



**EFFECT OF METHANOLIC LEAVES EXTRACT OF *Andrographis paniculata*  
ON FUNGUS ISOLATED FROM THE FINAL YEAR PROJECT (FYP)  
LABORATORY, MEDICAL LABORATORY TECHNOLOGY (MLT) CENTRE,  
FACULTY OF HEALTH SCIENCES, UITM SELANGOR, PUNCAK ALAM**

**By**

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## DECLARATION

“I hereby declare that this thesis entitled Effect of Methanolic Leaves Extract of *Andrographis Paniculata* on Fungus Isolated from The Final Year Project (FYP) Laboratory, Medical Laboratory Technology (MLT) Centre, Faculty of Health Sciences, UiTM Selangor, Puncak Alam is based on my original work and has not has been submitted previously or currently for any other degree at UiTM or any other institutions.”

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## ABSTRACT

### **Effect of Methanolic Leaves Extract of *Andrographis paniculata* on Fungus Isolated from the Final Year Project (FYP) Laboratory, Medical Laboratory Technology (MLT) Centre, Faculty of Health Sciences, UiTM Selangor, Puncak Alam.**

Fungus comprises of a diverse group of heterotrophs, where many are saprophytes that digest dead organic matter and organic wastes. Fungal contamination, however, can affect the structural integrity of a building and also affects the humans' olfactory systems by mycotoxins. As herbal plants have antifungal properties such as tannins, terpenoids and flavonoids, this study aims to investigate the antifungal activity of *Andrographis paniculata* methanolic leaves extract against a fungus isolated and identified. Fungus was isolated from Final Year Project (FYP) Laboratory by air sampling onto Sabouraud Dextrose Agar (SDA). Agar plates were incubated in room temperature which is 28°C for about 3 to 7 days. Pure culture of fungus was presumptively identified using morphological (macroscopic) and microscopic characterization, where Lactophenol Cotton Blue Stain (LPCB) was used. The antifungal activity of methanolic leaves extract of *Andrographis paniculata* was evaluated on selected fungal isolate by using disc diffusion method at concentrations of 1000, 500, 250, 125, 62.5, 31.25 mg/mL respectively, that were diluted in DMSO (10%). *Aspergillus* spp. and *Rhizopus* spp. were presumptively identified by both macroscopic and microscopic characterization of two fungal isolates that grew on SDA. In other hand, no inhibitory effects were observed against *Aspergillus* spp. (selected fungus) using different concentrations of *Andrographis paniculata* methanolic leaves extract. The study showed that two species of fungi were isolated from FYP laboratory which were presumptively identified as *Aspergillus* spp. and *Rhizopus* spp. However, it is suggested to do molecular analysis for accurate confirmation of fungi. The *Andrographis paniculata* methanolic extract used in this study failed to express any antifungal activity probably because it was less stable.

**Keywords:** *Andrographis paniculata*, Antifungal activity, Fungus, Fungal Identification, Puncak Alam.