September 18, 2020

by **Joel Berletch**, University of Washington

A second X chromosome contributes to resilience in a mouse model of Alzheimer's disease

Davis et al.

Sex chromosome complement is an important, yet understudied variable which contributes to differences in Alzheimer's disease (AD) outcomes. Males with AD show increased death rates and worse cognitive characteristics than females despite similarities in hallmarks of AD causation, suggesting a disadvantage with early- and late-onset AD. Using meta-analysis and an elegant AD mouse model designed to isolate genotypic sex as a variable, this study investigates how X chromosome dosage may provide a protective effect for females in AD. To that end, they show the X-linked master epigenetic regulator, Kdm6a plays a key role in ameliorating the deleterious effects of AD in this model.

A second X chromosome contributes to resilience in a mouse model of Alzheimer's disease