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Assignment : Explain in details aspect of medical biotechnology

Medical biotechnology

Medical Biotechnology helps in preventing human diseases. The use of living cells Medical Biotechnology. The living cells and cell materials serve the purpose for research and also helps produce pharma products and diagnostic products which eradicate human diseases. The medical research studies are conducted by the medical biotechnologists and these biotechnologists work for academic and industrial needs. The biotechnologists conduct various experiments which part of the research which helps to identify, treat numerous diseases and how to prevent diseases. The biotechnologists have been very successful in bringing various techniques in the field of medical Biotechnology. The contributions towards developing drugs and vaccines have been majorly contributed by the industrial biotechnologists. Techniques like environmental clean-up, market microbial pesticides and insect- resistant crops are all introduced by the Biotechnologists in the field of Biotechnology. In Simple words, Medical Biotechnology is the study of micro-organisms like bacteria, plants and animals. It also helps in studying enzymes which is imminent in industrial and manufacturing sectors and processes which help in producing foodstuffs, important drugs used for making medicines and synthetic hormones.

The research studies related to deoxyribonucleic acid (DNA) is the pioneer illustration of the inventions in the field of medical biotechnology also including the invention of insulin and growth hormone. The study of Genetic engineering involves in identifying the human genes and this study is done by many biotechnologists in the field of Biotechnology. Diseases like Parkinson's and Alzheimer's syndrome can be possibly are cured with the help genetic engineering.

Industrial biotechnologists typically work for private businesses that are conducting research , which is directed toward solving a particular medical issue.

Their findings often lead to new pharmaceutical drugs and medical treatments. Work in the industrial field tends to be geared more toward the financial goals of the business that employs these scientists. Industrial biotechnologists may be required to explain or defend their work to non-scientists who have decision-making powers in the business.

The medical biotechnology field fall in several categories. These include research and development, quality control , clinical research, manufacturing, regulatory affairs, information systems, and administration. Professionals entering the field may begin as research assistants, quality control analysts, clinical coordinators, or biostatisticians.

Application of medical biotechnology

Gene therapy

Gene therapy is one more technique of biotechnologies which is used to delicacy and diagnoses diseases like cancer and Parkinson's disease. The apparatus of this technique is that the fit genes are under attack in the body which either obliterate the injured cells or replace them. In some cases, the fit genes make corrections in the genetic information and that is how the genes start performance in the favor of the body.

Pharmacogenomics

Pharmacogenomics is an additional genetically modified method which is used to learn the genetic information of a personality. It analyzes the body's reply to sure drugs. It is the mixture of pharmaceuticals and genomics. The aspire of this field is to expand such drugs which are inserted in the person according to the genetic information there in the individual.

Genetic testing

Genetic testing is a technique of heredity which is used to conclude the genetic diseases in parents, sex and carrier screening. The technique of genetic testing is to use DNA probes which have the sequence alike to the mutated sequences. This technique is also used to recognize the criminals and to test the parenthood of the child.

Biopharmaceutical

By means of the technique of biotechnology, the drugs biopharmaceuticals were urbanized. There are no chemicals concerned in the combination of these drugs, but

microorganisms have completed it likely to expand them. Large molecules of proteins are typically the source of biopharmaceuticals. They when under attack in the body attack the hidden mechanisms of the disease and wipe out them. Now scientists are trying to expand such biopharmaceutical drugs which can be treated against the diseases like hepatitis, cancer and heart diseases.