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Article 7. Assimilation of The Cells' 'Memory' Between Different Phenotypes and Its Implication on Canceration/ 不同表现型细胞间在'思维'上的的同化机制及在癌变过程的指示意义

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Abstract

This article designs the experiment procedures to study the cells' intelligence and behaviour, subsequently provided the underlying theory.

Key words: Cell's Assimilation, Cell's Intelligence and Behavior, Phenotype, Cell Division, Canceration.

Methods:

Step 1. There are two kinds of cultivation conditions simulated in Lab for microbe reproduction of the same genetic strain: one is the 'comfortable' condition (Sample 1); the other is under UV-B radiation for cultivation (Sample 2). The microbe samples are collected after sufficient reproduction process (At least ten generations) under simulated cultivation conditions. After this, both sample 1 and sample 2 of the same genetic strain are transferred into moisture simulation process;

Step 2. Both sample 1 and sample 2 are cultivated separately and individually in each moisture conditions (T1, T2, ..., Tn);

Step 3. The samples of even mixture between sample 1 and sample 2 (50% microbe quantity for each sample) are cultivated individually in each moisture conditions (T1, T2, ..., Tn) as well; The cultivation condition keeps the same between step 2 and step 3; step 2 and step 3 is conducted independently;

Step 4. The reproduction rate (or cell division rate) is observed, and the comparison of cell division rates between step 2 and step 3 under the same cultivation condition is conducted: in step 2, the cell division rate of sample 1 and sample 2 is R1 (cell quantity/time) and R2, respectively; if assimilation of the cells' 'memory' does NOT

occur, then the cell division rate of mixture sample is 0.5*(R1+R2); however, if assimilation of the cells' 'memory' does occur, then the cell division rate of mixture sample is not equivalent to 0.5*(R1+R2); if the cell division rate of mixture sample is closer to R1, the sample 1 becomes dominant; if the cell division rate of mixture sample is closer to R2, the sample 2 becomes dominant.

Discussion:

Within the cells of the same genetic strain, cells apparently assimilate each other between different phenotypes. It is expected that sample 1 tends to be dominant during comfortable condition, whereas sample 2 tends to be dominant during adverse conditions. In this experimental simulation design, the adverse condition is under the drought stress or salinity stress. This theory is applicable on the cancerous tissue: when cancerous cell without immunology becomes dominant in cell assimilation process, the whole tissue (or organ) starts to be canceration, so the prevention of cancerous cell assimilation is the key in pathological study. Below the appendix of this article lists the experiment procedure for blood cell cultivation, further supporting the discussion of this article.

Appendix. The simulation methods for blood cell cultivation

Step 1. There are two kinds of cultivation conditions simulated in Lab for blood cell reproduction of a rat (or the same genetic strain): one is the 'comfortable' condition (Sample 1); the other is under UV-B radiation for cultivation (Sample 2). The cell samples are collected after sufficient reproduction process (for example, the immune cells of T lymphocytes and natural killer (NK) cells may be cultivated for approximately 10 generations or two weeks) under simulated cultivation conditions. After this, both blood sample 1 and sample 2 are transferred into simulation process of different concentrations of physiological saline:

Step 2. Simulation process of physiological saline: cells are cultivated individually in different concentrations of physiological saline in Lab, and different cell environment (salinity stress of cell environment or 'thirsty' simulation) are labeled as T1, T2, ..., Tn.

Step 3. The samples of even mixture between sample 1 and sample 2 (50% cell quantity for each sample) are cultivated individually in each different concentrations of physiological saline (T1, T2, ..., Tn) as well; The cultivation condition keeps the same between step 2 and step 3; step 2 and step 3 is conducted independently;

Step 4. The cell division rate in each blood cell type is observed, and the comparison of cell division rates between step 2 and step 3 under the same cultivation condition is conducted: in step 2, the cell division rate of sample 1 and sample 2 is R1 (cell quantity/time) and R2, respectively; if assimilation of the cells' 'memory' does NOT

occur, then the cell division rate of mixture sample is 0.5*(R1+R2); however, if assimilation of the cells' 'memory' does occur, then the cell division rate of mixture sample is not equivalent to 0.5*(R1+R2); if the cell division rate of mixture sample is closer to R1, the sample 1 becomes dominant; if the cell division rate of mixture sample is closer to R2, the sample 2 becomes dominant.

References:

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