

Dissecting the molecular mechanisms of neurodegeneration and protective roles of miRNAs in Drosophila SWS/NTE neuropathy model

Initiative: Trilaterale Partnerschaften – Kooperationsvorhaben zwischen Wissenschaftler(inne)n aus der Ukraine, Russland und Deutschland

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It is planned to use a novel approach to investigate the molecular mechanisms promoting hereditary and toxicity-induced neurodegeneration. Identification of the key factors (e.g. novel SWS interactors or certain miRNAs) that control SWS function upon aging and stress will provide valuable new insights into the mechanisms mediating neuropathy and will facilitate the discovery of novel drug targets to combat age-related neurodegeneration. Presently, the amount of data on the role for miRNAs in neurodegenerative disorders is scarce, while their potential as new therapeutic agents and novel drug targets is tremendous. Thus, this project will provide new directions for therapeutic intervention and will specifically suggest the use of neuroprotective miRNAs as new attractive approaches to modulate the activity of critical enzymes during aging or under stress conditions.

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