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## **Immunotherapy: A New Principle of Cancer Therapy**

Hurmandeep Kaur \*, Rupinder Kaur Sodhi, Arockia Babu

Chandigarh College of Pharmacy, Landran, Mohali (Punjab), India

Address for Correspondence: Hurmandeep Kaur; <u>Hurman.garcha16@gmail.com</u>

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ABSTRACT: Immunotherapy, also called biologic therapy, is a type of cancer treatment that boosts the body's natural defence systems to fight cancer. It uses substances made by the body or in laboratory to improve or restore immune system function. Earlier cancer treatment consisted of surgery, radiation, chemotherapy and horrmonal treatments. In recent years, immunotherapy has become an important therapeutic alternative, and is now the first choice in many cases. One of the greatest achievements with monoclonal antibodies is their use in human therapy. Surgery, chemotherapy and radiotherapy are not specifically directed to tumor cells and may also affect healthy tissue. Antibodies can provide specificity and lower toxicity, opening new therapeutic possibilities. The objective is for the antibody to act as a transporter for the cancer-killing agent, concentrating the agent directly in the cancer cell, with minimal damage to healthy cells. Although conjugated antibodies showed toxicity in the past, more recent approaches under development appear to decrease unwanted side effects. Drugs known as immune checkpoint inhibitors can physically block the checkpoint CTLA-4, a protein receptor which frees the immune system to attack the cancerous cells. A single T-cell can kill thousands of cancer cells. © 2019 iGlobal Research and Publishing Foundation. All rights reserved.

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