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# Epigenetique

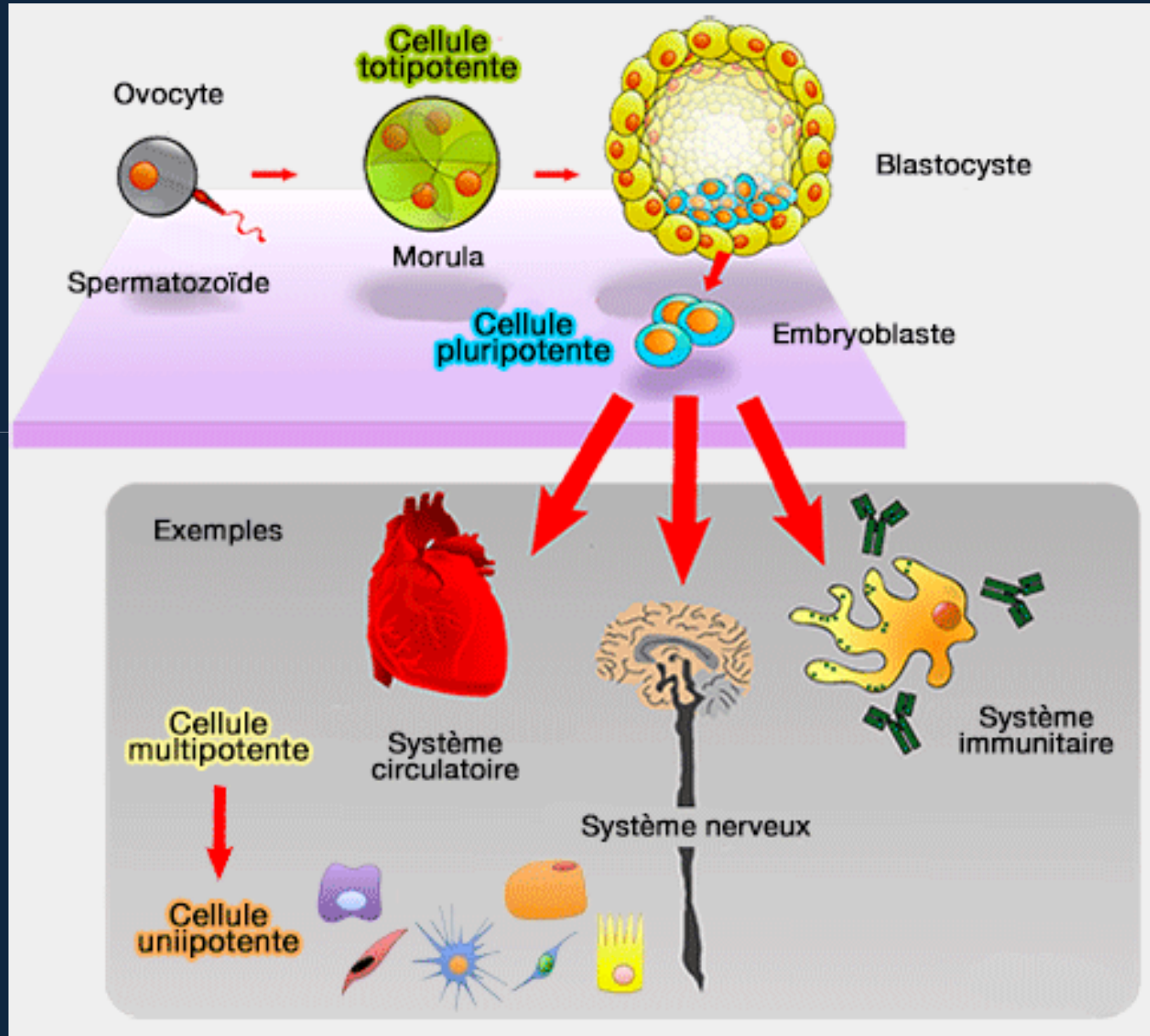
2. Comment l'environnement module  
l'expression de nos gènes



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# Différentiation Cellulaire

