This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Infectious disease				
<i>Aspergillus</i>	C-type lectin domain family 7 member A (CLEC7A; DECTIN1); laminarin	<i>In vitro</i> and mouse studies suggest DECTIN1 chimeric antigen receptor (CAR)-expressing T cells could be used to treat opportunistic fungal infections by targeting fungal laminarin. In cocultures of <i>Aspergillus</i> and CAR T cells, DECTIN1 CAR-expressing T cells decreased viability and hyphae lengths of germinating <i>Aspergillus</i> spores compared with no treatment or treatment with CD19 CAR T cells. In immunosuppressed mice with invasive <i>Aspergillus</i> infection, Dectin1 CAR T cells decreased pulmonary <i>Aspergillus</i> load and led to smaller cutaneous fungal lesions compared with control T cells. Next steps include designing CAR T cells that target other carbohydrates produced by pathogens and tumor cells.	Patent and licensing status undisclosed	Kumaresan, P.R. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online July 7, 2014; doi:10.1073/pnas.1312789111 Contact: Laurence J.N. Cooper, The University of Texas MD Anderson Cancer Center, Houston, Texas e-mail: ljncooper@mdanderson.org
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