above e-mail: tynerj@ohsu.edu **Contact:** Brian J. Druker, same affiliation as above e-mail: drukerb@ohsu.edu

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