

RECENT ADVANCES IN ANIMAL CELL AND TISSUE CULTURE

There has been a rapid increase in the number and demand for approved biopharmaceuticals produced from animal cell culture processes over the last few years. In part, this has been due to the efficacy of several humanized monoclonal antibodies that are required at large doses for therapeutic use. There have also been several identifiable advances in animal cell technology that has enabled efficient biomanufacture of these products. Gene vector systems allow high specific protein expression and some minimize the undesirable process of gene silencing that may occur in prolonged culture. Characterization of cellular metabolism and physiology has enabled the design of fed-batch and perfusion bioreactor processes that has allowed a significant improvement in product yield, some of which are now approaching 5 g/L. Many of these processes are now being designed in serum-free and animal-component-free media to ensure that products are not contaminated with the adventitious agents found in bovine serum. There are several areas that can be identified that could lead to further improvement in cell culture systems. In the preparation of this book, it has been the author's aim to keep in mind not only the requirements of students in this subject but as well the needs of student.

Contents: • Human Stem Cell • Future Growth and Directions • Applied Genetics • Molecular Cloning • Transvaginal Oocyte Retrieval • Biological Functions and Evolution

Dr. A.K. Sharma is Assistant Professor in the Department of Zoology at Samta College, Jandaha (Vaishali), a constituent unit of Bhim Rao Ambedkar University, Muzaffarpur. Authored several books, he has participated in many International seminars.



Globus Press

448, Pocket-V, Mayur Vihar
Phase-1, Delhi-110091 (INDIA)
Ph. : 011-4754 1851, 4301 5270
email : globuspress2012@gmail.com
visit us at : www.globuspress.in

ISBN 978-93-82074-17-5



9 789382 074175