P-106: XENOBIOTIC BIOTRANSFORMATION OF 4-METHOXY-*N*-METHYL-2 QUINOLONE ISOLATED FROM *ZANTHOXYLUM MONOPHYLLUM* P. WILSON

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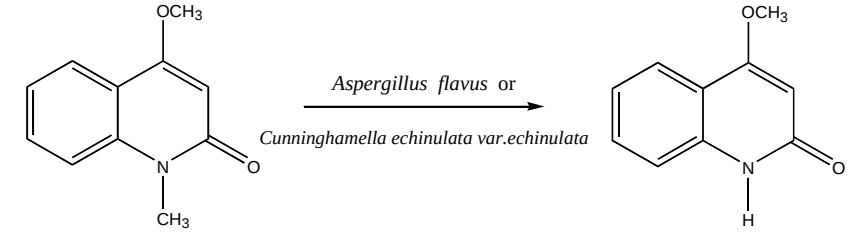
Phytochemical evaluation of *Zanthoxylum monophyllum* P. Wilson has led to the isolation of the alkaloid 4-methoxy-*N*-methyl-2-quinolone in a high yield (0.2 % w/w of total dry weight) and further bioassays indicated a significant activity of this compound against Methicillin-resistant *Staphylococcus aureus* with an IC_{50} of 1.5 µg/ml. Xenobiotic biotransformation on this alkaloid with various ATCC organisms has been conducted with the general goal of increasing the bioactivity of the compound and contribute new leads for further pharmacological research. After screening twenty-eight organisms, one modified alkaloid has been obtained. ATCC 9170 (*Aspergillus flavus*) and ATCC 9244 (*Cunninghamella echinulata* var. *echinulata*) produced the *N*-demethylated form, 4-methoxy-2-quinolone. The recovery of the modified metabolite was better with ATCC 9244, which gave 60% of modified alkaloid versus 20% obtained from ATCC 9170. The antibacterial activity of the alkaloid was completely lost after biotransformation. Further screening is being performed and more results will be presented later.



4-methoxy-N-methyl-2-quinolone **4-methoxy-2-quiolone**