SciBX
Science-Business eXchange



## This week in therapeutics

| Indication | Target/marker/pathway | Summary | Licensing status | Publication and contact information |
|---|---|---|---|---|
| **Infectious disease** | | | | |
| Influenza virus | Influenza virus neuraminidase | *In vitro*, cell culture and mouse studies suggest covalent neuraminidase inhibitors could be useful for treating influenza infection. *In vitro*, a class of 2,3-difluorosialic acid derivatives showed longer-lasting inhibition of neuraminidase activity than the marketed neuraminidase inhibitors Relenza zanamivir and Tamiflu oseltamivir. In cell culture, the lead compound showed more potent inhibition of Relenza-resistant influenza A virus and influenza B virus than Relenza. In a mouse model for lethal influenza infection, the lead compound decreased viral load and increased survival with an effect comparable to that of Relenza. Next steps include out-licensing and preclinical development of the lead compound.<br>Relenza is marketed by GlaxoSmithKline plc and Biota Pharmaceuticals Inc. to treat and prevent influenza A.<br>Tamiflu is marketed by Roche and Gilead Sciences Inc. to treat and prevent influenza A.<br>Two other neuraminidase inhibitors are marketed outside the U.S. to treat and prevent influenza infection: PeramiFlu peramivir from BioCryst Pharmaceuticals Inc., Green Cross Corp. and Shionogi & Co. Ltd., and Inavir laninamivir from Daiichi Sankyo Co. Ltd. and Biota. | Patent pending; available for licensing from CDRD Ventures Inc. | Kim, J.-H. *et al. Science*; published online Feb. 21, 2013; doi:10.1126/science.1232552<br>**Contact:** Stephen G. Withers, The University of British Columbia, Vancouver, British Columbia, Canada<br>e-mail: withers@chem.ubc.ca |

*SciBX* 6(10); doi:10.1038/scibx.2013.241
Published online March 14, 2013