## LONGEVITY REGULATING PATHWAY - WORM Environmental cues (Stress, etc.) Insulin signaling pathway K16172 DNA DNA Stress resistance. **+**p PI3K-Akt signaling pathway GST-4 K19765 ► Inhibition of protein aggregation K18463 K19766.. K18461 Dietary restriction DNA Oxidative stress resistance K05638 →MAPKKK Oxidative stress mTOR signaling pathway DNA K08035 🏲 Autophagy -Longevity Regulation of autophagy K12824 K19770 DNA Germline ablation ➡ Lipolysis Dafachronic acids Oleic acid Fatty acid desaturation Hypoxic conditions HIF-1 signaling pathway **™** Olapanb Mitochondrial unfolded protein response (UPR $^{\mathrm{mt}}$ ) Velipanb Chaperones ್ರ-Early response Mitochondrial biogenesis Proteases MAM NAD+ Misfolded-proteins ୍ଦ୍ର<u>-</u> --- ---Antioxidants NR Import machinery Mitophagy \_\_\_\_ Glycolysis Rapamycin Mitonuclear protein imbalance K04374 - حت**ي** Resveratrol Delayed response

ROS

K09408