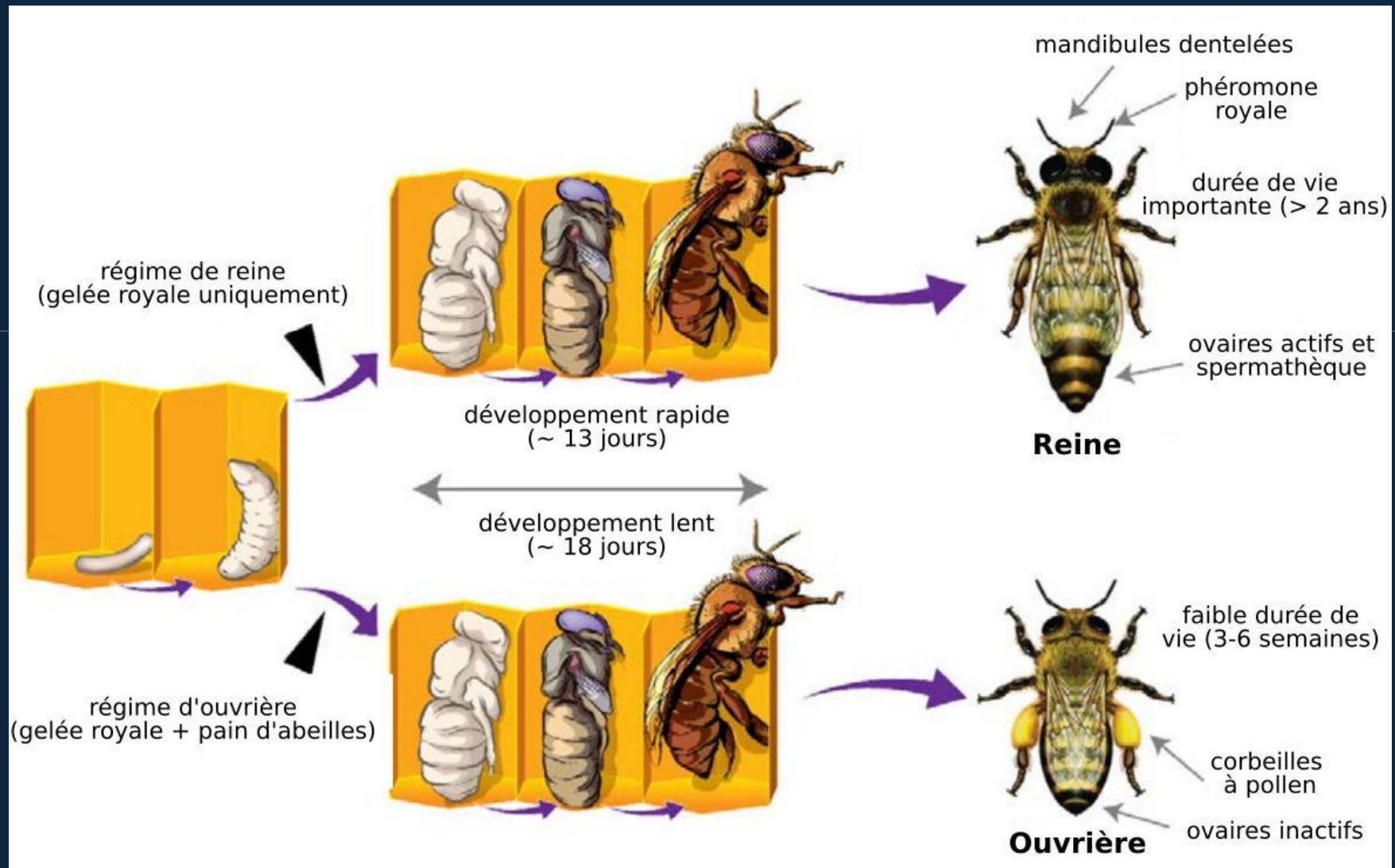




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# Différentiation Epigénétique des Abeilles



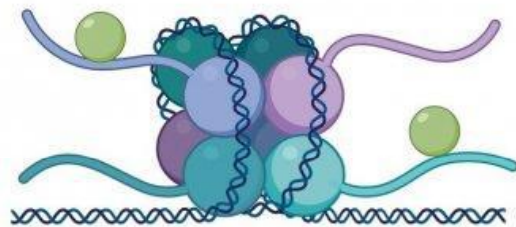


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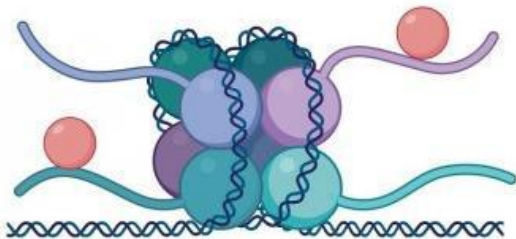
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# Principe de l'Epigénétique

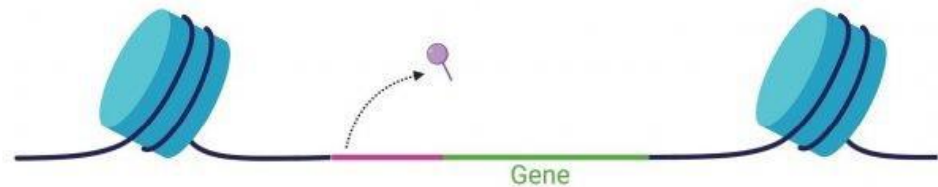
Cells can turn genes **on and off** by adding chemical groups to **histone proteins** or to **DNA**.



