

UNIVERSITI TEKNOLOGI MARA

MICROBIAL TRANSFORMATION OF STEROID

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APPROVAL SHEET

I hereby recommend that the thesis prepared under my supervision by Balqis Haya Ismail entitled Microbial Transformation of Steroid be accepted in partial fulfillment of the requirements for the degree of Bachelor of Pharmacy from the Faculty of Pharmacy, UiTM.

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ABSTRACT

Microbial transformation by endophytes was studied since centuries ago. This phenomenon allows a compound to be modified into another compound by using green synthesis instead of chemical synthesis. In this study, Mesterolone as the substrate undergoes fermentation with identified *Aspergillus* SSW and 11L2. Outline of method involved are media preparation, inoculation of fungi, feeding of substrate, incubation for 6 or 12 days and extraction using ethyl acetate. The extracts were analyzed using TLC and HPLC to indicate the biotransformed products. Besides that, each product extracted was also tested for antimicrobial activity by disk diffusion assay, which include activity against bacteria of *E. Coli* and *B. Subtilis* as well as fungi represented by *A. Niger*. Products only by SSW show potential antimicrobial activity. Further study should be done to purify and identify resulting compound.