



***Drosophila* Models for Neurodegenerative Diseases: Achievements and Prospects**

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Message from the Guest Editors

Neurodegenerative diseases affect an ever-increasing aging population. The disorders range from motor dysfunction to psychiatric troubles and dementia. So far, no cure is available, but steady progress is being made. Part of this progress is due to studies in the fruit fly *Drosophila* which have led to major insights into the cellular and molecular mechanisms underlying neurodegeneration.

Here, we aim to shed light on the benefits of using *Drosophila* to complement, or even overcome the limitations of studies carried out in humans and other animal models. The advantages of *Drosophila* are primarily the ease with which it is possible to perform in vivo studies that cover all aspects of the diseases from genes to circuits and behavior; the well-described anatomy and cellular organization of its brain, which is now close to being completely described at the level of neural circuits and synaptic connections; and the dazzling variety of genetic tools that are continuously developed and improved to study gene functions and neuronal activity in situ at cell and circuit resolution.





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Message from the Editor-in-Chief

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