

CHAPTER 7

CONCLUSIONS AND SUGGESTIONS

7.1 Conclusion

Based on the results and discussions in this research, the conclusions are as follow:

- 7.1.1 *Oregano* leaves ethanolic extract has antibacterial effects on the growth of *Escherichia coli* in vitro.
- 7.1.2 The Minimal Inhibitory Concentration (MIC) of *oregano* leaves ethanolic extract towards *Escherichia coli* is 5.5% and the Minimal Bactericidal Concentration of *oregano* leaves ethanolic extract is 6%.
- 7.1.3 As the *oregano* leaves ethanolic extract concentration increases, the lesser the number of *Escherichia coli* bacteria growth. This was proved by a strong significant correlation ($r = 0.973$) with a negative correlation direction.

7.2 Suggestions

Based on the conclusions above, there are a few suggestions that can be used to improve future researches:

- 7.2.1 An experiment should be done to find out the uses of *oregano* as natural remedy to control the growth of pathogenic *Escherichia coli*.
- 7.2.2 A further experiment should be done to investigate the underlying (more specific) mechanism of action of *oregano* leaves ethanolic extract on the growth of *Escherichia coli*.

7.2.3 An in vivo experiment should be carried out to determine the effective dose, toxic dose, side effects, and then on human samples before introducing it as a medical treatment to the society.

7.2.4 There must also be an experiment carried out on other known bacteria's to prove that *oregano* leaves ethanolic extract is multifunctional, and hence it becomes an advantage in medical sector.

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