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## SUCROSOMIAL TECHNOLOGY FOR MICRONUTRIENTS SUPPLEMENTATION IN THE ELDERLY

Aging is accompanied by numerous physiological changes that can impact the absorption, metabolism and utilization of essential micronutrients, leading to an increased risk of deficiencies. In older adults, insufficient intake of key vitamins and minerals such as vitamin D, calcium, vitamin B12, iron and zinc is common due to dietary restrictions, chronic diseases and reduced efficiency in nutrient absorption. These deficiencies are associated with several negative health outcomes, including impaired immune function, cognitive decline and increased susceptibility to chronic conditions such as osteoporosis and cardiovascular diseases.

Micronutrients supplementation has emerged as a potential strategy to address these deficiencies and promote healthy aging. For example, vitamin D and calcium are crucial for maintaining bone density and preventing fractures, while vitamin B12 plays a pivotal role in neurological function and red blood cell formation. Iron deficiency is associated with significant clinical implications, including fatigue, decreased cognitive function, diminished physical performance, and increased morbidity and mortality. Sucrosomial technology represents a novel approach to addressing these challenges. This innovative delivery system protects micronutrients within a phospholipid matrix plus a sucrose matrix, which facilitates their absorption at intestinal level. Unlike conventional supplements, Sucrosomial formulations are well-tolerated, bypass common barriers to absorption, and minimize gastrointestinal discomfort.

Emerging clinical evidences support the effectiveness of Sucrosomial technology in improving iron absorption and optimizing the delivery of other essential micronutrients. In this lecture we will explore the potential of Sucrosomial supplementation in mitigating micronutrient deficiencies in the elderly, with a focus on its role in promoting health, preventing anemia, supporting immune function and improving overall quality of life in aging individuals.

**Keywords:** micronutrients, sucrosomial technology, iron, fatigue

### Biography

Graduated in Veterinary Medicine from the University of Pisa, Italy. After carrying out extensive studies in the field of human clinical nutrition, I have held the position of Scientific Director of the company Pharmanutra Spa (Pisa, Italy).

I continued to research on nutritional field while becoming Chief Scientific Officer of the Company. Inventor of more than 15 patents he carries out research and invention on new delivery systems and new nutritional ingredients with focus on improving human wellbeing.