Certain human diseases may have evolutionary epigenetic origins

Ninety-six percent of a chimpanzee's genome is the same as a human's. It's the other 4 percent, and the vast differences, that pique the interest of Georgia Tech's Soojin Yi. For instance, why do humans have a high risk of cancer, even though chimps rarely develop the disease?

In research published in September's *American Journal of Human Genetics*, Yi looked at brain samples of each species. She found that differences in certain DNA modifications, called methylation, may contribute to phenotypic changes. The results also hint that DNA methylation plays an important role for some disease-related phenotypes in humans, including cancer and autism.

"Our study indicates that certain human diseases may have evolutionary epigenetic origins," says Yi, a faculty member in the School of Biology. "Such findings, in the long term, may help to develop better therapeutic targets or means for some human diseases. "

View the original article here: Certain human diseases may have evolutionary epigenetic origins