

Vita

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Universities
Attended: University of New Brunswick (2019)
Bachelors of Science

University of New Brunswick (2023)
Masters of Science
Biology

Conference Presentations:

Atlantic Regional Comparative Physiology Workshop. "Biomedical Cannabis Research, A Topic of High Interest" St. Andrews, (October 2019)

Characterizing the effects of poorly studied cannabinoids on larval zebrafish behaviour

UNIVERSITY OF NEW BRUNSWICK

THESIS DEFENCE AND EXAMINATION

in Partial Fulfillment

of the Requirement for the Degree of
Master of Science

by

Emily R. Moore

in the Department of Biology

U.N.B., Fredericton, N.B.

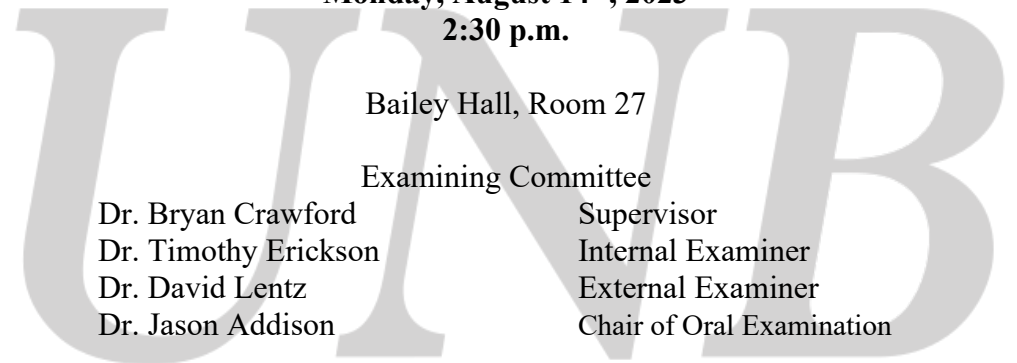
Monday, August 14th, 2023
2:30 p.m.

Bailey Hall, Room 27

Examining Committee

Dr. Bryan Crawford
Dr. Timothy Erickson
Dr. David Lentz
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Supervisor
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Abstract

Cannabis sativa has been used medicinally for thousands of years. However, research on its health effects has been hindered due to prohibition and social stigma. Legalization has provided Canadian researchers with the opportunity to apply modern research methods to better understand the benefits and dangers of using pharmaceutical cannabinoids. The two main phytocannabinoids are tetrahydrocannabinol (THC) and cannabidiol (CBD). In addition, there are many lesser known phytocannabinoids, such as cannabinol (CBN), cannabigerol (CBG), cannabichromene (CBC), and many more. There are also many isomeric variants of THC, CBD, and other phytocannabinoids, which are poorly studied. The objective of my research was to find a mixture of cannabinoids (possibly including unusual isomers or other understudied cannabinoids) that antagonize seizures and that have reduced psychogenic effects. Due to instrument limitations, I was not able to test the cannabinoids using the seizure model. In this thesis I document

the behavioural effects of THC isomers as well as unexpected deleterious effects of CBD and CBN. I also bring attention to the importance of cannabinoid solubility in the context of aquatic research models. This research will improve our fundamental understanding of THC isomers and other cannabinoids as therapeutics, and refine procedures for using zebrafish or other aquatic species as model organisms in cannabinoid research.