This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Chronic myeloid leukemia (CML)	BCR-ABL tyrosine kinase	<p>Mouse and <i>in vitro</i> studies suggest that blocking the interaction between the SH2 and kinase domains of BCR-ABL could help treat tyrosine kinase inhibitor (TKI)-resistant CML. An <i>in vitro</i> assay identified a point mutation in the SH2 domain of TKI-resistant BCR-ABL that decreased its interaction with the catalytic kinase domain and increased sensitivity to nilotinib ($p < 0.001$). In mice, transplantation of hematopoietic stem cells expressing wild-type BCR-ABL induced leukemia, whereas transplantation of cells expressing this mutant BCR-ABL did not. Next steps include identifying small molecule inhibitors of the SH2-kinase domain interface. Novartis AG markets the BCR-ABL inhibitors Gleevec imatinib and Tasigna nilotinib for CML. Bristol-Myers Squibb Co. and Otsuka Pharmaceutical Co. Ltd. market the BCR-ABL inhibitor Sprycel dasatinib for CML.</p> <p>SciBX 4(44); doi:10.1038/scibx.2011.1231 Published online Nov. 10, 2011</p>	Patent status undisclosed; available for partnering	<p>Grebien, F. <i>et al. Cell</i>; published online Oct. 14, 2011; doi:10.1016/j.cell.2011.08.046 Contact: Giulio Superti-Furga, Austrian Academy of Sciences, Vienna, Austria e-mail: gsuperti@cemm.oeaw.ac.at Contact: Oliver Hantschel, Swiss Federal Institute of Technology Lausanne, Lausanne, Switzerland e-mail: oliver.hantschel@epfl.ch</p>