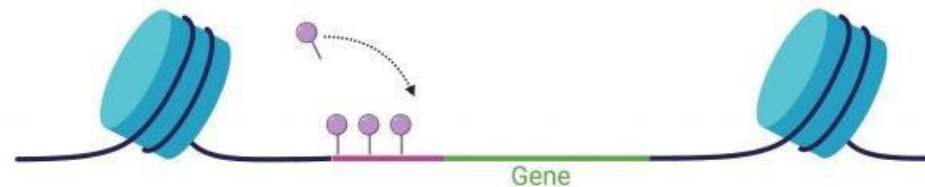
✓ Gene expression



✗ Gene expression



✓ Gene expression



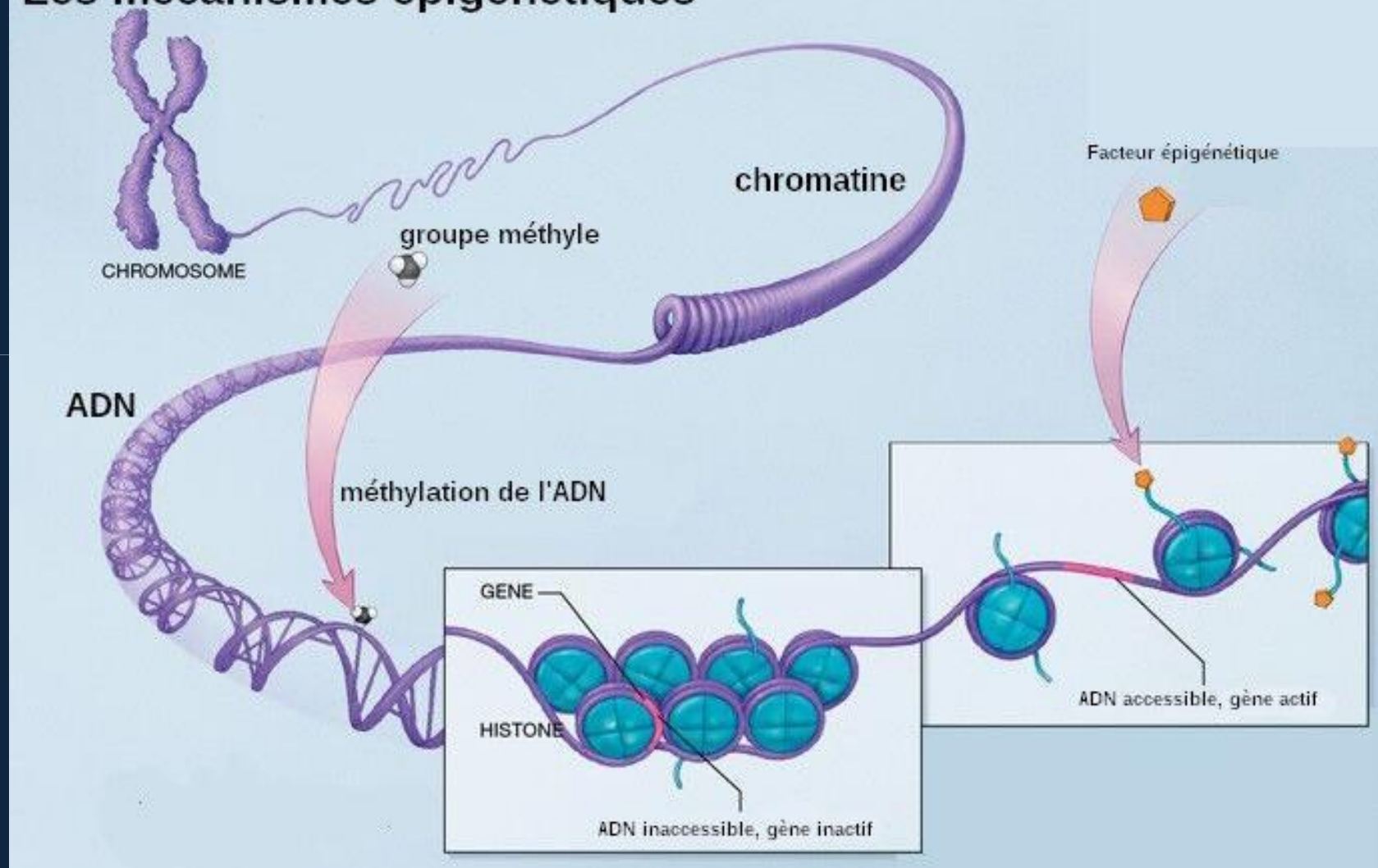
✗ Gene expression



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## Les mécanismes épigénétiques

