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Book of Abstracts of the 1st International Symposium on Profiling

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Shot-Gun Presentations

S6. Bioactive molecules profile of two *Lactarius* species from Serbia

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Abstract

Mushrooms have become attractive as functional foods and as a source of many biologically active compounds. Different wild mushroom species were reported to have an excellent nutritional value and bioactivity that includes antioxidant and antitumor properties [1-3]. Hence, in recent times, the consumption of mushrooms has risen greatly, comprising a large number of species.

This work presents the profile of organic acids, tocopherols and phenolic compounds of two species of wild mushrooms from Serbia: *Lactarius piperatus* and *Lactarius rufus*. Organic acids were determined by UFLC-PDA; tocopherols were analysed by HPLC-fluorescence and the phenolic compounds characterization was made by HPLC-DAD/MS. It was possible to quantify oxalic, quinic, malic, citric and fumaric acids in both species, being malic acid the majority organic acid found in these samples. However, *L. rufus* revealed a higher content in total organic acids comparing with *L. piperatus* (12.43 g/100 g dw and 9.40 g/100 g dw, respectively). Concerning tocopherols, the four isoforms of vitamin E (α -, β -, γ - and δ -tocopherol) were detected in both species. Herein, *L. piperatus* was the species that holds the highest concentration of tocopherols (80.38 μ g/100 g dw), due to the contribution of β -tocopherol (47.43 μ g/100 g dw). About phenolic compounds, it was only possible to quantify *p*-hidroxibenzoic acid in *L. rufus*. Nevertheless, it was detected the related compound cinnamic acid in both species.

This work results from a Project in cooperation with the University of Belgrade, and the main purpose is the enhancement of the mycological flora as functional food and as a source of compounds of interest, allowing comparison between Portuguese and Serbian species.

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CERTIFICATE

Hereby it is declared that

Filipa S. Reis, Dejan Stojković, Marina Soković, Ana Ćirić, Jasmina Glamočlija, Lillian Barros, Isabel C.F.R. Ferreira

Presented a shot-gun talk entitled "**Bioactive molecules profile of two *Lactarius* species from Serbia**" in the **1st International Symposium on Profiling – ISPROF**, held in Caparica, Portugal, during days 2, 3 and 4 of September 2013



Prof. José Luis Capelo Martínez

Congress Chair