



Chapter 9 - Microbes and their products as novel therapeutics in medical applications

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Abstract

Bacteria, virus and fungi are part of the living world and are not always considered as harmful as they can be beneficial by actively involving in several biological processes. Based on this perception microbes are recently been exploited to treat various diseases and enhance health. In the new era of therapeutics, microorganisms are widely used for vaccine and antibiotics production. Microbes also increase the therapeutic acceptability of drugs like insulin which were once produced from pig. Some strains of bacteria or oncolytic viruses are targeted to kill or replicate in cancer cells for cancer therapy. The special characteristics of microbial metabolites are their exclusive chemical structures and their environmental interaction which make them widely used in production of medicine and in drug design studies. With above considerations, this chapter reviews the clinical applications including vaccines, virotherapy, antibiotics produced by microbes, bacterial therapeutic products, therapeutic role of microbial enzymes and medical applications of fungi.

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