IN THE NAME OF ALLAH,

MOST GRACIOUS, MOST MERCIFUL

HANDBOOK OF IMMUNOLIPOSOME

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PREFACE

Since 1988 the field of antibody-mediated delivery system has been developed rapidly and immensely, particularly the immunoliposome field of research. Until now no inclusive and detailed review of antibody and liposomes, and the current status of immunoliposomes covering different protocols of antibodies conjugation to liposomes and difficulties had overcome in this protocol in addition to a detailed review of the applications of immunoliposomes. The aim of our book is to prove medical and scientific students and researchers working in this area of research with an up-to-date, practical, all-encompassing reference source on the concept, antibody processing, liposome processing, antibody-liposome conjugation, immunoliposome stability and its applications.

mAbs are well known for their ability to bind to a wide variety of cell-surface proteins, including tumor cell-specific proteins. This unique feature of mAbs has opened an important arena of cancer treatments, particularly pre-targeted therapy. Although many obstacles still have to be overcome, immunoliposomes have become a valuable arsenal in the treatment of human diseases, including cancer imaging and therapy in specific targeted drug delivery therapy. Thus, mAb-based immunoliposomes are unique targeting agents for cancer diagnosis, imaging, and therapy. mAbs-targeted carriers of chemotherapies, particularly immunoliposomes, target tumor cells while potentially sparing normal cells. The concept of targeted drug delivery using immunoliposomes (liposomes bearing on their surface covalently coupled antibodies) is an appealing therapeutic strategy because of advantages such as the ability to target specific and restricted locations in the body to deliver an effective concentration of drugs to the diseased sites, and to reduce the drug concentration at nontarget sites, resulting in fewer unwanted effects.

The editors would like to thank all the co-authors for their perceptive and excellent contributions. We believe that readers will benefit from the wealth of information provided in each chapter, as it will add to their scientific education as well as assist in the conceptual development of the topic.

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