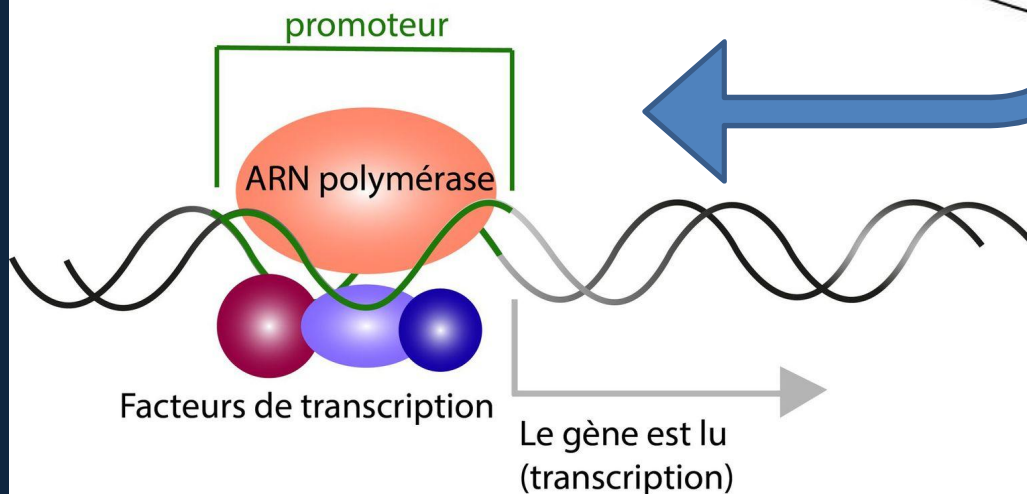
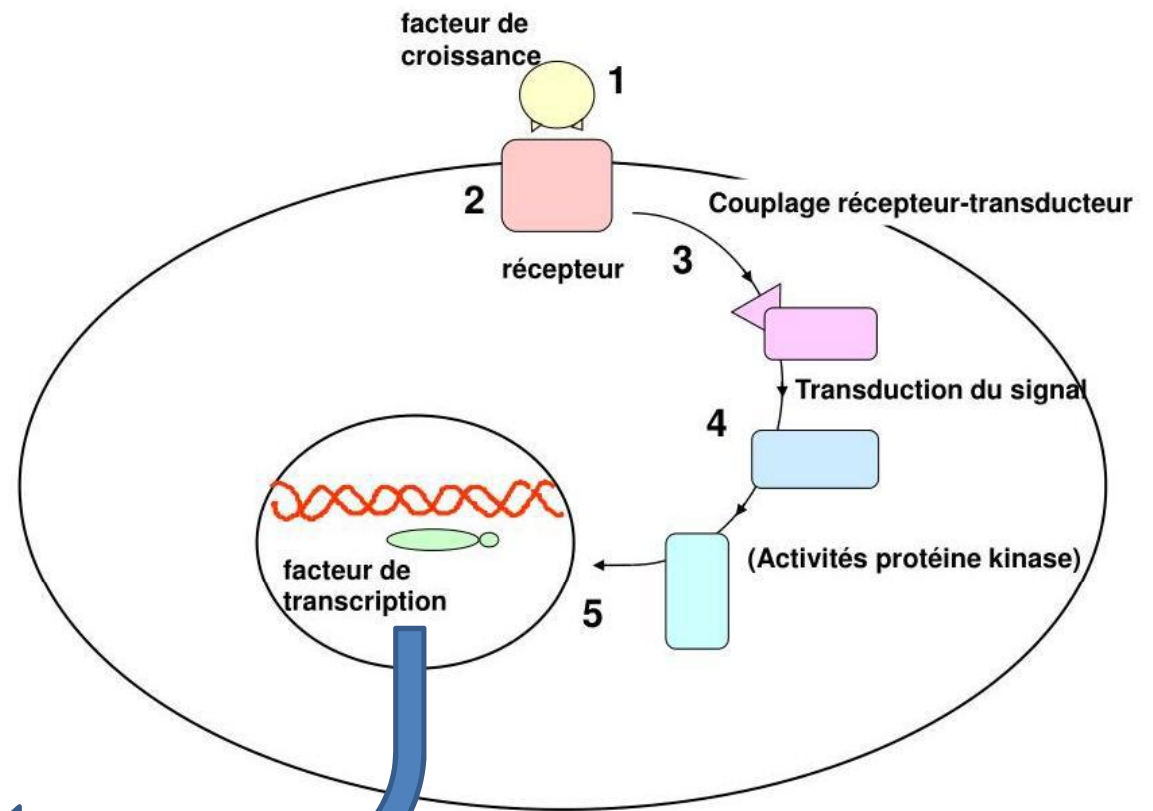




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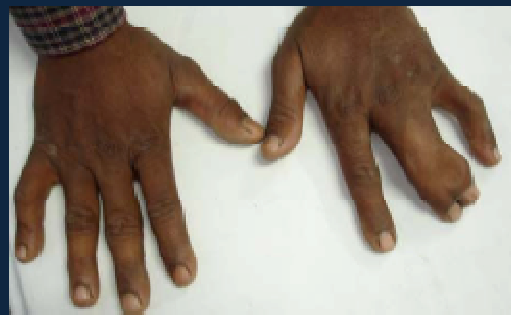
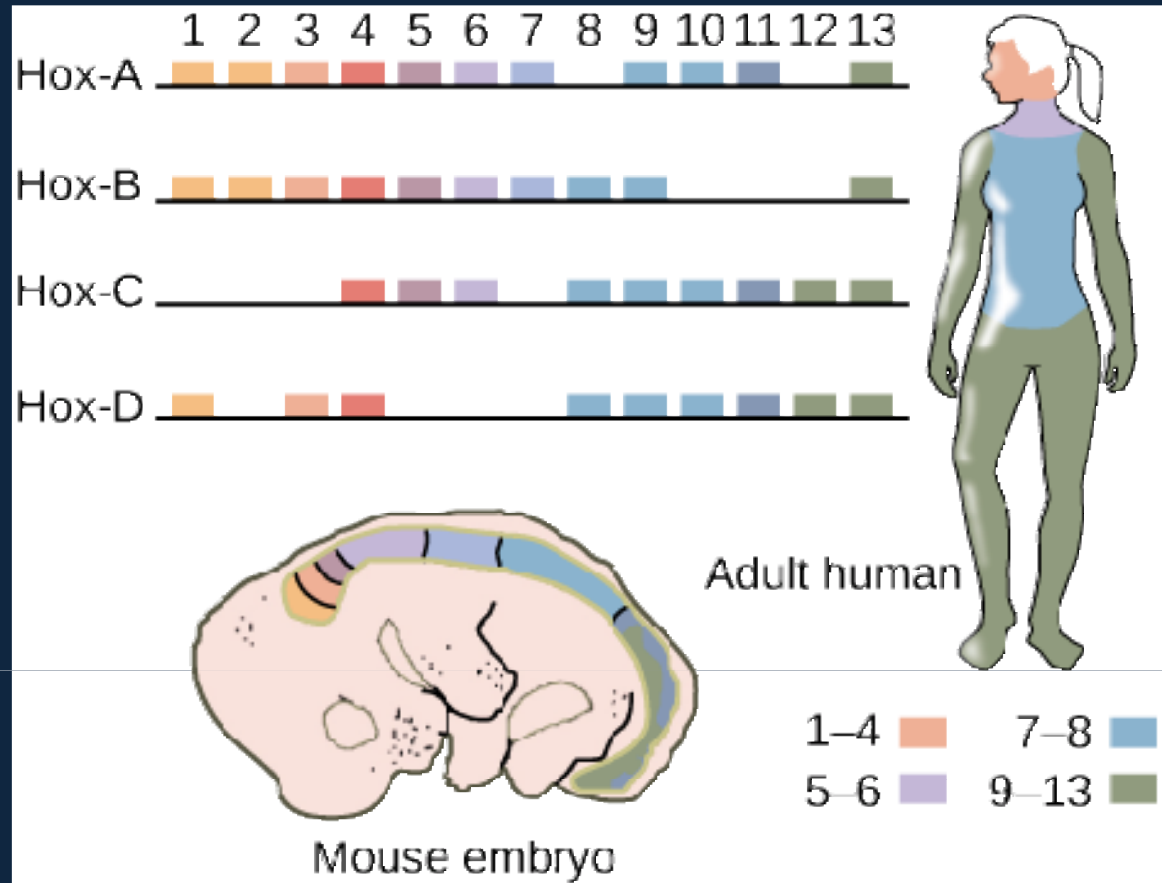
## Cascade Facteurs de Croissance/ Facteurs de Transcription





