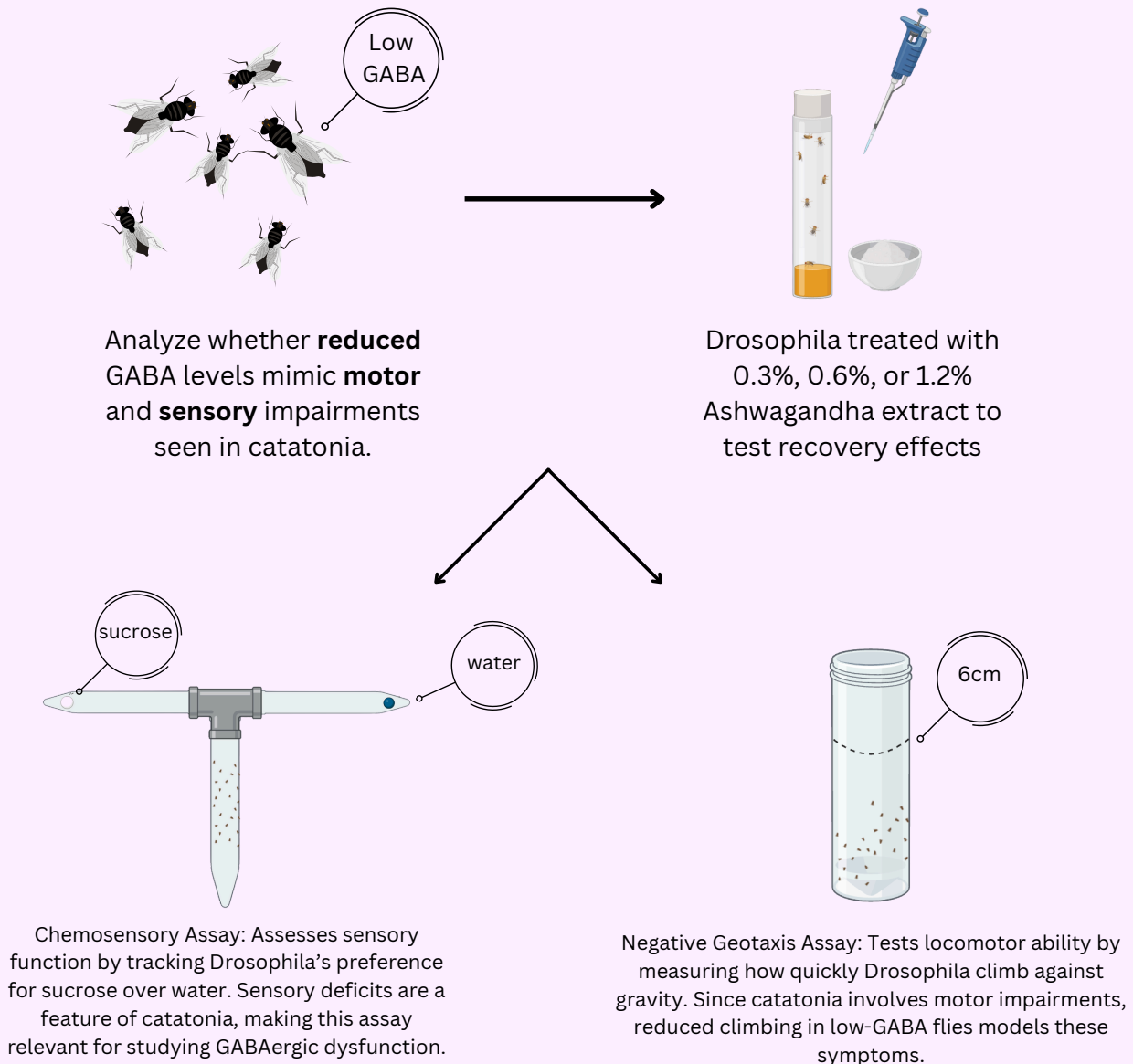


# Methodology

The experiment examines the behavioral effects of **Ashwagandha-induced** modulation of **GABAergic dysfunction** in *Drosophila melanogaster* as a model for catatonia.



- **Experimental Setup:** Identified low GABA *Drosophila* as a model for catatonia, divided them into control and Ashwagandha-exposed groups (0.3%, 0.6%, 1.2%).
- **Negative Geotaxis Assay (Motor Function):** Tested climbing ability over 10 seconds to assess locomotion deficits, analyzed using one-way ANOVA.
- **Two-Choice Chemosensory Assay (Sensory Response):** Measured preference for sucrose vs. water to evaluate sensory perception, analyzed using t-tests.
- **Data Analysis & Relevance:** Compared behavioral improvements across groups to assess Ashwagandha's effects, validating *Drosophila* as a catatonia model.