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## Aging happens by default

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A ttempts to find the cause of aging focused in general on one specific aspect of the functioning of the organism. Theories considered the phenomenon either as the result of wear and tear, a depletion of a potential, a programmed type of event or of some kind of advantage for the survival of the population where natural selection would play the main role. A theory like the protein error hypothesis has a cultural origin, it is based on the belief common to different cultures that human are finite because of the accumulation of faults. Theories like the rate of living or the stress theory are based on the depletion of a reserve. The endocrine theory sees aging as a programmed event. The immune theory envisioned aging as a progressive functional decline of the immune system. The cross-linking or free radical theories focalize on a molecular event in a universe of metabolic reactions. Evolutionary theories explain aging as the action of genes modulated through natural selection. We believe that it is hopeless to look for a particular cause of aging there is simply no other alternative. One has to look for the phenomenon of aging in terms of the basic requirements needed for life to persist; the most fundamental requirement is energy expenditure, which inevitably follows the second law of thermodynamics. The data that support this view will be described.

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