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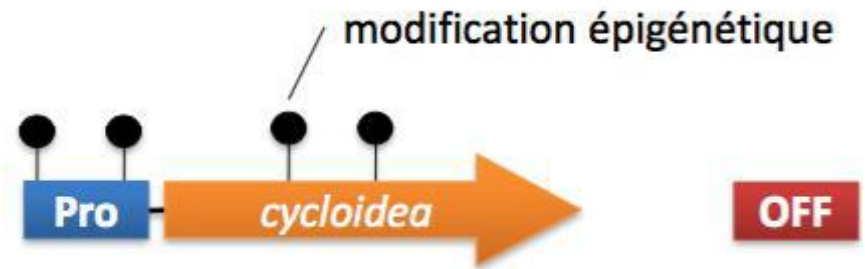


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gène contrôlant la symétrie de la fleur



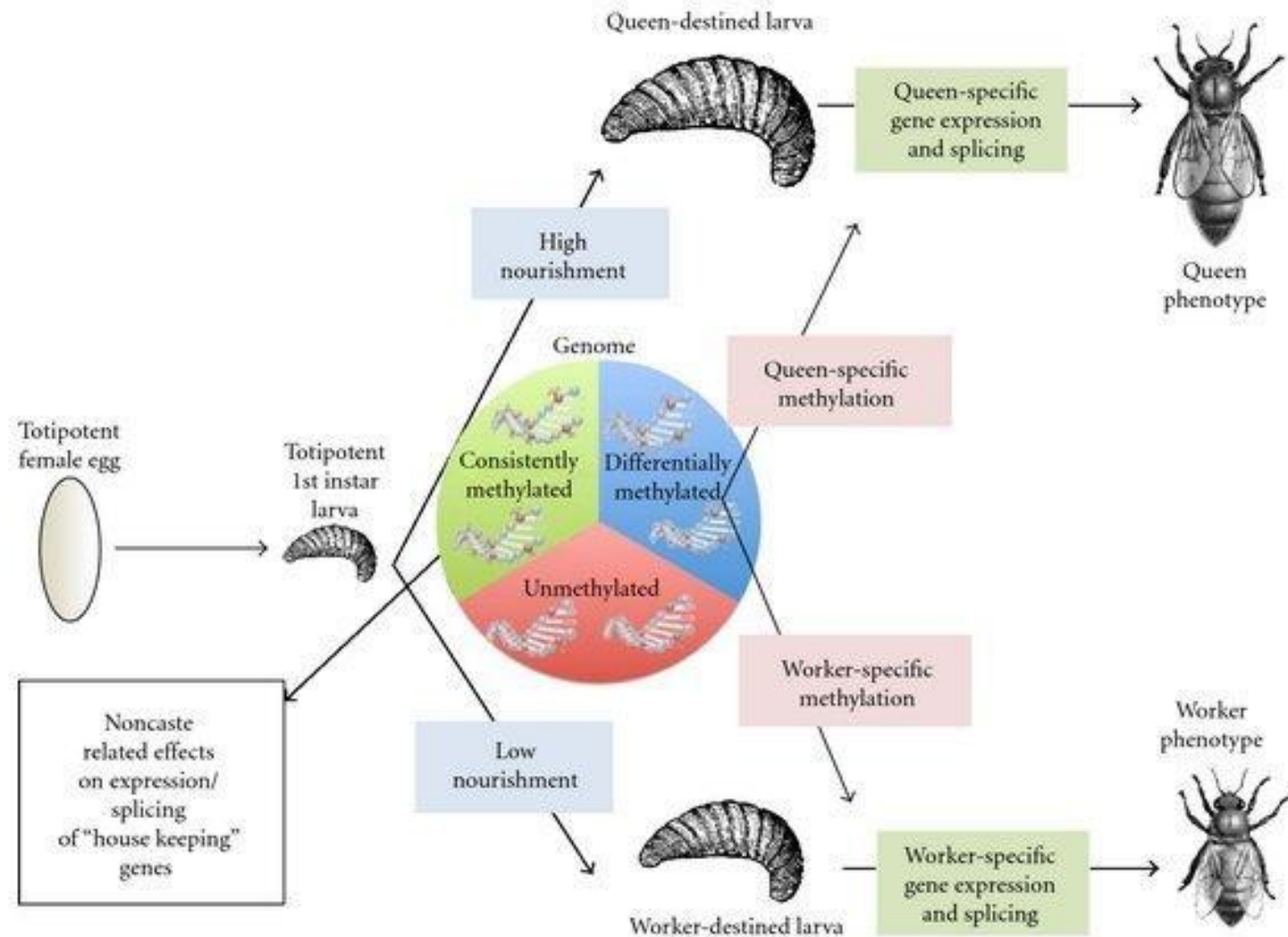
Différence Morphologique  
de la Linaire Commune



