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& 9th Rare Disease SEE Meeting 2023

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**EDITORIAL OFFICE**
Macedonian Academy of Sciences and Arts, Bul. Krste Misirkov 2, POB 428
1000 Skopje, Republic of North Macedonia.
Phone: +389 2 3235 411, fax: +389 2 3115 434, E-mail: bjmg@manu.edu.mk
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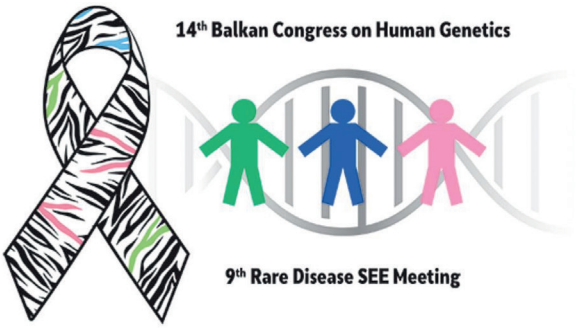


# ABSTRACT BOOK

## 14th Balkan Congress of Human Genetics and 9th Rare Disease SEE Meeting

*"Genetic Diseases from Diagnostics to Prevention and Therapy"*

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# EVALUATION OF THE ANTIOXIDANT POTENTIAL OF BIOCHAGA *IN VITRO*

Lada Živković[1], Dijana Topalović[1], Vladan Bajić[2], Biljana Spremo-Potparević[1]

[1] Department of Pathobiology, Faculty of Pharmacy, University of Belgrade, Serbia

[2] Vinča Institute of Nuclear Sciences, University of Belgrade, P.O. Box 522, Serbia

Presenting author e-mail: lada@pharmacy.bg.ac.rs
Contact e-mail of other authors: biljana.potparevic@pharmacy.bg.ac.rs

**Background:** Antioxidants and prooxidants have an impact on the intracellular oxidative equilibrium. Overproduction of prooxidants leads to oxidative stress caused by imbalances in oxidative reduction pathways. The body can be supplied with non-enzymatic, low molecular weight antioxidants through diet.The edible medicinal mushroom Chaga, Inonotus obliquus (Ach. ex Pers.) Pilat, has long been long used to treat or prevent various health conditions and disorders. The bioactive compounds of Chaga exhibit antitumor, anti-inflammatory, hypoglycemic, immunomodulatory, antioxidant, and antigenotoxic effects.

**Material and Methods:** DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging activity, FRAP (ferric reducing antioxidant power) total antioxidant activity, and hydroxyl radical scavenging capacity were measured.

**Results:** Commercial Biochaga (B), a water extract of Biochaga mushroom, was obtained from Sibpribor Ooo, Irkutsk, Russia. B (IC =5.9 mg/mL) showed moderate reducing power compared in comparison to vitamin C and strong compared to BTH. B (IC =1.78 mg/mL) showed remarkable free radical scavenging and moderate hydroxyl scavenging activity (IC =8.473 mg/mL).

**Conclusion:** We can place Biochaga in the radical scavenging category because it efficiently eliminates hydroxyl radicals against which the body has insufficient antioxidant defenses.

***Keywords:*** *Biochaga comet assay, Antioxidant DNA damage*

***Topic:*** *Other*