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Identification of biologically active compounds from *Symphytum* (*Boraginaceae)*

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Recently high-molecular fractions were isolated from species of *Boraginaceae* family *Symphytum asperum* and *S. caucasicum*. Based on the IR and NMR spectroscopy data, poly[3-(3,4 dihydroxyphenyl)glyceric acid] (PDPGA) was confirmed to be the major component of these fractions. This compound represents a new class of natural polyethers with a residue of 3-(3,4 dihydroxyphenyl)glyceric acid as the repeating unit. Polymer possesses immunomodulatory (anti-complementary), antioxidant, anti-inflammatory and wound-healing properties. Phytochemical investigation of roots and stems of *Symphytum asperum* L. was carried out in order to define starting substances for biosynthesis of PDPGA. The solid-liquid extraction technique was chosen as the first step for isolation the compounds probably containing the fragments of PDPGA, followed by the investigation using UHPLC-Q-TOF/MS technique. The UHPLC-Q- TOF/MS analysis of extracts of *S. asperum* roots/stems revealed the presence of low molecular weight compounds such as caffeic, rosmarinic, chlorogenic and salvianolic acids as well several oligomers. The obtained results show that the comfrey roots/stems can be used as a source for the isolation of low molecular weight biologically active compounds.

Biography

Lela Amiranashvili has completed her from Tbilisi State University. She is a Research Scientist at Tbilisi State Medical University, I. Kutateteladze Institute of Pharmacochemistry, Department of Plant Biopolymers. She has published more than 40 papers in reputed journals. Her field of professional interests is Bio-organic and Medicinal Chemistry.

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