

O-07: ANTIMICROBIAL AND ANTITUBERCULAR NATURAL PRODUCTS FROM POLYPORE MUSHROOMS

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Natural products isolated from higher fungi have been found to have properties that are beneficial for human health. In our effort to isolate new biologically active compounds from polypores, 92 mushroom samples were collected from Ontario (Canada), North Carolina and Mississippi. The ethanolic extracts of these samples were screened for antimicrobial, antitubercular, anticancer, and antiprotozoal activities. The crude extract of *Merulius incarnatus* showed 100% growth inhibition against methacillin resistant *Staphylococcus aureus* (MRSA) with an IC₅₀ value of 20 µg/mL in the antimicrobial test. The crude extract of *Cerrena unicolor* was active against *Mycobacterium tuberculosis* with IC₅₀ and MIC values of 39.6 and 5.7 µg/mL, respectively. These two extracts have been subjected to bioassay-guided fractionation and the active components of these mushrooms have been identified. Structure-activity relationship data, based on isolated compounds and synthetic analogs will be presented.

Graduate Student Travel Grant Award Winner