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[\[Bio-informatics\] Genes May Be Changed through Acquisition: Suggested by NCU Research Team](#)[\[Bio-informatics\] Genes May Be Changed through Acquisition: Suggested by NCU Research Team \(Chinese Version\)](#)

Awakening News Networks (2009/12/15) Associate Professor Sun-Chong WANG at the Institute of Systems Biology and Bioinformatics, National Central University, and the team found that the environment factors such as diet, stress, lifestyle etc. may also influence genes, and such acquired genetic changes may even more be passed to the offsprings.

The twin genetic investigation conducted by Sun-Chong WANG's cross-country research team (consisting of researchers from Canada, Sweden, Australia, and the US etc.) observed 114 pairs of monozygotic (MZ) twins and 80 dizygotic (DZ) twins. For ethical reason, direct human body genetic experiments were not adopted as the investigation method; in stead, a large scale of observation was used to demonstrate the existence of the distributional variation of DNA methylation (the chemical modification of DNA). It was exhibited that, although the DNA sequences of a pair of MZ twins are identical, significant variations of performance are more and more observed along the temporal development, which indicates that the methylation patterns are changing through time, making the MZ twins with the identical DNA sequence grow into two more and more different persons.

Sun-Chong WANG pointed out, the significance of the findings lies at the identification of the acquired factors' impact on gene's methylation, which may even more be passed to the offsprings. He also said, methylation has to be kept in balance; human body becomes ill due to too much or too less methylation. For instances, B complex, folic acid and green vegetables are good for balanced methylation, while fat, alcohol etc. are not good for the balance. Also stress and lifestyle's influence on methylation is advised.

Related historical message:

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Further Information:

[NCU: Institute of Systems Biology and Bioinformatics](#)[Awakening News Networks 2009/12/15](#) (Chinese)

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