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Anti-MRSA extracts and alkaloidal fractions from *Nephelium lappaceum* L.

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Alkaloidal extracts from *Nephelium lappaceum* L. (Rambutan) were investigated for selective anti-Staphylococcal and anti-MRSA activities. Ethanolic extracts of the pericarp, seeds and leaves were extracted for alkaloids (through a modified Stas-Otto Method I) and had undergone bioassay-guided fractionation via C18 SPE. Resazurin assays were done to determine MIC on clinically isolated *Staphylococcus aureus* and an MRSA variant. It was also used to determine safety on MDCK cell line (a non-cancerous mammalian cell line). Selectivity Index (SI), a ratio of the MDCK IC50 to MIC, was used as the measure of safety. The Ethanolic Pericarp Extract (EPE) was potently inhibitory to both *S. aureus* and MRSA, but was not selective (Sa & MRSA MIC=500 µg/mL, SI= 0.86). The alkaloid extract had similar MIC against MRSA but was more selective (Palk-B, SI>2.00), while the third fraction of the alkaloidal extract had greatly improved antibacterial effect and selectivity (PB-f3, Sa & MRSA MIC=125 µg/mL, SI=5.22). Results suggest the presence of a potent and selective anti-Staphylococcal agent in PB-f3, which is also effective against MRSA.

Biography

Sarne Paul Jazon I graduated with BS in Industrial Pharmacy from the University of the Philippines, Manila. He is currently working in United Laboratories Inc. as a researcher of Natural Products. This study on Alkaloids and Peptides is in cooperation with his group mates as a requirement under the program MS Pharmacy - Pharmaceutical Chemistry.

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