

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Huntington's disease (HD)	Cytochrome C	<i>In vitro</i> and <i>in vivo</i> studies suggest that inhibition of cytochrome C could help treat HD. A screen of 1,040 compounds identified 16 molecules that inhibited cytochrome C release from the mitochondrion and lowered rates of cell death in striatal cells that expressed a mutated huntingtin (htt) protein. Methazolamide, one of the most potent compounds in the cellular assay, inhibited release of cytochrome C and the proapoptotic mitochondrial protein Smac/Diablo in the HD cells. In a mouse model of HD, 40 mg/kg of daily methazolamide delayed disease onset and extended lifespan by 20% compared with the effects of saline controls ($p < 0.05$), and it lowered both cytochrome C release and loss of immunoreactive striatal neurons. The next step is to test the series of inhibitors identified by the screens in clinical trials.	Patent application filed for the cytochrome c release inhibitors; available for licensing worldwide	Wang, X. <i>et al. J. Neurosci.</i> ; published online Sept. 17, 2008; doi:10.1523/JNEUROSCI.1867-08.2008 Contact: Robert M. Friedlander, Harvard Medical School, Boston, Mass. e-mail: rfriedlander@rics.bwh.harvard.edu