

techman / September 17, 2011 06:47PM

[\[Molecular Biology\] National Yang-Ming University Research Team Finds Essential Chromatin Marks of Cancer Metastasis](#)**[Molecular Biology] National Yang-Ming University Research Team Finds Essential Chromatin Marks of Cancer Metastasis** ([Chinese Version](#))

CNA, RTI, China Times E-paper, udn.com & Awakening News Networks (2011/09/16) A research team of National Yang-Ming University, Taipei Veterans General Hospital and National Taiwan University has made a significant breakthrough finding the essential chromatin marks of cancer metastasis. The relevant findings, which have been published in Molecular Cell, are helpful with the cancer treatment and new drugs development.

Distinguished Professor of the Institute of Biochemistry and Molecular Biology, National Yang-Ming University, Kou-Juey WU told the public that when the cancer cells grow too much in a patient, the cells of malnutrition would face oxygen deficit and try to spread to other organs, which is the mechanism of the metastasis of cancer cells.

The team found, the oxygen deficit circumstance would induce the expressions of chromatin modifier proteins HDAC3 and WDR5 which would change the chromatin marks and the genetic expression of cancer cells, inducing the mesenchymal transition of epithelial cells that leads to cancer metastasis. The team found with experiments that the inhibition of HDAC3 expression could reduce the number of the metastatic lesions to 30%. Kou-Juey WU said, treatment could be developed by finding ways to interfere the growth process of the cancer cells; now since we know that the disappearance of the marks of cancer cells indicates metastasis, we can try to find a way to stop the metastasis of cancer cells via blocking the chromatin modifier proteins HDAC3 and WDR5.

The discovery will not only benefit target treatment but also new drug development. A report introducing the findings will be published in the October issue of Nature Reviews Cancer as well, to draw more attention to the significant breakthrough.

Related Website:

[http://www.cell.com/molecular-cell/abstract/S1097-2765\(11\)00535-1](http://www.cell.com/molecular-cell/abstract/S1097-2765(11)00535-1)

Related Historical Message:

[\[Medicine\]\[Cancer\] Academia Sinica Research Team Found Gene Reducing Invasion of Cancer Cells 2009/05/29](#)

Further Information:

[CNA 2011/09/16](#) (Chinese)

[RTI 2011/09/16](#) (Chinese)

[China Times E-paper 2011/09/16](#) (Chinese)

[Udn.com 2011/09/16](#) (Chinese)

[Awakening News Networks 2011/09/16](#) (Chinese)

---

[National Science Council International Cooperation Sci-Tech Newsbrief](#)

---

Edited 2 time(s). Last edit at 09/17/2011 06:51PM by techman.

---