

筛选机制与细胞衰老的DNA损伤假说 Selective Mechanisms and the DNA Injury Hypothesis of Cell Senescence

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摘要 生物界存在一类筛选机制,它将DNA损伤较小的细胞筛选出来,产生后代.主要有两类模式机制1和机制2,分别以细菌和人的成纤维细胞为代表,那些具有筛选机制1的细胞(如:细菌、生殖细胞、癌细胞)能无限传代,而体细胞则不能.这两类筛选机制背后有更深刻的原因,而细胞的癌变正是从机制2退化为机制1的过程。

Abstract: Selective mechanisms exist in organism and biosphere, which select the cells with less DNA injury and reproduces them. There are two models; Mechanisms 1 and Mechanisms 2, represented respectively by bacteria and eukaryotes of human beings. Cells with Mechanisms 1 (e.g. bacteria, generative cells, cancer cells) can reproduce infinitely, while somatic cells can not. There are deep-going reasons behind the two categories of selective mechanisms. The canceration of the cells is a degenerating process from Mechanisms 2 to Mechanisms 1.

关键词 [筛选机制](#) [细胞衰老](#) [DNA损伤](#) [凋亡](#) **Key words** [selective mechanisms](#) [cell senescence](#) [DNA injury](#) [apoptosis](#)

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