

# Investigating the Potential of Streptonigrin as a Treatment for Neurodegeneration in Drosophila.

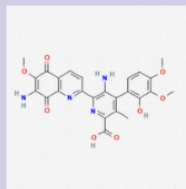
Ashley Li, Massachusetts Academy of Math and Science



RQ: Does Streptonigrin have potential as a treatment for Alzheimer's and related neurodegenerative diseases?

HYP: Streptonigrin will promote heterochromatin formation, silencing transposable element activity and reducing neurodegenerative symptoms.

What concentration of Streptonigrin should be used?

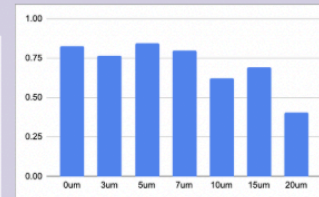


(different concentrations of streptonigrin)



(arrows are indicative of locomotive ability)

Average percentage of flies that reached the top of the vial in 2 minutes.



P-VALUE



0um	0.8238095238
3um	0.7654320988
5um	0.8428571429
7um	0.7976190476
10um	0.6231884058
15um	0.6933333333
20um	0.4041666667

Concentrations 7 micro moles and lower are safe to work with on drosophila.

Streptonigrin does, at  $\geq 10$  micro moles, have significant impact on the locomotive ability of the fruit fly

Concentrations 7 micromoles and lower should be used moving forward when working with transgenic flies.