

# Proceedings

SLAYS International Conference

2019

Sri Lankan Academy of Young Scientists





## Sri Lankan Spices for Alzheimer's

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Alzheimer's disease, the most common age related neurodegenerative disease that affects memory and cognitive behavior has no cure. Symptomatic treatment involves the use of anticholinesterases. There is an urgent need to discover natural anticholinesterases with high potency. This study was aimed at investigating anticholinesterases activity of spices used in Sri Lankan cuisine. Extracts of spices were screened for anticholinesterase activity using Ellman's method. *Garcinia cambogia*, *Tamarindus indica* and *Myristica fragrans* (mace) showed high anticholinesterase activity. Mace showed the highest activity and chromatographic purification of active extracts afforded six compounds. These compounds were screened for anticholinesterase,  $\alpha$ -glucosidase inhibitory and antioxidant activities. Malabaricone C showed the highest anticholinesterase ( $IC_{50}$  6.56 $\pm$ 0.02 ppm; Donepezil HCl-  $IC_{50}$  0.03 $\pm$ 0.00 ppm) and antioxidant activity ( $IC_{50}$  2.06 $\pm$ 0.04 ppm; Ascorbic acid-  $IC_{50}$  4.55 $\pm$ 0.01 ppm). 3'-Methyl-5'-pentyl-furylarylic acid showed high  $\alpha$ -glucosidase inhibitory activity ( $IC_{50}$  51.02 $\pm$ 0.01 ppm; Acarbose-  $IC_{50}$  265.3 $\pm$ 0.13 ppm) revealing mace as a potent anticholinesterase, antidiabetic and antioxidant agent.