

Informative Abstract

Based on modern life science, biological drugs combine advanced engineering technology and scientific principles of other basic disciplines, and transform organisms or process biological raw materials according to leading designs.

Biopharmaceutical raw materials are mainly natural biological materials, including microorganisms, human body, animals, plants, Marine organisms and so on. With the development of biotechnology, purposeful artificial biological raw materials have become the main source of biopharmaceutical raw materials. Biological drugs are characterized by high pharmacological activity, small toxic and side effects and high nutritional value. Biological drugs mainly include proteins, nucleic acids, carbohydrates, lipids and so on. The constituent units of these substances are amino acids, nucleotides, monosaccharides, fatty acids, etc., which are not only harmless to the human body but also important nutrients.

This book collected more than 30 academic papers published by Professor Cheng-Hao Jin in the field of biological medicine, The research was supported by the central government supports local college reform and development fund talent training projects, Heilongjiang Touyan Innovation Team Program (2019HTY078), the Project for Heilongjiang Bayi Agricultural University (XDB202012), Heilongjiang Bayi Agricultural University Support Program for “San Zong” (TDJH201905), Heilongjiang Farms & Land Reclamation Administration Support Project for Key Scientific Research (HKKYZD190705), Heilongjiang Provincial Science Foundation Project (LC2015036), and Heilongjiang Postdoctoral Research Initiation Fund Project (LBH-Q13132). The research results of a series of topics were summarized, and the physicochemical properties, preparation technology, pharmacological action and molecular mechanism of some biological drugs were introduced, which reflected the partial progress in the frontier research field of biological drugs.

The book can be used for reference by teachers and students of colleges and universities in the fields of biology, pharmacy, medicine and other related majors, as well as researchers in government

departments and scientific research institutes. Due to the limited level of the author of this book, it is inevitable that there will be omissions and improper places in the process of writing, please academic colleagues and readers in the process of reading this book, can put forward valuable opinions.