

***IN-VITRO* CULTIVATION AND BIOCHEMICAL ANALYSIS OF *PLEUROTUS*
OSTREATUS AND *PLEUROTUS SAJOR-CAJU*: AN APPROACH TOWARDS ITS
MEDICINAL PROPERTIES DISCOVERY**



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ABSTRACT

In Malaysia, *Pleurotus ostreatus* (Abalon mushroom) and *Pleurotus sajor-caju* (Tiram Kerabu mushroom) are most popular as a dietary supplement food. Among the polysaccharides produced by *Pleurotus spp.*, β -1,3-glucans play an important role as biological response modifiers (BRMs). However, most of the biochemical medicinal properties still are not yet found in our Malaysia home-grown *Pleurotus sp.* In our studies, the mating system was successfully occurred in *Pleurotus ostreatus* and *Pleurotus sajor-caju* where new-mated strains were obtained. The best carbon source was starch. Asparagine was the best nitrogen source. *B. subtilis* was a good nitrogen source but poor carbon source for mycelia growth. Biotin, riboflavin and ascorbic acid were the most suitable vitamins for enhanced the growth of mycelia. Meanwhile, β -1,3-glucan and chitin were also successfully to extract out from the cell wall components for further analysis.