

P-008: ANALYSIS OF POLYPHENOLIC ANTIOXIDANTS FROM THE FRUITS OF SYZYGIUM SAMARANGENSE

Mario J. Simirgiotis¹, Hui Yang¹, Margaret J. Basile², Roberto R. Gil³, and Edward J. Kennelly¹
¹*Lehman College and the Graduate Center, The City University of New York, Bronx, NY 10468;*
²*University of Miami School of Medicine, Miami, FL 33136;* ³*Carnegie Mellon University, Pittsburgh, PA, 15213*

Syzygium samarangense (Myrtaceae), known commonly as wax jambu, is an evergreen tree cultivated in many Asian countries and the southeastern U.S. for its popular edible fruit. Previous phytochemical studies of the leaves have shown the presence of flavonoids, proanthocyanidins, triterpenoids, and chalcones. We examined the antioxidant activity of methanolic extracts from the fruits and seeds of this species ($IC_{50} = 72.9 \mu\text{g/mL}$ and $11.5 \mu\text{g/mL}$, respectively) in the DPPH free radical scavenging assay. Each methanolic extract was partitioned with hexane, ethyl acetate, and butanol. The EtOAc partitions were each subjected to bioassay-guided fractionation with an initial separation by Sephadex LH-20 column chromatography. Extensive separation of active fractions over reversed-phase and Sephadex LH-20 columns led to the isolation of gallic and ellagic acids from the seeds, and gallic acid, ellagic acid, pinocembrin, and quercetin glycosides from the fruits. Compounds were identified using a combination of data from MS, NMR, and HPLC PDA comparison (retention time and UV spectra) with that of commercial standards.