



**Enzymatic and molecular antioxidant therapy: An open label study to assess impact on lipid hydroperoxide and glutathione levels. James Blum, Ph. D.<sup>1</sup>, Tom Bohager<sup>2</sup>.**

<sup>1</sup>Dietary Supplement Research Group, Saco, Maine and <sup>2</sup>Enzymedica Corporation, Port Charlotte, Florida

Contact information: **James Blum** – (207) 571-4380, [jblum@dsresearchgroup.com](mailto:jblum@dsresearchgroup.com),  
245 Bradley Street, Saco, Maine 04072  
**Tom Bohager** – (941) 258-0042  
752 Tamiami Trail, Port Charlotte, Florida 33953

Abstract

**Background:** Superoxide Dismutase and Catalase are enzymatic antioxidants. Glutathione is the major intracellular antioxidant and alpha lipoic acid is a metabolic antioxidant. They work together to neutralize oxygen-derived free radicals. Generation of excessive levels of free radicals is associated with the development of an array of chronic diseases. The present study evaluates the effectiveness of this formulation on levels of lipid hydroperoxides and glutathione in urine samples. **Method:** An open label pilot study comparing the effect of 3 weeks of daily product administration to baseline status. Five subjects were enrolled in this trial. **Results:** Compared with baseline levels, end treatment levels of 10-hour urinary determinations of lipid hydroperoxides fell 10.4% (28.8 – 25.8 micromol/g Creatinine) and glutathione levels rose 5.8% (1,039 – 1,103 micromol/g Creatinine). **Conclusion:** The formulation was associated with lowering of 10-hour urinary lipid hydroperoxides with a reciprocal elevation of 10-hour urinary glutathione levels.

Disclosures: Tom Bohager is the President of Enzymedica, the provider of the enzyme components. None of the other authors had any disclosures to declare.

This has not been presented anywhere previously.

National Products Association sponsoring member: Enzymedica