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# Mécanismes de la Différentiation Epigénétique des Abeilles

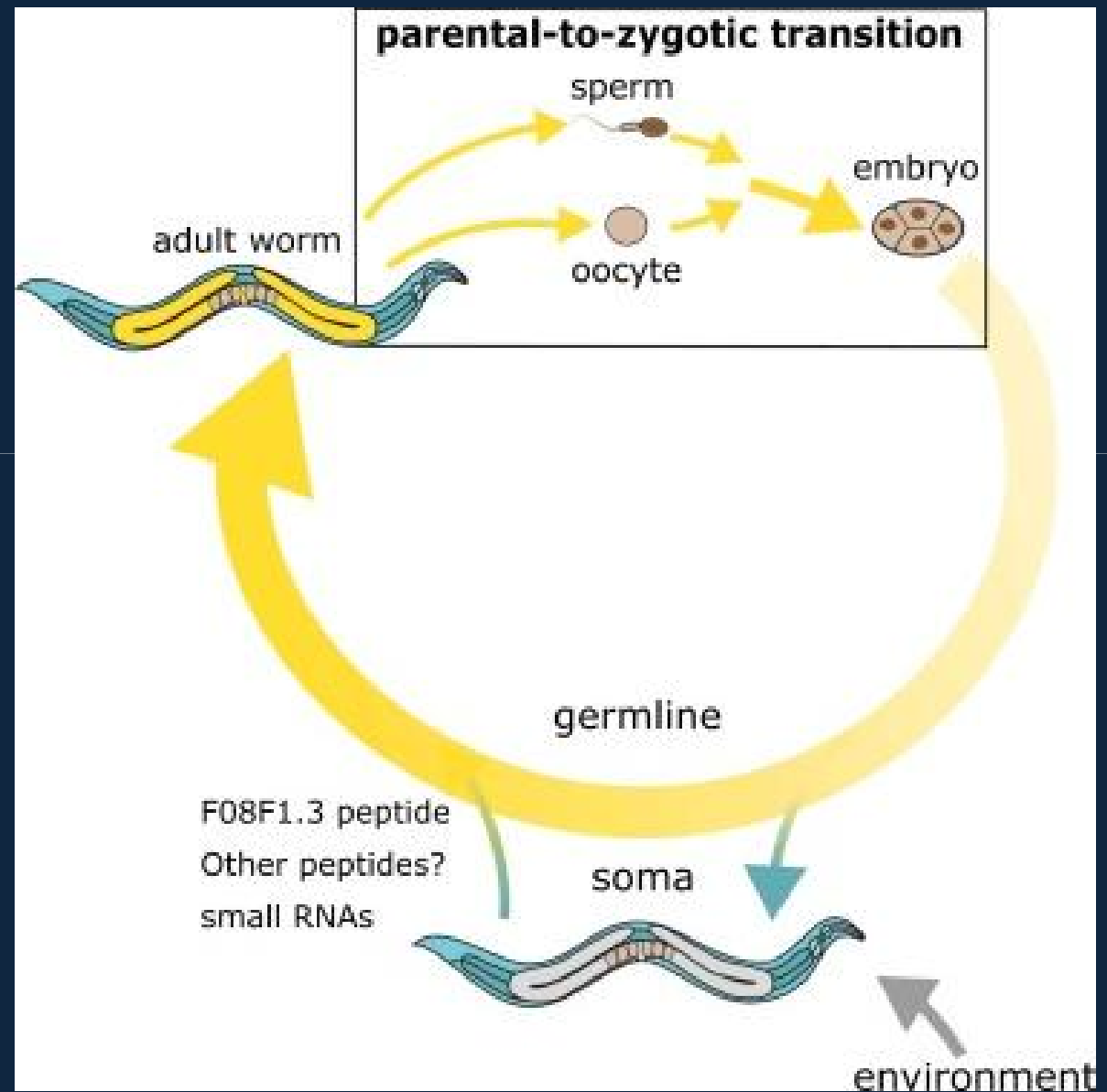




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# Modification Epigénétique de *Caenorhabditis elegans*



