This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Pulmonary disease	Granulocyte macrophage colony-stimulating factor receptor (CSF2RA; GMR; CD116); granulocyte macrophage colony-stimulating factor 2 receptor- β (CSF2RB; CD131)	<p>Mouse studies suggest pulmonary macrophage transplantation (PMT) could help treat hereditary pulmonary alveolar proteinosis (hPAP), a myeloid cell disorder caused by mutations in <i>CSF2RA</i> or <i>CSF2RB</i>. In a <i>Csf2rb</i> knockout mouse model of hPAP, PMT of wild-type macrophages from healthy mice or PMT of diseased macrophages pretreated with lentivirus-mediated <i>Csf2rb</i> gene decreased lung pathology and increased survival compared with no treatment or no macrophage pretreatment, respectively. Next steps include optimizing the PMT therapy in the mouse model.</p> <p>SciBX 7(43); doi:10.1038/scibx.2014.1270 Published online Nov. 6, 2014</p>	Patent and licensing status unavailable	<p>Suzuki, T. <i>et al. Nature</i>; published online Oct. 1, 2014; doi:10.1038/nature13807 Contact: Bruce C. Trapnell, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio e-mail: bruce.trapnell@cchmc.org Contact: Takuji Suzuki, same affiliation as above e-mail: takuji.suzuki@cchmc.org</p>