TOXICITY AND AN ANTIOXIDANT ACTIVITY FROM THE SEEDS OF *Annona muricata* (SOURSOP)

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JANUARY 2020

This Final Year Project entitled **"Toxicity and An Antioxidant Activity from Seeds of *Annona muricata* (Soursop)"** was submitted by Ejira Izzaty Binti Rosli, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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Date: **20 JANUARY 2020**

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ABSTRACT

TOXICITY AND AN ANTIOXIDANT ACTIVITY FROM THE SEEDS OF *Annona muricata* (SOURSOP)

Annona muricata L. (Annonaceae), commonly known as "soursop" or "guanabana" is grown commercially as a fruit crop throughout the tropical regions of the world. All parts of *Annona muricata* tree are used in natural medicine in the tropic including the twigs, leaf, root, fruit and seeds. The crushed seeds specifically was used to against head lice and worms. Acetogenins contained can also cure against cancerous cell. The problem is when people are unaware of the important compounds that may contain in the by-product they are throwing away such as the peel and the seeds. The significance of doing this research may discover ways to the finding of medicinal value that can be used to treat diseases other than able to improve society's healthy lifestyles. Therefore, the objectives of this study is to carry out an experiment on the level of toxicity and an antioxidant activity in the seeds of *Annona muricata*. In the experiment, the extraction of seeds was produced by mixing the sample with 4:1 (methanol:chloroform). The end product of extraction in the form of fine powder was used in DPPH radical scavenging assay to identify the antioxidant activity while the toxicity level was determined using the brine shrimp lethality assay. For both experiments, positive control (potassium dichromate and ascorbic acid) and negative control (methanol and saline water) were used. The result obtained show seed of *Annona muricata* contain a high antioxidant In conclusion, *Annona muricata*'s seed shows the highest antioxidant level with 83.07% at the higher concentration (1000µg/ml) and at the lowest reading of antioxidant level at 71.91%. It shows that the compound of the antioxidant in the seed can help in reducing the cancer, damaging the cells and others. Hence, for the toxicity level the seeds of *Annona muricata* show the non-toxic level as the highest concentration 100µg/ml with 93.3% of mortality and the lowest concentration with 73.33%. As conclusion, this studies might help the researchers in producing new drugs that help in the health as it containing the higher antioxidant levels.