



**DETERMINATION OF POTENTIAL ANTIFUNGAL ACTIVITY OF
METHANOLIC EXTRACT OF *Andrographis paniculata* LEAVES AGAINST
ISOLATED FUNGUS FROM MOLDY BREAD**

By

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**Thesis Submitted in Partial Fulfillment for the Bachelor of Medical
Laboratory Technology (Hons) Faculty of Health Sciences; Universiti
Teknologi MARA**

2017

DECLARATION

I declare that this thesis entitled “DETERMINATION OF POTENTIAL ANTIFUNGAL ACTIVITY OF METHANOLIC EXTRACT OF *Andrographis paniculata* LEAVES AGAINST ISOLATED FUNGUS FROM MOLDY BREAD” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ACKNOWLEDGEMENT

Alhamdulillah. First and foremost gratefulness to Allah SWT, whom with His willing has given me this opportunity and ability to accomplish all my final year project work in a mean time given.

I would like to express my sincere appreciation to Dr. Roslinah bt Mohamad Hussain, my assigned project supervisor. I am honored to be under her supervision for this final year project. The outstanding guidance, support, encouragement, patience and meaningful advice that she gave throughout this final year project has encouraged me to complete this final year project successfully. I would to thanks the Centre of Medical Laboratory Technology (Faculty of Health Science) which had providing complete and comfortable facilities for my research project. I also would like to thank all lecturers and lab staffs of Medicinal Laboratory Technology Department for their guidance, cooperation, support and valuable advice throughout the lab works session.

I also would like to express my thanks and gratitude to postgraduate student, Zayan Nabilah Rasyidah bt Abd Razak for all her guidance, experience, support and advice in order for me to complete this final year project. Deepest thanks and appreciation to my colleagues, Nur Athirah bt Aminuddin, Anis Athirah bt Misri, Izyan Nadhirah bt Yazid and Siti Rahimah bt Yusof for their continuous support and guidance along this reaserch study.

Last but not least, I would like to my parents and my beloved family for their continuous moral support, guidance and valuable advice throughout to complete this final year project. My sincere thank you also to those that that involved in research study for all the guidance and cooperation given

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ABSTRACT

Andrographis paniculata which is also known as “Kind of Bitter” (English) or Hempedu Bumi (Malay) belongs to the family Acanthaceae which is an important medical plant that has been widely used in southern Asia to treat infections and other diseases. *A. paniculata* has been used as antibiotic, antiviral, antimicrobial, anti-inflammatory, anticancer, anti-HIV and anti-allergic agent. *A. paniculata* leaves was collected and authentication was performed. Leaves were extracted with methanol. The fungus samples was collected from moldy bread and cultured on Sabouraud Dextrose agar (SDA). The fungal isolated was identified through macroscopic and microscopic characteristics. The antifungal assay was performed using the disc diffusion method by tested the isolated against different concentration of methanolic extract of *Andrographis paniculata* leaves at 1000, 500, 250, 125, 62.5 and 31.25 mg/ml respectively. Based on the macroscopic and microscopic characteristics, it was suggested that the isolated fungus is presumptively identified as *Penicillium* species. There was no inhibition zone observed when different concentrations of methanolic extract of *Andrographis paniculata* leaves were used within study tested against the isolated fungus. Based on this study, the isolated fungus from moldy bread was presumptively identified as *Penicillium* species and all the different concentrations of methanolic extracts of *Andrographis paniculata* did not show any inhibitory effects towards isolated fungus.

Keywords: *Andrographis paniculata*, methanol, antifungal, *Penicillium*, Voriconazole