

Synergistic effect and apoptosis induction of flavonoid and acetogenin enriched fractions of *Annona muricata* leaves in Molt-3 cells and Peripheral Blood Lymphocytes

By

I. Suganya

(Reg. No. 18PHBCF003)

Supervisor

Dr. R. Nirmaladevi

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Recommendation for future study

The outcome of our current research work has shown the possibilities of tapping the potential of flavonoid and acetogenin enriched fraction of *Annona muricata* leaves for further research. We hereby, recommend the following points that can be taken up for further investigation.

- The anticancer activity of flavonoid and acetogenin enriched fraction of *Annona muricata* leaves can be further tested using other Acute lymphoblastic leukemia cell lines and also in other cancer cell lines.
- The synergy of flavonoid and acetogenin enriched fraction of *Annona muricata* leaves can be further tested in experimental animals.
- Acetogenin fractions targeting cancer cells specifically can be used as a source for liposome preparation and ease the process of drug delivery as it lacks drug likeliness due to violation of Lipinski's rule of five when arrested *in silico*.
- Animal models can be used to conduct *in vivo* research to validate the drug's anti-cancer efficacy.
- Clinical trials can be carried out using human volunteers for their pharmacological validation.