



**IN THE NAME OF ALLAH,  
MOST GRACIOUS, MOST MERCIFUL**



# HANDBOOK OF IMMUNOLIPOSOME

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***King Fahd National Library Cataloging-in-Publication Data***

Alanazi, Fars K

Handbook of Immunoliposome. / Fars K Alanazi; Awwad A. Radwan .-  
Riyadh, 2019

156 p., 17 x 24 cm

ISBN: 978-603-507-817-7

1- Immunoliposome

2- Immune response

I- Awwad A. Radwan (co-author)

II- Title

616.0793 dc

1441/3025

**L.D. No. 1441/3025**

**ISBN: 978-603-507-817-7**

The editor(s) would like to thank the Deanship of Scientific Research for providing support for this book as part of the “Support Authoring Books” program.

This book has been authored by the Deanship of Scientific Research at the University as part of the “Support Authoring Books” program. The book has been refereed by the Compliance Committee at the Deanship, and the program’s Supervisory Committee has approved the publishing of this book in its 16th session of the academic year 1438/1439 H., which was convened on 4-7-1439 H. (21-3-2018).

## 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.

We also express our sincere appreciation to the sponsorship of the Deanship of Scientific Research, King Saud University, Riyadh, Saudi Arabia.

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## TABLE OF CONTENTS

<b>Preface</b> .....	v
<b>Contributors</b> .....	vii
<b>List of Figures and Tables</b> .....	xiii
<b>List of Terms and Abbreviations</b> .....	xv
<b>Chapter 1: Introduction to Immunoliposomes</b> .....	1
Awwad A. Radwan, Fiyaz Shakeel, Fars K. Alanazi and Ibrahim A. Alsarra	
1.1. Introduction/History of Immunoliposomes .....	1
1.2. Evolution of ILs .....	2
1.3. Development of ILs .....	3
1.3.1. Preliminary Aspects Required for Development of ILs .....	3
1.3.1.1. The Molecular Target .....	3
1.3.1.2. The Design of ILs .....	5
1.3.1.3. The Lytic Peptides .....	6
1.3.1.4. The Cellular Model.....	7
1.3.2. Preparation of ILs.....	7
1.3.2.1. Preparation of Site Directed ILs.....	7
1.3.2.2. Preparation of Controlled-release ILs .....	7
1.3.2.2.1. Preparation of Heat-sensitive ILs .....	7
1.3.2.2.2. Preparation of pH-Sensitive ILs .....	8
1.3.2.2.3. Preparation of Immunodiagnostic ILs .....	9
1.4. Purification and Characterization of ILs .....	9
1.4.1. Purification of ILs .....	9
1.4.2. Measurement of Vesicle Size of ILs.....	9
1.4.3. Analysis of ILs .....	9
1.4.4. Analysis of Cell Binding of ILs.....	10
1.4.5. Analysis of Internalization of ILs.....	10
1.4.6. Preparation and Analysis of Drug-Loaded ILs .....	11
1.4.7. Preparation of Drug-Loaded ILs by Remote Loading Method.....	11
1.4.8. Cytotoxicity Assay of Drug Loaded ILs.....	12

1.5. Optimization of ILs for Tumor Targeting .....	12
1.6. Optimization of the scFv ILs for <i>In vitro</i> Targeting (Transfection) .....	13
1.7. Optimization of ILs for <i>In vivo</i> Tumor Targeting .....	14
1.8. Antitumor Efficacy of ILs for Targeted-Drug Delivery .....	14
1.9. Therapeutic Overview of ILs .....	15
1.9.1. <i>In vitro</i> Therapeutic Overview of ILs .....	15
1.9.2. <i>In vivo</i> Therapeutic Overview of ILs .....	19
1.10. Applications of ILs .....	23
1.10.1. <i>In vitro</i> Applications of ILs .....	23
1.10.2. <i>In vivo</i> Applications of ILs .....	25
References .....	26
<b>Chapter 2: Liposomes</b> .....	37
Mohsen Bayoumi and Fars K. Alanazi	
2.1. Introduction .....	37
2.2. History of Liposomes .....	38
2.3. What are Phospholipids? .....	39
2.4. How Liposomes are Formed? .....	41
2.5. The Role of Cholesterol in Liposomal Formulations .....	43
2.6. Stability of Liposomes .....	43
2.7. Types of Liposomes .....	44
2.8. Liposomes as a Drug Delivery System .....	48
2.9. Applications of Liposomes in Medicine .....	48
References .....	51
<b>Chapter 3: Antibody Overview</b> .....	57
Gamaldin I. Harisa and Fars K. Alanazi	
3.1. Introduction .....	57
3.2. Antibodies as Biotherapy .....	58
3.2.1. Antibodies as Plasma Proteins Member .....	59
3.2.2. Albumin and Globulins .....	60
3.2.3. Plasma Proteins Electrophoresis .....	60
3.3. Production of Antibodies by Immune Response .....	60
3.3.1. Antigen Presentation .....	61
3.3.2. Major Histocompatibility Complex .....	63
3.3.3. Complement System .....	63
3.3.4. Antibodies .....	64
3.3.4.1. Structure of Antibodies (Immunoglobulins (IgG)) .....	64
3.3.4.2. Classes of Immunoglobulin (IgG) .....	65

