

노화개념 인식전환과 기능적 장수

Revolutionary Concept on Aging and Functional Longevity

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Sang Chul Park, M.D.

The Aging and Apoptosis Research Center

Seoul National University College of Medicine

E - mail : scpark@snu.ac.kr

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Abstract

The rapid increase of the elderly population has generated unprecedented social and cultural conflicts. One of the fundamental factors underlying these turbulences would be the traditional concept on aging and the elderly, which has been prevailed by the negative view as an irreversible and inevitable process. However, the recent researches have revealed that aging is a biological process not for death but for survival, suggesting a responsive and adaptive aspect of being aging. This revolutionary change in the concept on aging may provoke a confident aspect of aging, leading to a more productive and active participation of the elderly in the community. Therefore, the traditional view on aging, as a functionally deteriorated and morphologically altered state of the organism, should be corrected. Based on this new concept, the policy and strategy for the future society should be re-planned. Moreover, the elderly individuals should try to maintain the best condition toward the functional longevity without despair or discouragement. In this article, I briefly introduce the novel hypothesis on aging, that is, "The Gate Theory of Aging", and discuss the replace vs restore principles for aging control.

Keywords : **Functional longevity; Replace; Restore; Gate therapy; Aging**

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(老人文化)

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가 DNA

가? (7).

1. (Survial Strategy) 가
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(universality)

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(irreversibility)

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(inevitability)

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2. : ?

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(apoptosis re-

sistency)

(hypores

ponsiveness to mitogenic stimuli) 가

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(growth factors)

(human diploid

fibroblast, HDF)

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가

(非可逆性, irreversibility)

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가 . 가

가가

(functional longevity)

(caveolae) 가 .

가 (6), 3. : (Replace or Restore)?

(receptor - mediated endocytosis) 가

(amphyphisin) 가 .

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(5). (Replace Principle)

가 가 , ,

(3). , .

가 가 가 (irreversible inevitable universal phenotype)

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가 가 .

가 ,

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가 (7). .

(survival strategy) 가

(thrive) (Restore Principle) .

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4. 가, 가? .
 (janus) . 가 가
 ,
 가 (不可分) ,
 . 가
 , 가 ,
 . (mean life span)
 가
 (maximal life span)
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 (calorie restriction)
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 (gerontogene) 가 가
 (longevity - assurance gene) 가 .
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 5. - Gate Theory of Aging
 (catalase superoxide dismutase)
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 (Aspect theory)
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 (Baltimore longitudinal study on aging, BLSA) 가,
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 (Stress - induced premature senescence, SIPS) 가
 (receptor - mediated endocytosis)가
 가 .
 caveolae
 caveolin 가가 (6), clathrin
 amphiphysin 가
 (5). caveolin 가
 amphiphysin
 gene chip proteomics
 (functional restora-
 tion) 가 (3).
 가
 (gatekeeper molecules)
 caveolin, amphi-
 physin G
 가
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 가 ,
 (老化場, aging field)
 가 ,

가 . 가 가 , 가 . 가 (老化大門說, Gate theory of aging) (9). (Functional Longevity)

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(Culture), (Productivity)

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(Safety),

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