

This laboratory (Selimovic *et al.*, 2010) showed that room light decreases rhodopsin in *Drosophila* photoreceptors. We still believe those published quantitative measurements. However, we did present a confocal image of the Rh1-GFP stock we used in this study with very weakly fluorescent rhabdomere tips in flies that had been maintained in the light for 6 days. Now we understand that, in addition to light-induced decreases in rhodopsin, degenerative changes were also contributing to the weak fluorescence we observed.

One question remains. Does Rh1-GFP, as well as Rh1 without GFP attached, contribute to the pseudopupil darkening (Figure 1 A vs. B)? Recall that the pseudopupil darkening was our way to visualize the photoconversion of rhodopsin to metarhodopsin. In other words, we wonder whether the attachment of GFP to Rh1 interferes with conversion of rhodopsin to metarhodopsin.

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References: Selimovic, A., *et al.*, 2010, Dros. Inf. Serv. 93: 1-2; Stark, W.S., 2005, Invest. Ophthalmol. Vis. Sci. 46 (on line at <http://www.abstractsonline.com/viewer/viewAbstract.asp?CKey={DE1F1B1C-574A-451F-A628-89C4164C2BD7}&MKey={74423071-0FB2-42B6-B3C9-3787D20BDD73}&AKey={01DBD563-E053-4A16-A83F-48E737512973}&SKey={F25B894D-8AD1-475C-9042-FEF560594F56}>); Stark, W.S., and C.F. Thomas 2004, Molec. Vision 10: 943-955 (on line at <http://www.molvis.org/molvis/v10/a113>).



### **A comparison between the effect of aqueous and methanolic extract of *Decalepis hamiltonii* on the level of alcohol tolerance in *Drosophila melanogaster*.**

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The oxidative damage of biological molecules is an important event in the development of a variety of human diseases. Antioxidants, especially natural ones, have potential applications in prevention or cure of such diseases. *Decalepis hamiltonii* (family: Asclepiadaceae) has been shown to possess potent antioxidant properties.

The present study was carried out to check whether the root extract of *D. hamiltonii* has any neuroprotective potential. For this purpose, Oregon K strain flies were divided into three groups, viz., control, *D. hamiltonii* aqueous extract – fed, and *Decalepis hamiltonii* methanolic extract – fed ones. The exposure chamber was made for each group in which 8 flies of same sex were transferred by aspiration. Cotton stubs were coated with 0.5 ml ethanol and subsequently inserted into exposure vials. Numbers of stationary flies were recorded for each minute and the time required for sedation of 50% flies was documented.

Present study revealed that the flies fed on *Decalepis hamiltonii* aqueous extract containing media have relatively 30 percent higher ST50 (50% sensitivity) value compared to control and *Decalepis hamiltonii* methanolic extract – fed ones.

It can be concluded that antioxidant properties of this plant extract, especially aqueous one, can give higher degree of protection to the flies against oxidative stress induced by ethanol.