

Probiotics and age-related chronic diseases

Probiotici e malattie croniche

The aging process is dependent on anti-stress responses, which act as anti-aging mechanisms. The age-associated decline in the functionality of the immune system (immuno-senescence), contributes to a chronic state of basal inflammatory activity (known as inflammaging). Moreover, age-related degeneration has been often associated with imbalances of the microbiota and the gut-associated immune system. So, gut is considered a key target organ to improve the quality of life in senescence. Gut microbiota can have a powerful impact in the aging-linked deterioration to aging by its nutritional and immunomodulatory activity.

Reduced numbers of beneficial species and low microbial biodiversity in the elderly have been linked with pathogenesis of many diseases. Specific probiotics or multi strain formulations can contribute to reducing the chronic pro-inflammatory status and age-related diseases due to their immunomodulatory properties as well as their capacity to produce bioactive metabolites. Based on available literature data and results from clinical trials as well as our personal experience, the present review summarizes the beneficial effects of probiotic bacteria on some ageing-associated disorders.

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