This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Chronic myelogenous leukemia (CML)	BCR-ABL tyrosine kinase	<p><i>In vitro</i> and mouse studies suggest that autophagy inhibitors could increase the effectiveness of tyrosine kinase inhibitors to treat CML. In murine CML cells, the tyrosine kinase inhibitor Gleevec imatinib plus the autophagy inhibitor chloroquine increased cell death compared with that seen using imatinib alone. In a CML mouse model, the combination also decreased the number of CML cells in bone marrow. In primary CML cells isolated from an imatinib-resistant patient, the combination decreased cell survival compared with that seen using imatinib alone. Ongoing work is focused on elucidating the mechanisms of apoptosis in autophagy-impaired CML cells. Clinical trials of the combination therapy are planned.</p> <p>Marketed BCR-ABL tyrosine kinase inhibitors for CML include Sprycel dasatinib from Bristol-Myers Squibb Co. and Tasigna nilotinib and Gleevec from Novartis AG. Wyeth's BCR-ABL tyrosine kinase inhibitor bosutinib is in Phase III testing to treat CML.</p> <p>The generic chloroquine is approved to treat malaria. sanofi-aventis Group's chloroquine derivative ferroquine (SSR97193) is in Phase II testing to treat malaria.</p> <p>SciBX 2(16); doi:10.1038/scibx.2009.651 Published online April 23, 2009</p>	Patent held by trustees of the University of Pennsylvania; licensing status undisclosed	<p>Bellodi, C. <i>et al. J. Clin. Invest.</i>; published online April 13, 2009; doi:10.1172/JCI35660</p> <p>Contact: Paolo Salomoni, University of Leicester, Leicester, U.K. e-mail: ps90@le.ac.uk</p> <p>Contact: Bruno Calabretta, Thomas Jefferson University, Philadelphia, Pa. e-mail: bruno.calabretta@mail.jci.tju.edu</p>