Epigenetics

In brief

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Histones and chromatin



Open chromatin

Transcriptionally active

Closed chromatin

Transcriptionally inactive

Epigenetics

Epigenetics

"on top of" or
"in addition to"

Heritable

Stable

 No DNA sequence change

 Marks on top of the DNA AFFECT GENE EXPRESSION

Types of epigenetic marks Methylation of cytosines but only at CpG's





Expert Reviews in Molecular Medicine ©2002 Cambridge University Press Regulation of Transcription by DNA Methylation



Histones and their epigenetic modifications



ng/nucleosome.jpg



epigenetics

Chromatin organization
Gene expression
Imprinting

Cancers, disease

