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BOOK OF ABSTRACTS

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An overview of the effect of *Hypogimnia physodes*, *Hypogimnia tubulosa*, *Umbilicaria crustulosa* and *Umbilicaria cylindrica* acetone extracts on frequencies and distribution of micronucleus in human lymphocytes

Miroslava Stankovic[1], Igor Stojanovic[2], Ivana Zlatanovic[3], Vesna Milovanovic[4], Gordana Stojanovic[3]

1 Nuclear Facilities of Serbia, Vinca, Serbia
2 Zegin Pharmacy, Aleksinac, Serbia
3 Department of Chemistry, Faculty of Science and Mathematics, University of Nis, Nis, Serbia
4 Technical High School, Krusevac, Serbia

The *Hypogimnia physodes, Hypogimnia* tubulosa, *Umbilicaria crustulosa* and *Umbilicaria cylindrical* acetone extracts were tested for *in vitro* protective effect on chromosome aberrations in peripheral human lymphocytes using cytochalasin-B blocked MN assay at concentrations of 1.0 and 2.0 μg mL^{-1}. At the concentration of 1.0 μg/mL *H. physodes, H. tubulosa, U. crustulosa* and *U. cylindrica* extracts caused a decrease on the micronucleus frequency of 5.4 %, 4.2 %, 10.8% and 5.3%, respectively, comparing to the control cell cultures. Treatment of the cell cultures with acetone extract of *H. tubulosa, U. crustulosa* and *U. cylindrica* extracts at concentration of 2 μg/mL showed a decrease in the frequency of MN of 4.2 %, 16.8 % and 11.0% respectively while *H. physodes* extract at concentration of 2 μg/mL gave increases in MN frequency of 3.3 % (Stojanovic et al., 2013; Zlatanović et al. 2017; Stojanović et al., 2017).

Only *U. crustulosa* extract at concentration of 2 μg/mL showed higher reduction of MN than amifostine (radioprotectant, previously known as WR- 2721) at concentration of 1 μg mL^{-1} which gave a decrease in the MN frequency of 11.4% comparing to control cell cultures.

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