

A rapid AAV-based mouse model of amygdala-targeted human TDP-43 overexpression recapitulates pathological, multimodal behavioral and proteomic deficits



Yi Chen¹, Tingqi Zhou², Hongzhe Wang¹, Yan Gu³, Lang Wang², Benyan Luo¹, Guoping Peng¹

¹ Department of Neurology, The First Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, China; ² School of Brain Science and Brain Medicine, Zhejiang University, Hangzhou, China; ³ Center for Stem Cell and Regenerative Medicine, Zhejiang University School of Medicine, Hangzhou, China.

INTRODUCTION

Transactivation response DNA-binding protein 43 (TDP-43) pathology, characterized by phosphorylation and aggregation, is a defining feature of frontotemporal lobar degeneration (FTLD) that correlates with neurodegeneration and cognitive decline. While the amygdala is recognized as a critical early site of neurodegeneration across the FTLD spectrum, its specific contribution to pathogenesis remains under-explored due to a lack of focal *in vivo* models. Here, we established an AAV-based mouse model to characterize the pathological, behavioral, and molecular consequences of amygdala-centered TDP-43 proteinopathy.

RESULTS

