

## CHAPTER V. CONCLUSION AND SUGGESTION

### 5.1 Conclusion

Based on the research that has been done, it can be concluded:

1. The addition of Mentawai taro tuber preparations in the form of fiber and starch can prevent changes in colon histology in the form of submucosal edema in animal models.
2. The addition of Mentawai taro tuber preparations in the form of flour, starch and fibre can significantly reduce MDA levels in the colon of animal models.
3. Astaxanthin is a potential bioactive compound of Mentawai taro in inhibiting the development of Inflammatory Bowel Disease with binding affinity of  $-9.0$  kcal/mol based on in silico simulation.

### 5.2 Suggestion

Based on the results obtained, it is recommended to conduct further studies on the therapeutic effects of bioactive compounds of *C. esculenta* in reducing the number of pathogenic bacteria in the intestine by comparing other types of tubers. In silico studies can also be continued with dynamic molecular tests.

