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# THE EFFECT OF A STRUCTURED MOLECULE OF DHA ON THE QUALITY AND LONGEVITY OF *CAENORHABDITIS ELEGANS*

Treball de Fi de Grau  
Grau de Bioquímica i Biologia molecular

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## ABSTRACT

One of the approaches being investigated to address the problem of ageing is nutrition, specifically docosahexaenoic acid (DHA) supplementation. This nutrient may help to improve cognitive function and reduce the risk of neurodegenerative diseases. This study evaluates the effects of a structured DHA molecule in *C. elegans* organisms, specifically the wild-type strain and a knocked-out mutant strain for the DAF16/Forkhead O (FOXO) factor. Several phenotypic and gene expression studies are used for the study. The results show that DHA-triglyceride (TG) has beneficial effects and that the DAF16/FOXO factor may be involved in these effects.