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**PP 026: Activity-guided fractionation of aqueous fraction of acetone extracts of *Pleurotus ostreatus* in the search of anti-inflammatory agents**

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*Pleurotus ostreatus* (P.o) is a culinary-medicinal mushroom grown worldwide. We have reported the anti-inflammatory potential of acetone extract (AE) of P.o and its fractions. This study evaluates the anti-inflammatory activity directed fractionation of the aqueous fraction of acetone extract (AqFrA) in order to identify the fraction having the highest activity. The AqFrA was purified using size exclusion chromatography and four fractions (Fra, Frb, Frc and Frd) were obtained. Anti-inflammatory activity of each fraction was measured using carrageenan induced rat paw oedema model and the effect on reactive oxidative burst of human whole blood was measured by luminol enhanced chemiluminescence activity. Treatment with fractions Frb, Frc and Frd showed significant inhibition of rat paw oedema. Frc and Frd showed inhibition of paw oedema at the 1st, 2nd, 4th and 5th hour when compared with the Control. Frc and Frd showed maximum inhibition of oedema of 77.8 % (4th hr) and 83.7 % (5th hr), respectively. Fra did not significantly impair paw oedema. The Frc and Frd showed 52.5 % and 55.2 % of inhibition on whole blood oxidative burst. Activity guided fractionation resulted in the fractions with higher anti-inflammatory activity than the acetone extract itself. Therefore, Frc and Frd were selected for further fractionations. However, the active anti-inflammatory constituents in AqFrA of P.o remain to be elucidated. It is possible that the main active compounds might be hydrophilic as the activity retained in polar AqFrA.

**Keywords:** *Pleurotus ostreatus*, anti-inflammatory activity, aqueous fraction, column, chromatography, oxidative burst

**PP 027: Fundamental neuroscience research and traditional medicine: investigating the Gut- Brain Axis**

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An increasing health burden and emphasis on health and well-being has driven a global resurgence of alternative health care strategies. The traditional medical practices of Sri Lanka, promotes a holistic approach to health, with synchronized "therapies" modulating multiple physiological systems. A principal therapeutic approach formulating multiple physiological and pathophysiological processes targets the close association of the digestive and central nervous system, where the gastrointestinal tract (GIT), divided into 8 major zones, is considered fundamental to human wellbeing. A spectrum of physiological processes is modulated by the neuro-endocrine substance Serotonin. Our previous work investigated Serotonin-producing enterochromaffin (EC)