## Anti-Inflammatory Components from the Root of Solanum erianthum

Yu-Chang Chen<sup>1,\*</sup>, Guei-Jane Wang<sup>2,3,\*</sup>, Chi-Luan Wen<sup>4</sup>

<sup>1</sup>Department of Chinese Pharmaceutical Sciences and Chinese Medicine Resources, College of Pharmacy, China Medical University, Taichung <sup>2</sup>Graduate Institute of Clinical Medical Science, China Medical University, Taichung <sup>3</sup>Department of Health and Nutrition Biotechnology, Asia University, Taichung <sup>4</sup>Taiwan Seed Improvement and Propagation Station, Council of Agriculture, Taichung

Solanum erianthum D. Don (Solanaceae) is an evergreen shrub or small tree which is native of South America, widespread in tropical Asia and Oceania. It is a traditional folk medicine used for the treatment of metrorrhagia, edema, gout, carbuncles, eczema, toothache and dermatitis. During preliminary screening, the MeOH extract of the root of *S. erianthum* was shown to be able to inhibit nitric oxide (NO) release without affecting the cellular viability in lipopolysaccharide (LPS)-activated murine macrophage Raw 264.7 cells. Two new norsesquiterpenoids, solanerianones A and B (1–2), together with nine known compounds, including four sesquiterpenoids, (–)-solavetivone (3), (+)-anhydro- $\beta$ -rotunol (4), solafuranone (5), lycifuranone A (6); one alkaloid, *N-trans*-feruloyltyramine (7); one fatty acid, palmitic acid (8); one phenylalkanoid, acetovanillone (9), and two steroids,  $\beta$ -sitosterol (10) and stigmasterol (11) were isolated from the *n*-hexane-soluble part of the roots of *S. erianthum*. Their structures were elucidated on the basis of physical and spectroscopic data analyses. Of the compounds tested, 3 exhibited the strongest NO inhibition with the average maximum inhibition (E<sub>max</sub>) at 100  $\mu$ M and median inhibitory concentration (IC<sub>50</sub>) values of 98.23%  $\pm$  0.08% and 65.54  $\pm$  0.18  $\mu$ M, respectively.