

THE HISTORY OF BIOTECHNOLOGY IN MEDICINE AND IT'S FUTURE PERSPECTIVES

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Bioprocess technology encompasses all of the basic and applied sciences in microbiology, biochemistry and molecular biology as well as the engineering aspects to fully exploit living systems and bring their products to the market place. Today bioprocesses have become widely used in several fields of commercial biotechnology in medicines, veterinary medicines, food ingredients, agriculture, environmental science and biological chemicals. While our understanding of biotechnological process has rapidly and remarkably advanced in recent years, it has been in existence since prehistoric times, making it one of the oldest technology even before the discovery of microbiology. The term of bioconversion that is also known by the name biotransformation refers to the use of living organisms or its extracted enzymes to carry out chemical reactions that are not feasible or costly when produced by synthetic chemistry methods. These living organisms convert a substance to a chemically modified form with multiple uses and applications. Recent advances in the fields of molecular genetics and nucleic acid chemistry have resulted in a proliferation of biotechnology products. In medicine, modern biotechnology can be used to manufacture existing and new biomedicines relatively easily and cheaply. This modern biotechnology find application in biomedicines such monoclonal antibodies (mAbs), therapeutic proteins, pharmacogenomics, and genetic testing.

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