



# Chulangani J. Weerasooriya

Research Scientist

Herbal Technology Section

<b>Qualifications</b>	Master of Science in Chemistry, University of Connecticut, Storrs, CT-Pending Bachelor of Science, Specialized in Chemistry (Honors), University of Peradeniya, Sri Lanka
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<b>Specialized Fields</b>	Investigation of bioactivities and the chemistry of an invasive plant Total synthesis of small molecules such as $\beta$ -lactones, $\beta$ -lactams, 2-methylene oxetane and etc. Building and tweaking methodologies to build up better synthesis routes (e.g.: sphingosine accepters and 2-methylene oxetanes etc.)
<b>Interest Areas</b>	Organic synthesis utilization for different areas (Pharmaceuticals, agriculture, cosmetics etc.)
<b>Publications &amp; Communications</b>	<ol style="list-style-type: none"><li>1. Chulangani Weerasooriya, Veranja Karunaratne, Thahani Shifna and Sumedha Madawala, (2015) Bio-activities of invasive plant <i>Ageratina riparia</i>, <i>Proceedings of the Peradeniya University International Research Sessions, Sri Lanka</i>, Vol. 19, No. 361, 341.</li><li>2. Suci R. M.; Luvaga I. K.; Hazeen A.; Weerasooriya C. J.; Richardson S. K.; Howell A. R.*; Cravatt B. F.* Chemical proteomic analysis of palmostatin beta-lactone analogs that affect N-Ras palmitoylation. <i>Bioorganic &amp; Medicinal Chemistry</i>. <b>2021</b>, 53, 128414</li><li>3. Weerasooriya C. J.; Xu H.; Riel L.P.; Cavanaugh K.; Richardson S. K.; Howell A. R. Less is more: Streamlining Glycolipid Synthesis, in preparation</li></ol>
<b>Major Projects Undertaken</b>	<b>Undergraduate Research</b> , University of Peradeniya, Sri Lanka Advisor- Prof. Veranja Karunaratne <ul style="list-style-type: none"><li>• Investigation of the bioactivity and the chemistry of the <i>Ageratina riparia</i> which is an invasive plant to Sri Lanka. There has been one major study about the antifungal compounds in roots of this plant. In this research antioxidant, cytotoxic, phytotoxic, antifungal properties and the total phenolic content of the dichloromethane and methanol extracts of all parts of <i>Ageratina riparia</i> were investigated</li><li>• Chemical proteomic analysis of palmostatin beta-lactone analogs that affect N-Ras palmitoylation</li><li>• An alternative route to form a sphingosine acceptor via reductive elimination</li><li>• An alternative route to oxidize 2-methylene oxetane without using dimethyldioxirane (DMDO)</li><li>• Donor-acceptor behavior upon Lewis acid treatment to a 1,1-dimethyl-4-oxaspiro[2.3]hexane-1,1-dicarboxylate motifs</li></ul>