Fighting the Enemy Within

Basic Life Science and Issues : Presentation

Group 4

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Chapter Abstraction

Fighting the Enemy Within

11th chapter of *The Epigenetics Revolution*

”Epigenetic perspective of Cancer and its treatment”

Introduction: Cancer

Healthy cells, have two types of genes:

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Epigenetic Approach for Oncogenesis

- DNA Methylation

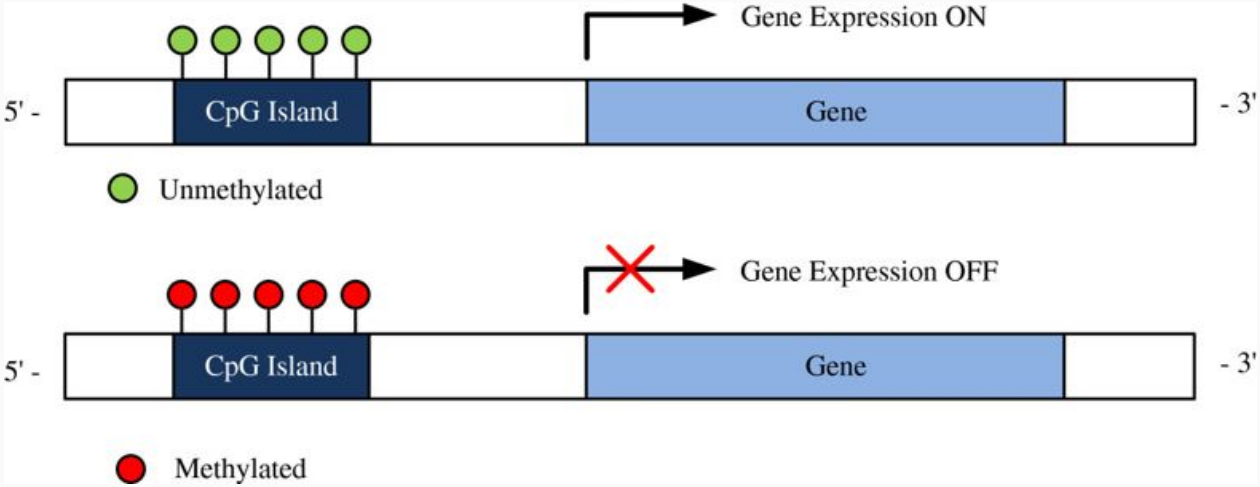
  Hypermethylation of CpG island

- Repressive Histone Modification

  Histone deacetylation

CpG Hypermethylation

CpG dinuclotide cluster (CpG island, CGI) are usually located in the promoter regions of genes in a DNA sequence.



Densed methylation for CpG island disables specific gene expression.

Histone deacetylation

Approach for Treatment

No easy wins

Alternative Approach

Conclusion

References

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[3] Kazantsev, Aleksey G; et al. (2008). *Therapeutic application of histone deacetylase inhibitors for central nervous system disorders*, Nature Reviews. Drug Discovery London Vol. 7 Iss. 10 854-68.

Q & A

Thank you!