Department of Life Science

Pathomechanism study and drug identification of neurodegenerative diseases

Major objectives of my studies: (1) Generating *Drosophila* models for various neurodegenerative diseases; (2). Dissecting the underlying pathomechanisms of these diseases; (3) Identifying druggable targets and screening potential compounds.

Techniques used in study

Drosophila models for neurodegenerations: Generation of gain- or loss- of function models using germline transformation: Alzheimer's disease, SCA3, SCA12, SCA17 and SCA19/22
Phenotypic and pathological characterization: Degenerative morphological changes, Motor function, Lifespan
Gene expression and function characterization: qPCR, WB, IHC, Co-IP
Drug screening and evaluation

Ming-Tsan Su, Associate Professor
Department of Life Science, College of Science
mtsu@ntnu.edu.tw

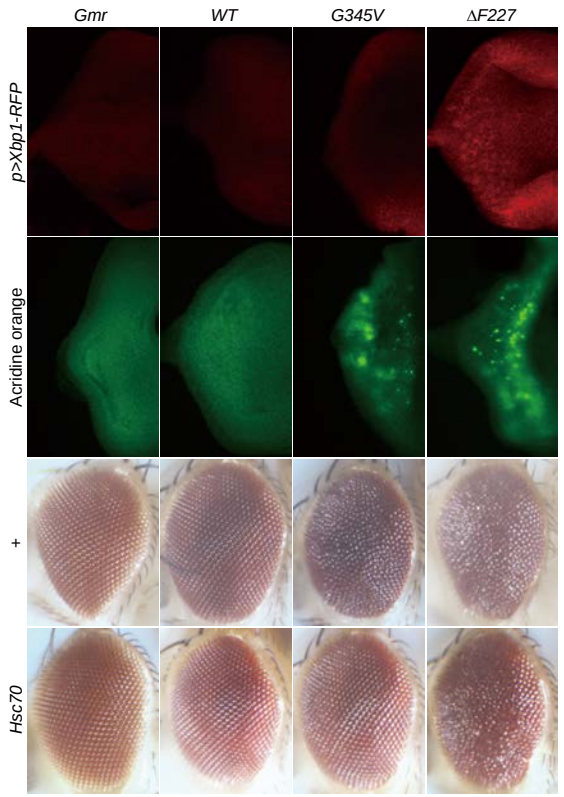
Background:

PhD in Biology, University of Michigan, Ann Arbor, MI, USA

Funding:

Ministry of Science and Technology

Mutant KCND3 induces ER stress, and ER chaperones Hsc70 suppresses the neurotoxicity of the mutant KCND3 proteins



Publications

- Hsu, T.C., Wang, C.K., Yang, C.Y., Lee, L.C., Hsieh-Li, H.M., Ro, L.S., Chen, C.M., Lee-Chen, G.J. and Su, M.T. * (2014) Deactivation of TBP contributes to SCA17 pathogene-sis. Hum Mol Genet, 23, 6878-6893.