

Epigenetic Gene Expression and Regulation

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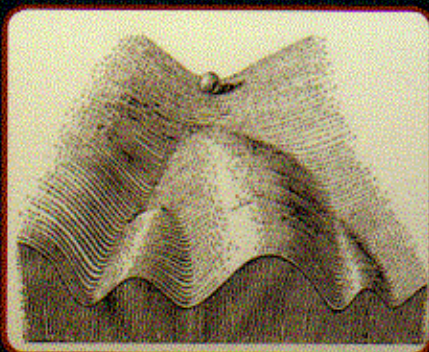
Key Features

- Helps readers understand how epigenetic marks are targeted, and to what extent transgenerational epigenetic changes are instilled and possibly passed onto offspring
- Each chapter is replete with clinical examples to empower the basic biology with translational significance
- Offers +100 illustrations to distill key concepts and decipher complex science

Epigenetic Gene Expression and Regulation reviews current knowledge on the heritable molecular mechanisms that regulate gene expression, contribute to disease susceptibility, and point to potential treatment in future therapies.

The book shows how these heritable mechanisms allow individual cells to establish stable and unique patterns of gene expression which can be passed through cell divisions without DNA mutations. It therefore establishes how different heritable patterns of gene regulation control cell differentiation and organogenesis result in a distinct human organism with a variety of differing cellular functions and tissues.

The work begins with basic biology, encompasses methods, cellular and tissue organization, topical issues in epigenetic evolution and environmental epigenesis, and lastly clinical disease discovery and treatment. Each highly-illustrated chapter is organized to briefly summarize current research, provide appropriate pedagogical guidance, pertinent methods, relevant model organisms, and clinical examples.



C.H. Waddington, *The Strategy of the Genes*,
George Allen and Unwin, 1957.



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