

CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s)	Project Number
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	35719
Project Title	
The Use of Allicin and Vitamin D3 to Reduce Stress in Wild Type	
Caenorhabditis elegans Measured by Immunohistochemistry	
Abstract	
Objectives/Goals	Alling Alling found in Coulie
and vitamin D3, by conducting immunohistochemistry on Caenorh	abditis elegans
Methods/Materials	an and choganes.
Wild type C. elegans	
Hsp70 protein antibody	
Tunicamycin antibiotics	
Betamethasone	
Immunohistochemistry kit for c elegans	
Fresh Organic Garlic	\mathbf{N}
Age Synchronization	7
B Expose worms to tunicamycin	
C. Treat worms with Allicin, Allicin with Vitamin, and Betamet	hasone Measuring hsp-70 protein by
Immunohistochemistry methods	
A. Freezing plates of worms on a slide	
B. Methanol and Acetone fixation	
1. Secondary antibody	
D.Mounting slides	
Scoring Immunohistochemistry hsp-70 signal	
Results	tracted with alligin and vitamin D2
The mean level of stress for the works trend with allicin was 0.0	87 while the mean level of stress for
the worms treated with the positive control was 1.7. There is 99% of	confidence that the difference in mean
level of stress between the allicin treatment and the positive contro	l (solely treated with tunicamycin
treatment) lies between 0.389 and 2.98, which indicates that there i	s a significant lowering in the level of
protein) followed he hypothesis the allicin and vitamin D3 had m	ostly light brown spots while the
Summary Statement	ostry light brown spots while the
I found a potential treatment for Alopecia areata using Garlic and V	Vitamin D3 by reducing stress in C
elegans using immunohistochemistry procedures.	
Derticinent of the Advanced Student Descent Drogram at Schreichl Sciences Lab	
i articipant of the Auvanceu Student Reseach Flogram at Schnam Sciences Lab	