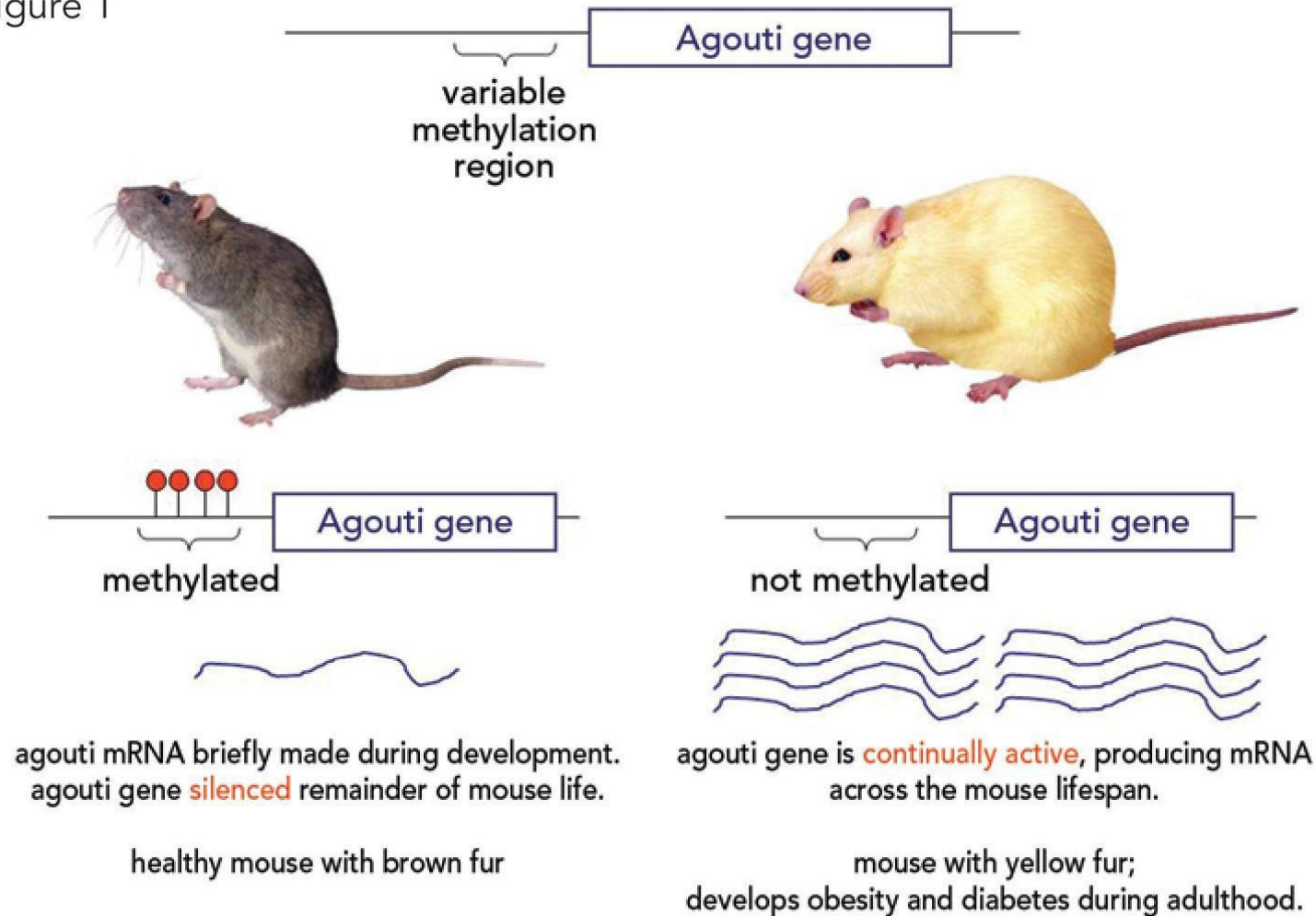


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# Détermination Epigénétique de la Couleur du Pelage des Souris

