Name(s)
Haley L. Brooks

Project Number
S1301

Project Title
The Effect of Heteractis magnifica on the Cell Viability of Multicentric Canine Lymphoma: Year II

Abstract

Objectives/Goals
Venom from the sea anemone, Heteractis magnifica, has bioactive and cytotoxic compounds. In this study, cytotoxicity induced by Heteractis magnifica venom was investigated using a hemocytometer and a trypan blue solution to determine malignant canine lymphoid CLL-1390 cell viability.

Methods/Materials
Heteractis magnifica venom was obtained by the milking technique. This process is proven not to be harmful to the animal. The CLL- 1390 cell line was obtained from the Leukocyte Antigen Biology Laboratory at UC Davis. The cell line was supplemented with a hybridoma media.

Results
If the Heteractis magnifica venom is introduced to the multicentric canine lymphoma cells, then multicentric canine lymphoma cell viability will be significantly reduced, appears to be supported. The result of the experiment was a reduction of cell viability to an average of 12.82%.

Conclusions/Discussion
Overall, H. magnifica venom was highly cytotoxic to CLL-1390, and the phenomenon could be the killing phenomenon via the death receptor- mediated and the mitochondria-mediated apoptotic pathways.

Summary Statement
I investigated and examined a novel aproach to reduce malignant cell viability through sea anemone venom.

Help Received
I conducted all work independently although received extensive support from Dr. Stan Kunin, Dr. Sue Downing, and Kristy Harmon.