

## GUEST SPEAKERS ADDRESS VIII

### Free Radicals, Antioxidants and Health Benefits

Prof. S. T. Senthilmohan  
Consultant Scientist, Australia & Visiting Professor  
BHC, India



The naturally occurring antioxidants in fruits and vegetables scavenge harmful free radicals, and thus have a protective effect against oxidation, and prevent food spoilage. When an overload of free radicals cannot gradually be destroyed, their accumulation in the body generates a phenomenon called oxidative stress. This process plays a major part in the development of chronic and degenerative illness such as cancer, autoimmune disorders, aging, cataract, and cardiovascular. The human body has several mechanisms to counteract oxidative stress by producing antioxidants, which are either naturally produced in situ, or externally supplied through foods and/or supplements.

Antioxidants in their reduced form are modified mainly by oxidation, and less by heating and hydrolysis during the processing. Natural antioxidants in their reduced forms have many well studied health-promoting characteristics. However much less is known about the effects of their oxidized forms and other metabolites, which may also have some health benefits. The oxidized forms of natural antioxidants affect cell signaling, the regulation of transcription factor activities and other determinants of gene expression.

\*\*\*\*\*