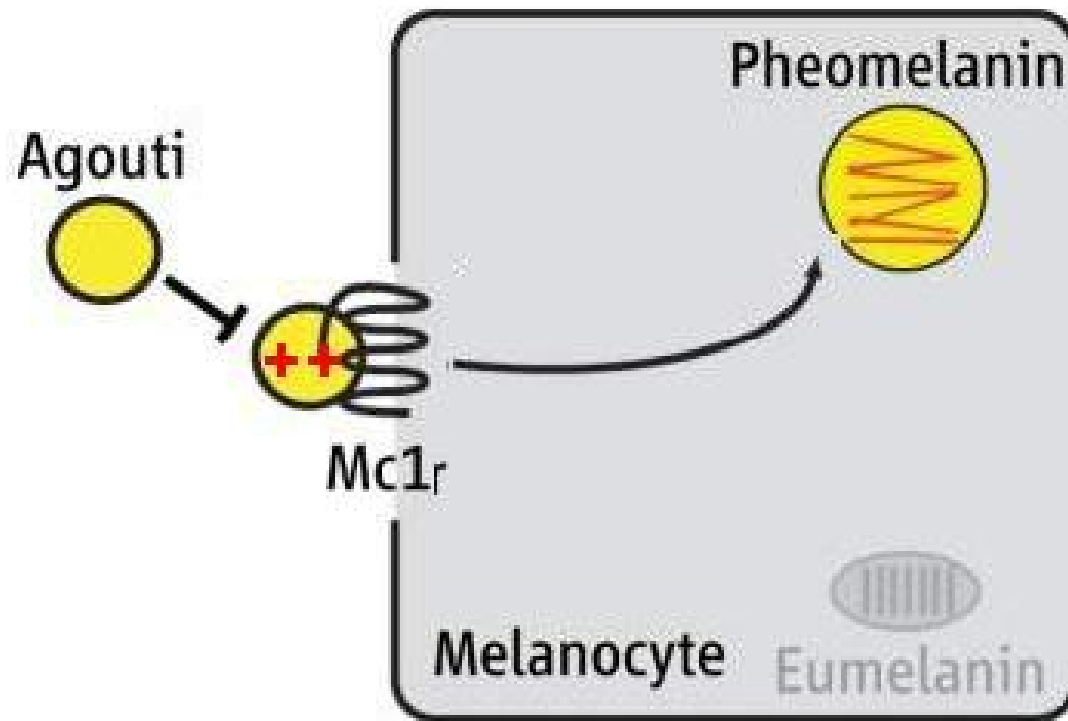
figure 1





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*La forte production de la protéine Agouti inhibe le récepteur MC1R, ce qui empêche la production d'eumélanine et explique la couleur jaune.*



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# Famine aux Pays-Bas en 1944

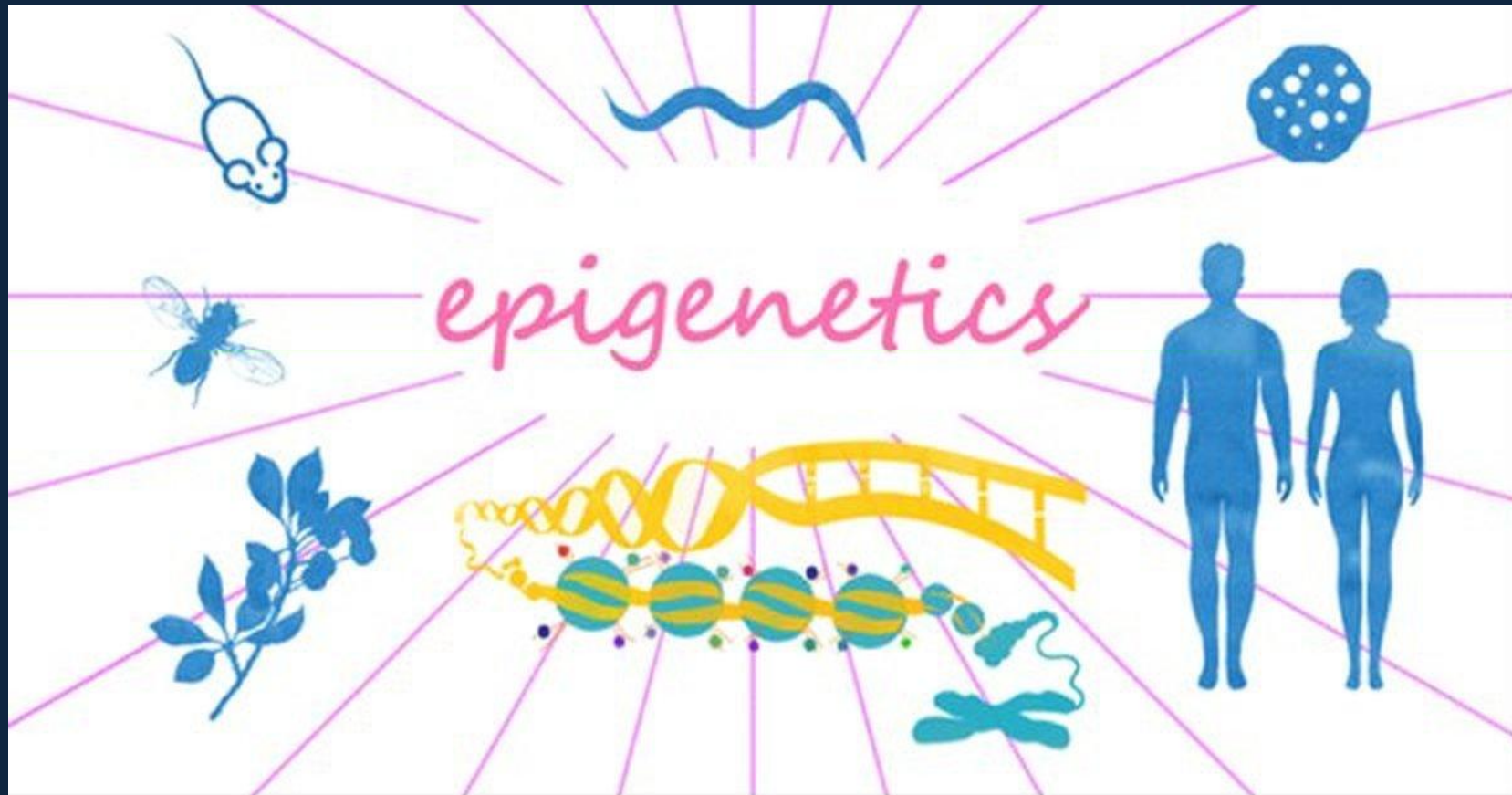


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## Epigenetics Proves Humans and Chimps Are Different

One of the rapidly expanding and exciting research fields in molecular biology is the area of epigenetics. In the study of epigenetic modifications, scientists analyze DNA that has been modified in such a way that its chemistry is changed, but not the actual base pairs that make up the genetic code of the sequence. It's like a separate control code and system imposed upon and within the standard code of DNA sequence.

Because epigenetic modifications in the genome are related to gene expression, researchers have been using highly advanced technologies for comparing these differences in humans and chimps for regions of the genome that they both have in common. [More...](#) [More...](#)





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