

NUTRICEUTIC FRONTIERS: ATEROSCLEROSIS AND BRAIN AGING

Prof. Cesare Sirtori

Farmacologia Clinica
Centro per le Dislipidemie
SINUT
Ospedale Niguarda Ca' Granda

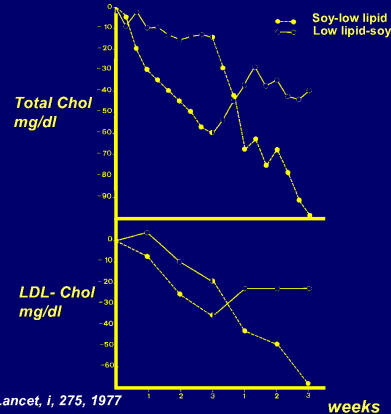
The daily intake of energy is mainly based on ordinary nutrients. To these, other types of dietary components may be added, ie, functional foods and dietary supplements. Functional foods are foods providing, in addition to calories and structural components, also nutrients beneficially affecting human health, such as vegetable proteins affecting cholesterolemia (Sirtori et al. Lancet i, 275, 1977). While functional foods are a limited number, supplements are many thousands. Contrary to the common belief that nutraceuticals are just dietary additives with no value for persons leading a healthy life, new evidence indicates that some can provide significant benefit in a variety of conditions. Recently the European Food Safety Agency approved the use of flavanol-rich chocolate (10 g of chocolate and 200 mg flavanols daily) for the management of hypertension and of coronary disease. In an area where top pharmaceutical research has failed, ie Alzheimer's disease, with the very damaging failure of the β -amyloid targeted approach, nutraceuticals may offer unexpected benefit; examples of this approach are tramiprosate, curcumin and caprilidene. All of these considerations lead to the understanding that, in the future, in the absence of significant advances in synthetic drug development, nutraceuticals may offer a new area of research with definite potential benefit for human health.

*A nutraceutical is any substance that is a **food** or a **part of a food** and provides medical or health benefits, including the prevention and treatment of disease. Such products may range from isolated nutrients, dietary supplements and specific diets to genetically engineered designer foods, herbal products, and processed foods.*

Dr. Stephen DeFelice, 1989



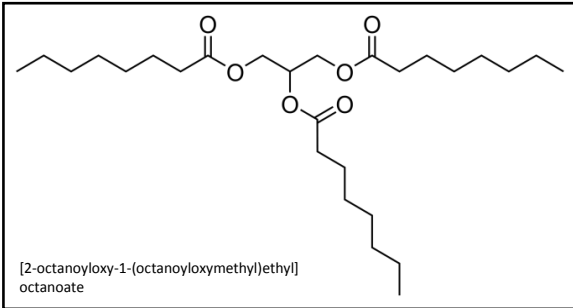
SOY PROTEIN-FIRST CLINICAL TRIAL ON HYPERCHOLESTEROLEMIC IN-PATIENTS



Sirtori et al, Lancet, i, 275, 1977

weeks

Axona (caprylidene) medical food approved in March 2009 by the U.S. FDA for the “clinical dietary management of the metabolic processes associated with mild to moderate Alzheimer’s disease”



Mean change in ADAS-Cog scores from baseline in populations stratified by E4 status

