### This week in therapeutics

<table>
<thead>
<tr>
<th>Indication</th>
<th>Target/marker/pathway</th>
<th>Summary</th>
<th>Licensing status</th>
<th>Publication and contact information</th>
</tr>
</thead>
</table>
| Cancer     | K-Ras (KRAS)           | In vitro and mouse studies suggest rapamycin plus a bisphosphonate could help treat KRAS-mutant NSCLC. In lung cancer cells expressing a KRAS activating mutation, a lipophilic bisphosphonate induced cell death by inhibiting protein prenylation and blocking KRAS activation. In a mouse model of KRAS-mutant cancer, the bisphosphonate plus rapamycin suppressed tumor growth more than either agent alone. Next steps include testing marketed bisphosphonates plus rapamycin in patients with lung cancer. Novartis AG markets the bisphosphonate Reclast zoledronic acid to treat musculoskeletal disorders and bone metastases. At least six other companies market bisphosphonates to treat musculoskeletal disorders. | Provisional patent application filed; available for licensing | Xia, Y. et al. Sci. Transl. Med.; published online Nov. 19, 2014; doi:10.1126/scitranslmed.3010382  
Contact: Inder M. Verma, Salk Institute for Biological Studies, La Jolla, Calif.  
e-mail: verma@salk.edu  
Contact: Eric Oldfield, University of Illinois at Urbana-Champaign, Urbana, Ill.  
e-mail: eoldfield@illinois.edu  
Contact: Yonghui Zhang, Tsinghua University, Beijing, China  
e-mail: zhangyonghui@tsinghua.edu.cn |

SciBX 7(48); doi:10.1038/scibx.2014.1405  
Published online Dec. 18, 2014