3rd Symposium of Young Researchers on Pharmacognosy

Szeged, 3–4 February 2022

BOOK OF ABSTRACTS

University of Szeged
Institute of Pharmacognosy

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(ed. Tivadar Kiss, Judit Hohmann)

Department of Pharmacognosy, University of Szeged, Szeged, Hungary

3–4 February 2022

doi: 10.14232/syrpharmacognosy.2022.af

B3

doi: 10.14232/syrpharmacognosy.2022.b3

Neuroprotective potentiel of polymethoxylated flavones isolated from *Citrus reticulata*

Ayoub Najem

Email: ayoub.plante@gmail.com

Neurodegenerative disorders affect a large and increasing population, and there is a growing interest to find treatment opportunities in nature. *Citrus reticulata* contains a variety of compounds that display antioxidant, antibacterial, anticancer activities [1]. This plant is particularly rich in polymethoxylated flavones (PMFs) [2]. This class is known by its neuro-protective activity [3]. In the present investigation, we aim to study this group of compounds from this perspective, and to evaluate the effect of environmental conditions on the PMFs content and neuroprotective potential of *C. reticulata* samples collected from various regions of Morocco. Ultrasonic extraction was used to prepare a crude methanol extract. Then, liquid–liquid extraction was performed using an eluotropic series of solvents. Analytical HPLC with reverse phase system was used to evaluate all the fractions obtained, and the chloroform phase was selected to isolate major PMFs constituents. Analytical TLC was assessed to determine the solvent system appropriate for flash column chromatography. Ethyl acetate-dichloromethane (EtOAC-DCM) with gradient system of 0–50% DCM was found suitable to this purpose. Preparative HPLC was subsequently carried out to the subfractions to obtain 4 compounds that are likely PMFs based on their characteristic UV spectra. After structure elucidation by NMR, these compounds will serve as analytical standards to a quantitative evaluation of the available samples.

Supervisors: Bellaouchou Abdelkbir, Boudalia Maria, Hunyadi Attila

Acknowledgements:
This work was supported by the Stipendium Hungaricum Scholarship Programme.

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