This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Histone deacetylase 1 (HDAC1); HDAC6; BCR-ABL tyrosine kinase; platelet derived growth factor receptor (PDGFR)	*In vitro* studies suggest that a hybrid compound targeting protein kinases and HDACs could help treat cancer. *In vitro*, a scaffold derived from the protein kinase inhibitor Gleevec imatinib and modified with benzamide or hydroxamate inhibited HDACs 1 and 6 with efficacy comparable to that of HDAC-specific inhibitors. Several of the structures also inhibited BCR-ABL tyrosine kinase and PDGFR. *In vitro*, all of the hybrid compounds had cytotoxicity against cancer cell lines. Next steps include *in vivo* studies in tumor-bearing xenografts. The BCR-ABL inhibitor Gleevec is marketed by Novartis AG to treat gastrointestinal stromal tumors (GIST), chronic myeloid leukemia (CML), acute lymphoblastic leukemia (ALL), myelodysplastic syndromes (MDS), myeloproliferative diseases and certain other cancer indications.	Findings patented by Nycomed Group A/S; patent sold to 4SC AG; contact 4SC AG for licensing information	Mahboobi, S. *et al. J. Med. Chem.*; published online March 20, 2009; doi:10.1021/jm800988r **Contact:** Thomas Beckers, Nycomed GmbH, Konstanz, Germany e-mail: Thomas.Beckers@oncotest.de **Contact:** Siavosh Mahboobi, University of Regensburg, Regensburg, Germany e-mail: siavosh.mahboobi@chemie.uni-regensburg.de

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