

Description of Additional Supplementary Files:

Supplementary Data 1: This data set is the summary of the genome-wide genetic screen in the *Drosophila* model of Alexander disease. Sheet 1 lists all the transgenic RNAi lines tested. Sheet 2 and Sheet 3 list suppressors and enhancers identified in the screen. Related to **Fig. 1** and **Supplementary Fig. 1**.

Supplementary Movie 1: This movie is a three-dimensional (3D) reconstruction of F-actin bundles (Red) and GFAP (Green) in the astrocyte of a 3-month-old Alexander disease model mouse (*GFAP^{R236H/+}*). Related to **Fig. 4a** and **Supplementary Fig. 5a**.