**Change in Expression of The Autism-Related Gene *Neuroligin-3***

**Affect Social Spacing and Longevity in *Drosophila melanogaster***

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*Drosophila melanogaster* is a fundamental model for genetic studies of behaviour and longevity. My research explores the autism-related *neuroligin 3* (*nlg3*) gene's potential effects on lifespan and behaviour in Drosophila by employing overexpression techniques. Utilizing the Gal4-UAS system, I manipulated *nlg3* expression in flies carrying a Trojan genetic construct for *nlg3* (*nlg3-Gal4*), facilitating precise gene expression mimicry. The *nlg3-Gal4* line itselfdisplays a reduction in *nlg3* expression and crossing it with a line carrying a uas-*nlg3*cDNA construct allows for gene overexpression. Survival analysis and social spacing assays were conducted to evaluate the impact of altered *nlg3* expression on longevity and social behaviour. My findings indicate that overexpression of the cDNA in that mutant background restores normal longevity and social spacing. These discoveries not only advance our understanding of the genetic determinants of aging and social behaviour in Drosophila, but also hint at broader implications for aging research in more complex organisms.