Mechanisms of immunosenescence.

Caruso C, Buffa S, Candore G, Colonna-Romano G, Dunn-Walters D, Kipling D, Pawelec G.

Immunosenescence Unit, Department of Pathobiology and Biomedical Methodologies, University of Palermo, Italy. marcoc@unipa.it

On April 7,8, 2009 a Symposium entitled "Pathophysiology of Successful and Unsuccessful Ageing" took place in Palermo, Italy. Here, the lectures of G. Pawelec, D. Dunn-Walters and G. Colonna-Romano on T and B immunosenescence are summarized. In the elderly, many alterations of both innate and acquired immunity have been described. Alterations to the immune system in the older person are generally viewed as a deterioration of immunity, leading to the use of the catch-all term immunosenescence. Indeed, many immunological parameters are often markedly different in elderly compared to young people, and some, mostly circumstantial, evidence suggests that retained function of both innate and acquired immunity in the elderly is correlated with health status. What is often not clear from studies is how far immune dysfunction is a cause or an effect. A better understanding of immunosenescence and mechanisms responsible for proven deleterious changes is needed to maintain a healthy state in later life and to design possible therapeutic interventions.

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