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Determining the Antibacterial Efficacy of Ylang Ylang (*Cananga odorata*) Plant Extract on *Staphylococcus Aureus*

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ABSTRACT

The Ylang Ylang (*Cananga odorata*) plant extract is highly popular among the Commonwealth of the Northern Marianas Islands (CNMI) and is frequently used in local medicine. This can be attributed to its properties as an antiseptic, antidepressant, antiseborrheic, hypotensive, sedative, and nervine substance. It is also used in aromatherapy treatments, perfume, and cosmetic products all over the world. The key chemical constituents of the Ylang Ylang are linalool, germacrene, geranyl acetate, methyl benzoate, and p-cresyl methyl ether, which all contribute to its medicinal effects. With the presence of antibacterial properties, it may be used as an alternative to conventional medicine, but it has yet to be tested. The purpose of this research project is to determine whether the Ylang Ylang plant extract does have an effect on the selected bacteria, *Staphylococcus Aureus*. We hypothesize that the extract will have an effect on the bacteria.

In order to test our hypothesis, we will grow *Staphylococcus Aureus* bacteria in petri dishes. We will test different concentrations of the extract from steam distillation, upon bacterial strains to determine its efficacy, in comparison to a control group. Further research is necessary to discover the benefits of local medicine and suggest an alternative to regular antibiotics.

Key words: Antimicrobial, *Cananga odorata*, *Staphylococcus Aureus*

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