

## CELLFOOD® (Deutrosulfazyme): a powerful antioxidant

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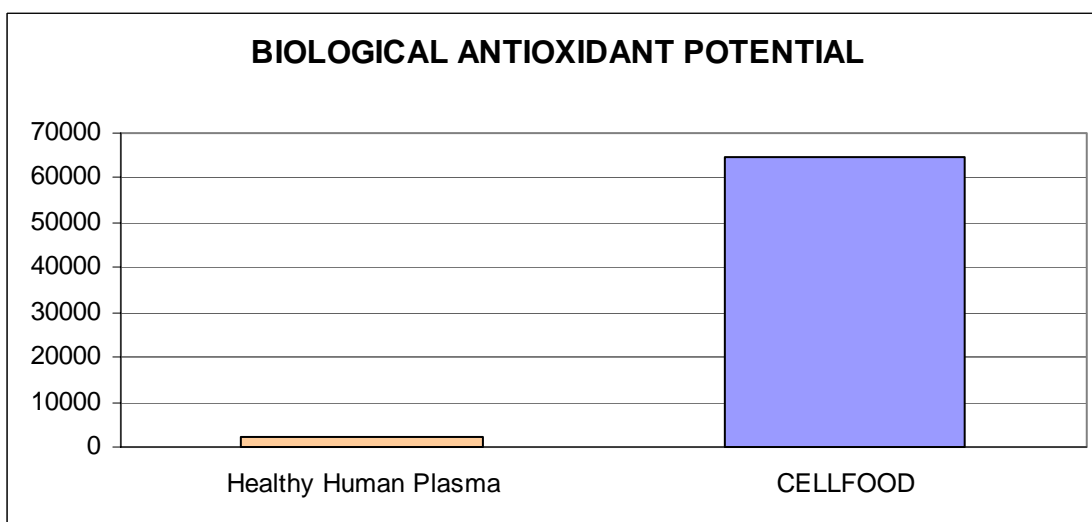
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**Background.** CELLFOOD (Deutrosulfazyme, NuScience Corporation, USA) is a non-addictive, non-invasive, and completely non-toxic proprietary colloidal-ionic formula containing finest all-natural, plant-based organic substances including ionic minerals, enzymes, amino acids and deuterium sulphate as traces (1). CELLFOOD was shown to be useful in the modulation of oxygen bioavailability in athletes (2, 3) and in the lowering of d-ROMs test values (Diacron International, Grosseto, Italy) (4) – in subjects at risk of oxidative stress, the main factor of premature biological ageing (5).

**Aim.** Because it has been previously established that high d-ROMs values (reactive oxygen metabolites) can be reduced either in both healthy (7) and health challenged individuals (8) by the administration of some liquid formulas containing low concentrations of antioxidants as well as CELLFOOD, we tested the hypothesis that the CELLFOOD formula was able to reduce the oxidative stress *in vivo* due to its intrinsic antioxidant properties *in vitro*.

**Materials and Methods.** The antioxidant activity of CELLFOOD was measured by the BAP (Biological Antioxidant Potential) test (Diacron International, Grosseto, Italy) performed with the dedicated instrumentation FRAS4 (Free Radical Analytical System 4, Health & Diagnostics Limited Co., Parma, Italy) (6). Data were expressed as means  $\pm$  SD  $\mu$ M of reduced iron from at least three independent experiments. The intra-assay coefficient of variation (CV) was also calculated in repeated determinations (n=8)

**Results.** The biological antioxidant potential of CELLFOOD measured  $64,747 \pm 3,660.5$  (CV, 5.7%).



**Discussion.** With its very high biological antioxidant potential (almost 30 times higher than the normal value of healthy human plasma) CELLFOOD is a powerful antioxidant (6). This may be ascribable to some of the specific active principles of CELLFOOD, including natural extracts and antioxidant enzymes. This property can reasonably explain the ability of the formula to reduce *in vivo* the d-ROMs test values (5).

**Conclusions.** CELLFOOD is a natural formula able to reduce oxidative stress and is potentially useful in the prevention of premature biological ageing. Subsequent studies are in progress to evaluate the changes in plasma biological antioxidant power after ingestion of CELLFOOD.

## References

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