

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Hypertension	Forkhead box O1 (FOXO1)	<p>Studies based on patient data and rodent models suggest the generic chemotherapy drug paclitaxel could help treat pulmonary arterial hypertension (PAH). In patients with PAH and in rat models of the disease, pulmonary vasculature levels of FOXO1 were lower than those in normal controls. In mice, <i>Foxo1</i> knockout in arterial smooth muscle cells increased markers of PAH, including right-ventricle hypertrophy and pathological remodeling of pulmonary vasculature, compared with wild-type <i>Foxo1</i> expression. In mouse and rat models of PAH, i.v. or inhaled formulations of paclitaxel restored <i>Foxo1</i> expression and led to decreased pathological remodeling of pulmonary vasculature and increased right-ventricle function compared with vehicle. Ongoing work includes optimizing an inhaled formulation of paclitaxel for clinical testing.</p> <p>SciBX 7(43); doi:10.1038/scibx.2014.1258 Published online Nov. 6, 2014</p>	Patent application filed; unavailable for licensing	<p>Savai, R. <i>et al. Nat. Med.</i>; published online Oct. 26, 2014; doi:10.1038/nm.3695</p> <p>Contact: Soni Savai Pullamsetti, Max Planck Institute for Heart and Lung Research, Bad Nauheim, Germany e-mail: soni.pullamsetti@mpi-bn.mpg.de</p>