This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Tachycardia	Troponin T type 2 (cardiac) (TNNT2)	<p>A mouse study suggests that blebbistatin may be useful for lowering Ca⁺ sensitivity in myofilaments and for protecting against cardiac arrhythmia. Transgenic mice expressing mutated <i>Tnnt2</i>—which causes hypertrophic cardiomyopathy in humans—had greater myofilament Ca²⁺ sensitivity and incidence of ventricular tachycardia following isoproterenol challenge than wild-type mice. Blebbistatin decreased the Ca²⁺ sensitivity of isolated cardiac muscle and significantly lowered the incidence of ventricular tachycardia in <i>ex vivo</i> hearts ($p < 0.01$) compared with what was seen in untreated control tissue. Next steps include studying the role of Ca²⁺ sensitivity in cardiac arrhythmia in larger animal models. Blebbistatin is a research chemical available from Sigma-Aldrich Corp.</p> <p>Vasolan verapamil hydrochloride, a calcium channel blocker from Eisai Co. Ltd., is approved to treat arrhythmias.</p> <p>Rythmol SR extended release propafenone from GlaxoSmithKline plc is marketed for the same indication.</p> <p>At least nine other companies have compounds in registration or earlier stages of development to treat arrhythmia.</p> <p>SciBX 1(44); doi:10.1038/scibx.2008.1075 Published online Dec. 11, 2008</p>	Unpatented; licensing status not applicable	<p>Baudenbacher, F. <i>et al. J. Clin. Invest.</i>; published online Nov. 20, 2008; doi:10.1172/JCI36642</p> <p>Contact: Björn C. Knollmann, Vanderbilt University, Nashville, Tenn. e-mail: bjorn.knollmann@vanderbilt.edu</p>