

## V. CONCLUSION AND SUGGESTION

### A. Conclusion

1. Supplementation of jicama fiber at a dose of 25% in high-fat diet could significantly prevent an increase in malondialdehyde (MDA) levels and a decrease in catalase activity in the intestines of mice.
2. Supplementation of jicama fiber at a dose of 25% in high-fat diet could significantly prevent the histopathology alteration and inflammation on the intestinal tissue of mice.
3. Supplementation of jicama fiber at a dose of 25% in high-fat diet could significantly prevent an increase in total leucocytes count and a decrease in the mean corpuscular hemoglobin concentration (MCHC).
4. Bioactive compound in jicama fiber particularly cycloartenol and astaxanthin have a potential to inhibit activation of inflammatory signaling pathway based on molecular docking simulation.

### B. Suggestion

In future research, it is better to conduct a more in-depth molecular study of the effect of jicama fiber consumption on indicators of oxidative stress and inflammation in the intestine due high-fat diet intake. In addition, microscopic observations were made using more sensitive staining methods such as immunohistochemistry to detect death cells in the intestine as a response to oxidative stress and inflammation related to obesity.