

CHAPTER VII

CONCLUSIONS AND FUTURE DIRECTION

7.1 CONCLUSIONS

1. There were no differences in the number of CD8⁺ T lymphocytes in HIV patients with antiretroviral therapy given mangosteen (*Garcinia mangostana*) peel extract and control group.
2. There were no differences in CD8⁺CD38 expression in HIV patients with antiretroviral therapy given mangosteen (*Garcinia mangostana*) peel extract and control group.
3. Mangosteen (*Garcinia mangostana*) peel extract has no effects towards the number of CD8⁺ T lymphocytes and CD8⁺CD38 expression in HIV patients with antiretroviral therapy.

1.2 FUTURE DIRECTIONS

1. Controlled intervention trials of the efficacy of xanthenes in HIV patient, as well as characterization of the absorption, metabolism and elimination of these compounds, remain quite limited. Also, the potential toxicity of chronic ingestion of formulations containing mangosteen pericarp and its extracts has received minimal attention. Despite the numerous health claims on advertising sites for producers and retailers of products and beverages containing mangosteen, there is insufficient scientific evidence at this time to support the

use of mangosteen containing supplements as enhancers of health and useful adjuvants for treatment of various pathophysiological illnesses.

2. According to the results of this study, it should be done another research to find out whether Mangosteen (*Garcinia mangostana*) peel extract has an immunosuppressant effect for HIV patients.
3. Further investigation is needed to elucidate whether mangosteen interact or maybe counteract with antiretroviral therapy in HIV patient.
4. According to the results of this study, it may needed further research to complete this research with viral load examination.
5. According to the results of this study, it may needed to investigated more whether there was correlations between Th/Tc ratio and CD8⁺CD38.
6. It may needed further research based on this study with a longer time period and higher study sample where the study sample are HIV patient with early antiretroviral therapy.