

PA6 023 ON THE NATURE OF AGING

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Senescence is a complex process and the aging hypotheses concentrated only on one or very few elements of this process. Asking the wrong question, simplifying by model creation etc. all contributed to a poor solution as to why aging occurs. Most of the theories, however, approached and sometimes solved a small part of the problem of aging. Disregarding them would be the same mistake as considering them as a solution of the senescence-problem. It seems that aging occurs because the information level of the system is not good enough to ensure the existence of the human body indefinitely in time against the deteriorating entropy effects. The aging process is a gradual drifting away of the system from the developmentally differentiated state which is a result of the evolution. The information level of the system continuously changes in time; it is altered by external and internal factors, programmed events of the system, perturbations caused by the adaptation process as well as by the fluid character of the genome. Consequently, the maximum life span is determined by the information level of the system, it is influenced by the external and internal factors and it is limited by the weakest element of the chain. Modification of the aging process is possible by optimization of the system but the maximum life span of about 120 years could be lengthened only by changing the information level of the human body.