Dear Editor,

We would like to submit a paper entitling:

**Health impact of commercially cultivated mushroom *Agaricus bisporus* and wild-growing mushroom *Ganoderma resinaceum* - a comparative overview**

By authors:

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The aim of this work was to evaluate and compare a biological potential of commercially cultivated mushroom *Agaricus bisporus* and autochthonous wild-growing mushroom *Ganoderma resinaceum* originated from Northern Serbia, as alternative tools that can contribute to consumer’s well-being. The growing interest for healthy diet is influencing by consumers opting for products that can provide sufficient vitality and protection, be more cost-effective and produce less side effects.

Research showed prevention of lipid peroxidation (LPx), inhibition of angiotensin converting I enzyme (ACE) which can be beneficial in the maintain of a normal blood pressure level, and strengthening the ability of the central cholinergic neuron by inhibition of acetylcholinesterase (AChE) by the hot water extract of *G. resinaceum*. Selectivity in the antitumor action of *G. resinaceum* towards human cervical adenocarcinoma HeLa cells and human chronic myelogenous leukemia K562 cells was observed. Extract of commercially cultivated *A. bisporus* expressed milder effect in the inhibition of linoleic acid peroxidation, enzyme inhibition, as well as lower cytotoxicity against investigated tumor cell lines. On the contrary, significant proliferation of healthy human peripheral blood mononuclear cells (PBMC), immunocompetent cells involved in antitumor immune response, was confirmed. Results showed a clear difference in biological potential of investigated extracts, which provides guidance in their application in food and pharmaceutical industry.

The manuscript has not been published previously, it is not under consideration for publication elsewhere, its publication is approved by all authors by the responsible authorities where the work was carried out, and, if accepted, it will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

We hope the paper will meet your requirements and be accepted for publication.

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