This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Musculoskeletal disease	Family with sequence similarity 20 member C (FAM20C)	<i>In vitro</i> studies identified FAM20C as a protein kinase that phosphorylates extracellular proteins and that could be targeted to treat Raine syndrome, a rare congenital disorder characterized by lethal bone dysplasias. A series of <i>in vitro</i> studies showed that FAM20C is a Golgi casein kinase that phosphorylates proteins for cell secretion, including those involved in bone mineralization. In human osteosarcoma cell lines, mutant forms of FAM20C associated with Raine syndrome showed lower ability to phosphorylate osteopontin (OPN; SPP1), a protein that mediates bone remodeling, than the wild-type protein. Next steps could include screening for compounds that improve FAM20C activity.	Patent and licensing status unavailable	Tagliabracci, V.S. <i>et al. Science</i> ; published online May 10, 2012; doi:10.1126/science.1217817 Contact: Jack E. Dixon, University of California, San Diego, La Jolla, Calif. e-mail: jedixon@ucsd.edu
<i>SciBX</i> 5(21); doi:10.1038/scibx.2012.553 Published online May 24, 2012				