DOI: https://doi.org/10.54393/pjhs.v2i02.20

PAKISTAN JOURNAL OF HEALTH SCIENCES
https://thejas.com.pk/index.php/pjhs
Volume 2, Issue 2 (July-Dec 2021)

Editorial

Role of Epigenetic Alterations in the Development of Cancers

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Keywords: Epigenetics, Cancer, DNA proteins, Gene mutations

How to Cite:
Mehboob, R. (2021). Role of Epigenetic alterations in the development of cancers . *Pakistan Journal of Health Sciences*, *2*(02), 01. https://doi.org/10.54393/pjhs.v2i02.20

Article History
Received: 10th July 2021
Accepted: 8th August 2021
Published: 31st December 2021

Many different factors are involved in the progression of cancers. Genes mutations and chromosomal abnormalities are normally considered main cause of cancers but there are some other reason for the development of cancers. Other cancer causing factors are known as epigenetic alterations [1, 2]. Epigentic modification of genome is known as epigenetic alterations, lead toward cancer cells production. Epigentic modification does not cause change in sequences of nucleotide. Similar to genetic alteration epigenetic alteration can't be ignored [3]. Basically mechanisms behind epigenetic modifications are deregulation of DNA proteins, change in CpG island methylation, change in histone, oncogenes activation and deactivation of tumor suppressor [4].

Epigenetic alterations is directly linked with functional alterations of genome. Alteration in DNA methylation, histone degeneration and functional and structural abnormalities of chromosomes are the major examples of epigenetic modifications [5]. The main function of all epigenetic alterations is to modulate gene expression with same DNA sequences. Means these changes never effect main basal sequence oF DNA [6], which remain same in cell division [7].
Many different types of cancers contains large number of epigenetic alterations, the most important of these are epigenetic alterations that occurs in DNA repair genes. These DNA repair genes drive slow expression of DNA proteins. These abnormalities cause genetic unreliability, which is mainly considered as characteristic of various cancers [8].

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