

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Acute promyelocytic leukemia (APL)	Not applicable	Studies in mice suggest that the traditional Chinese medicinal formula Realgar- <i>Indigo naturalis</i> (RIF), reduced to its three active compounds, could be useful for treating APL. The main active ingredients of RIF are tetraarsenic tetrasulfide from realgar, tanshinone IIA from <i>Salvia miltiorrhiza</i> and indirubin from <i>Indigo naturalis</i> . In a murine model of APL, RIF therapy significantly prolonged median overall survival compared with vehicle treatment or monotherapy or combinations of any two of the active compounds ($p < 0.001$). In human APL cell lines, RIF treatment caused degradation of the PML-RAR α oncoprotein and downstream G1/G0 arrest. Next steps include toxicity studies with a combination of the three active compounds.	Not patented; unlicensed	Wang, L. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online March 10, 2008; doi:10.1073/pnas.0712365105 Contact: Zhu Chen, Shanghai Jiao Tong University School of Medicine, Shanghai, China e-mail: zchen@stn.sh.cn