DEMENTIA
RESEARCH

SYNAPSIS FOUNDATION SWITZERLAND

Principal Investigator Grant

Project

Simon Sprecher:
"Characterizing mechanisms of Amyloid-beta mediated enhanced forgetting and learning defects in a Drosophila model"

Granted amount	CHF 297'052142
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Main applicant

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Characterizing mechanisms of Amyloid-beta mediated enhanced forgetting and learning defects in a Drosophila model

Alzheimer's disease is a devastating cognitive disease with increasing age. While several genetic and molecular pathways have been identified to be linked to Alzheimer's disease our understanding of the mechanisms causing cognitive defects during early stages remains rather poor.

Mechanistic studies in genetic animal models allow us to perform invasive experiments that provide critical insight into how the small toxic peptide Ab42, that accumulate in Alzheimer patients cause cognitive defects. We will use a model for early progressive cognitive defects, which we have recently developed using powerful genetics of the fruit fly.

In this project we aim to identify drugs and genes that ameliorate cognitive defects in the animal model opening avenues for direct translational approaches.