



Figure S5. Additional data related to the role of ASJ neurons in lifespan regulation. (A) RNAi of *tax-4* and *tax-2* genes in ASJ neurons using a transgene does not affect lifespan at low temperatures (*xuEx2415* vs. WT: $p=0.523$; *xuEx2387* vs. WT: $p=0.346$). (B) RNAi of *unc-13* and *unc-31* genes in ASJ neurons

using a transgene does not affect lifespan at low temperatures (*xuEx2083* vs. WT: $p=0.487$; *xuEx2113* vs. WT: $p=0.367$). (C) RNAi of *ins-6* and *daf-28* genes in ASJ neurons using a transgene does not affect lifespan at low temperatures (*xuEx2140* vs. WT: $p=0.211$; *xuEx2141* vs. WT: $p=0.301$; *xuEx2133* vs. WT: $p=0.543$). (D-I) Deficiency in other lifespan-regulating transcription factors, such as HSF-1, SKN-1, PHA-4, and DAF-9/DAF-12 does not block the ability of ASJ neurons to regulate lifespan at warm temperature. p values are indicated (log-rank). (J) *hsp-4p*::GFP (UPR^{ER} reporter), *hsp-6p*::GFP (UPR^{mt} reporter), and *hsp-16.2p*::GFP (HSR reporter) are not up-regulated in worms expressing ASJ::*TeTx* transgene. $n \geq 35$. Error bars: SEM. Experiments were performed at 25 °C.