This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	BCL2-associated X protein (BAX); BCL2-antagonist/ killer 1 (BAK1; BAK); B cell lymphoma 2 (BCL-2; BCL2); BCL3 homology domain 3 (BH3)	Structural studies have identified regions of BAX and BAK that could guide the development of a new class of BH3-mimetic drugs that directly trigger apoptosis and help treat cancer. Crystal structures of BCL2 have guided the development of BH3-mimetic compounds that bind and inhibit prosurvival proteins; however, it was unclear how BH3 domains bind and activate proapoptotic proteins, such as BAX and BAK. *In vitro* and crystallographic studies of BAX in complex with BH3 peptides have now identified domains on the protein's surface necessary for BH3-driven oligomerization and activation that triggers apoptosis. Next steps could include developing BH3-mimetic compounds that directly bind BAX and trigger or block apoptosis. Abbott Laboratories and Roche's Genentech Inc. have navitoclax (ABT-263), a pan-inhibitor of BCL2-family proteins, in Phase I/II testing in small cell lung cancer and Phase I testing in additional cancers. At least six additional companies have antagonists of BCL2 family proteins in development stages from preclinical to Phase II testing for cancer. *SciBX* 6(6); doi:10.1038/scibx.2013.133 Published online Feb. 14, 2013	Patent status undisclosed; available for licensing	Czabotar, P.E. *et al. Cell*; published online Jan. 31, 2013; doi:10.1016/j.cell.2012.12.031 **Contact:** Peter M. Colman, The Walter and Eliza Hall Institute of Medical Research, Melbourne, Victoria, Australia e-mail: pcolman@wehi.edu.au **Contact:** Peter E. Czabotar, same affiliation as above e-mail: czabotar@wehi.edu.au