SciBX
Science-Business eXchange

THE DISTILLERY

## This week in therapeutics

| Indication | Target/marker/ pathway | Summary | Licensing status | Publication and contact information |
|---|---|---|---|---|
| **Neurology** | | | | |
| Alzheimer's disease (AD) | Sirtuin 1 (SIRT1) | A study in mice suggests that agonizing SIRT1 could help treat AD. In a mouse model of AD, brain-specific disruption of Sirt1 led to greater formation of pathogenic β-amyloid (Aβ) plaques and behavioral defects and lower survival than normal expression of SIRT1. In mouse brain extracts, brain-specific Sirt1 knockout led to less proteolytic activity by α-secretase than did normal Sirt1 expression. α-Secretase is an enzyme that cleaves the precursor of Aβ to generate a nonpathogenic form of the molecule. Next steps include testing the effect of small molecule SIRT1 agonists or SIRT1 overexpression in mouse models of AD. GlaxoSmithKline plc's Sirtris Pharmaceuticals Inc. unit has SIRT1 agonists GSK2245840/SRT2104 and GSK184072 in Phase II testing for type 2 diabetes and SRT501 in Phase II testing for multiple myeloma. These and other Sirtris Pharmaceuticals compounds are in preclinical and Phase I testing for a range of metabolic, neurological and oncologic indications. | Patents related to study owned by Sirtris Pharmaceuticals; unavailable for licensing | Donmez, G. *et al. Cell*; published online July 23, 2010; doi:10.1016/j.cell.2010.06.020 **Contact:** Leonard Guarente, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: leng@mit.edu |

*SciBX* 3(31); doi:10.1038/scibx.2010.962
Published online Aug. 12, 2010