RÉGION ACADÉMIQUE PAYS DE LA LOIRE

MINISTÈRE DE L'ÉDUCATION NATIONALE, DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE

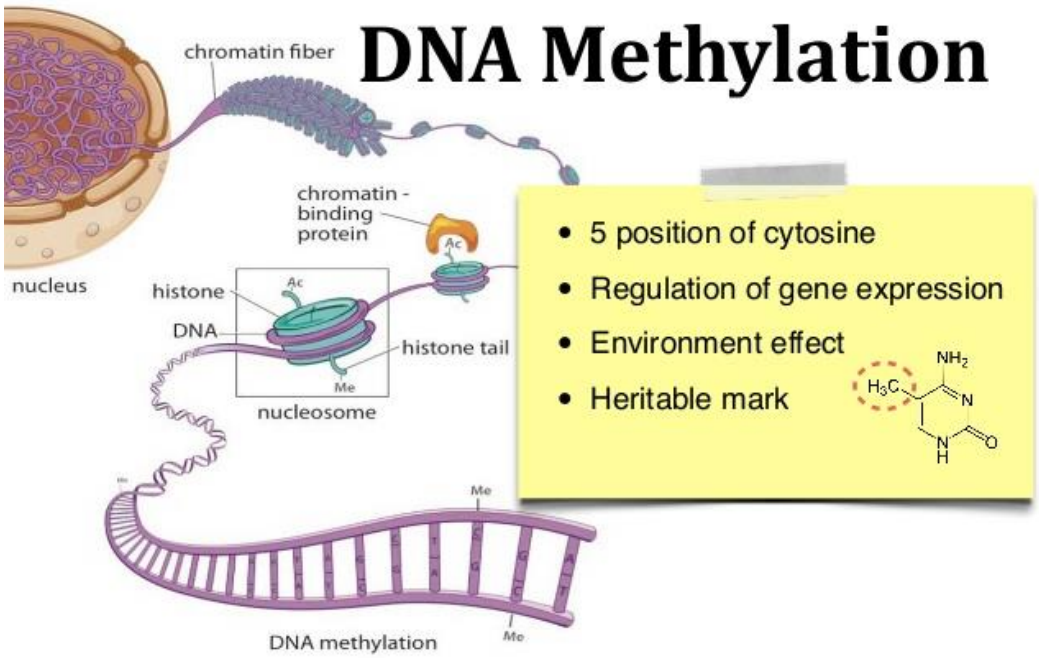
Académie de Nantes
Binôme : Anglais/SVT

Thème 1 - La Terre dans l'univers, la vie et l'évolution du vivant.

A3 : De la diversification des êtres vivants

Exploring the Epigenetics of Ethnicity

How do we characterize our ethnicity and what is the relationship between genes and ethnicity? What does this relationship tell us about our genetic ancestry?



Notice: "Me" = CH_3

Please, turn over →

DNA methyltransferase catalyzes transfer of methyl group. When conducting clinical trials,

and ethnicity. But while most of these traits are phenotypes that can be easily assessed or measured, race and ethnicity are social constructs that can be difficult to characterize. Researchers have questioned the usefulness of using race and ethnicity—rather than genetic ancestry—for medical applications.

To better understand how much of race/ethnicity is rooted in genetics, researchers from the University of California, San Francisco (UCSF), and their colleagues analyzed differences in methylation patterns within the genomes of Latino children. “Methylation, which is the predominant epigenomic marker within our genomes, is like a fingerprint on our DNA that can be modified by both genetic ancestry and by the environment,” Esteban Burchard, a physician-scientist at UCSF, told *The Scientist*.

Most researchers agree that individual epigenomes are partly inherited from our parents but can also change as a product of our environment.

Further, the field is only beginning to fully understanding which loci are linked to genetic ancestry. “We are still in the early days of understanding genotype-phenotype relationships of genomic ancestry,” said Eimear.

“Based on our study, the concept of race and ethnicity includes a lot of things including genetics, but also social, cultural and environmental factors,” he said. “I think our paper moves the ball down the field to understand race and ethnicity and their potential clinical implications.”

By Anna Azvolinsky - The Scientist - January 11, 2017