



HEB

## Journal of Hospital Pharmacy

An Official Publication of Bureau for Health & Education Status Upliftment  
(Constitutionally Entitled As Health-Education, Bureau)

JOHP

### The Role of Interferon in Modern Medicine: Clinical Applications and Therapeutic Potential

*Sohan Patel<sup>1\*</sup>, Yash shah<sup>2</sup>, Mukesh Patel<sup>1</sup>, Sapna Desai<sup>1</sup>, Satyajit Sahoo<sup>1</sup>,  
Komal rehvar<sup>1</sup>, Tejash Patel<sup>1</sup>, D B Mesharm<sup>1</sup>*

<sup>1</sup>Pioneer Pharmacy College, Vadodara, Gujarat-390019.

Smt. S. M. Shah Pharmacy College, Aamasaran, Gujarat-387130

#### Corresponding author\*:

Dr. Sohan A. Patel (M. Pharma., Ph.D), Professor, Department of Pharmacology,  
Pioneer Pharmacy College, Vadodara, Gujarat

**Email Id:** [serviceheb@gmail.com](mailto:serviceheb@gmail.com)

#### Abstract:

Interferon (IFN) is an antiviral substance that was discovered in 1957. Interferons are multifunctional cytokines widely used in clinical settings as an anti-viral drug. Interferon (IFN)- $\alpha$  and - $\beta$  are produced by virus-infected cells; IFN- $\gamma$  is produced as a primary response of T lymphocytes to mitogenic stimulation. Any type of IFN is a (glyco) protein with a molecular weight of about 20,000 kDa. IFNs act by binding to cell surface receptors and triggering activation of IFN-responsive genes, probably via specific base sequences located in the 5' non-coding region of such genes, resulting in changes in cell function. The advance in the basic research of IFN has revealed the action mechanism of its antiviral effect at a molecular level and provided wide clinical applications. IFN is known to have various biological activities including antiviral effects, anti-tumor effect, Hepatitis, Multiple sclerosis and Granulomatous diseases etc. IFN is considered to exert its action by not only directly inhibiting viral proliferation, but also stimulating cytotoxic T cells, natural killer cells, and macrophages.

**Key words:** Interferon, Types of IFN, Clinical Application

#### Access this Article Online

Website: <http://www.journalofhospitalpharmacy.in> Quick Response Code:

Received on 12/09/2024

Accepted on 21/09/2024 © HEB All rights reserved

