

3rd Symposium of Young Researchers on Pharmacognosy



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BOOK OF ABSTRACTS



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Isolation and identification of diterpenes of the genus *Plectranthus sensu lato*

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The genus *Plectranthus sensu lato* (Lamiaceae), which according to the latest systematic revision includes three separate genera (*Coleus*, *Plectranthus sensu stricto* and *Equilabium*), is well-known due to its medicinal properties. Many species have been used in the treatment of various ailments of gastrointestinal, genitourinary, respiratory tract and skin for centuries [1,2].

Phytochemical studies have revealed that the genus *Plectranthus s.l.* is a rich source of phenolic compounds and terpenes. Within the group of terpenoids, diterpenes have become the most studied group because of their significant structural diversity and promising biological activities such as antimicrobial, antiprotozoal, cardiogenic, hypotensive, gastroprotective, and cytotoxic activity [2,3].

Our investigation of the methanolic extracts of the aerial parts of *P. ciliatus*, *C. forsteri* 'Marginatus', and *C. comosus* led to the isolation of six abietane diterpenes and two kaurane diterpenes. Two of them were isolated from a natural source for the first time. The compounds were obtained using different chromatographic methods such as column chromatography, flash chromatography, and RP-HPLC and their structures were elucidated by high-resolution mass spectrometry and 1D and 2D NMR spectroscopy.

Supervisors: Renata Kubínová, Attila Hunyadi, Máté Vágvölgyi

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