

# **Biological Immortality - practical approach to the advanced anti-aging medicine**

Torello Lotti<sup>1</sup> MD, PhD

<sup>1</sup>University of Rome G. Marconi, Department of Dermatology and Venereology,  
Rome, Italy

Ageing is a multifactorial physiological manifestation that occurs inexorably and gradually in all forms of life. This process is linked to the decay of homeostasis due to the progressive decrease in the reparative and regenerative capacity of tissues and organs, with reduced physiological reserve in response to stress. Ageing is closely related to oxidative damage and involves immunosenescence and tissue impairment or metabolic imbalances that trigger inflammation and inflammasome formation. One of the main ageing-related alterations is the dysregulation of the immune response, which results in chronic low-level, systemic inflammation, termed "inflammaging".

Genetic and epigenetic changes, as well as environmental factors, promote and/or modulate the mechanisms of ageing at the molecular, cellular, organ, and system levels. Most of these mechanisms are characterized by time-dependent patterns of variation driven by the biological clock