3.3.4.3. Variability of Antibody.....	65
3.4. Monoclonal Antibodies.....	66
3.4.1. Protocol of mAbs Production by Hybridoma Technology .....	67
3.4.2. Antibody Humanization .....	68
3.4.3. Mechanisms of Action of mAbs.....	71
3.4.4. Application of mAbs .....	71
3.4.4.1. mAbs in Diagnosis.....	71
3.4.4.2. mAbs in Gene Cloning.....	72
3.4.4.3. mAbs and Cells Identification.....	72
3.4.4.4. Identification of Cell Surface Markers.....	72
3.4.4.5. Detection of Intracellular Antigen .....	72
3.4.4.6. mAbs as Therapeutic Agent.....	73
3.4.5. Industrial Production of mAbs .....	74
3.4.6. Antibody Formulations Problems.....	74
3.4.7. Antibody Intracellular Targeting.....	76
3.4.8. Antibody Fragments .....	77
3.4.9. Antibody Immuno-Conjugates .....	77
3.4.10. Routes of Antibody Administration .....	77
References.....	79
<b>Chapter 4: Conjugation in Immunoliposomes .....</b>	<b>83</b>
Awwad A. Radwan and Fars K. Alanazi	
4.1. Introduction.....	83
4.2. General Features of Drug Delivery Systems Using Liposomes .....	83
4.3. Common Characteristic of Immunoliposomes.....	86
4.4. Many Barriers to be Crossed by Immunoliposomes <i>In vivo</i> .....	87
4.4.1. Barriers Come Across the Transport Stage .....	88
4.4.1.1. Integrity of Immunoliposomes in the Blood Stream.....	88
4.4.1.2. Clear Out of Immunoliposomes from the Blood Stream .....	88
4.4.1.3. Immunogenicity .....	89
4.4.1.4. Passage of the Endothelium Lining the Blood Vessels.....	90
4.4.1.5. Intra-Tumoral Moving .....	90
4.4.2. Barriers Come Across the Effector Stage.....	91
4.4.2.1. Cell Binding.....	92
4.4.2.1.1. Selection of a Target-Epitope.....	92
4.4.2.1.2. Binding Specificity and Steric-Stabilization .....	92
4.4.2.2. Therapeutic Accessibility.....	93
4.4.2.2.1. Extracellular Liberate of Loaded Drug from Surface-Combined Immunoliposomes .....	93

4.4.2.2.2. Discriminatory Move of Immunoliposomes-Loaded Drug to Tumor Cells.....	94
4.4.2.2.3. Incorporation of Surface-Attached Immunoliposomes .....	95
4.4.2.2.4. Fusion of Immunoliposomes with the Target-Cells’ Plasma Membrane .....	96
4.4.3. Enhancing the Therapeutic Accessibility of Immunoliposomes-Loaded Drugs...	97
4.4.3.1. Thermo-Susceptible Immunoliposomes.....	97
4.4.3.2. pH-Susceptible Immunoliposomes .....	97
4.4.3.3. Immuno-Enzymosome Approach .....	98
4.5. Conjugation in Immunoliposomes .....	98
4.5.1. Immobilization of Proteins onto Liposomes by Adsorption.....	99
4.5.2. Immobilization of Poly(Amino Acid) onto Liposomes .....	100
4.5.3. Immobilization of Proteins onto Liposomes by Incorporation into the Membrane During Liposome Formation.....	100
4.5.4. Covalent Immobilization of Proteins onto Liposomes .....	102
4.5.5. Immobilization of Modified Proteins onto Liposomes .....	107
4.5.6. Long-Circulating Immunoliposomes.....	117
4.5.7. Heat-Sensitive Immunoliposomes .....	124
4.6. Future Perspectives .....	125
4.6.1. Liposome Nanoparticles as Proteins and Genes Delivery System .....	125
4.6.2. Process Analytical Technology (PAT) in Manufacturing Liposomes .....	126
4.6.3. Regulatory Aspects on the Development of Liposomes and Immunoliposomes Nanomedicines .....	127
4.6.3.1. The Necessity to Liposomal Regulatory Aspects .....	127
4.6.3.2. Quality Regulatory Aspects Documentation of Liposomes and Other Nanomedicines .....	128
4.6.3.3. Pre-clinical Regulatory Aspects Documentation of Liposomes and Other Nanomedicines .....	128
4.6.3.4. Clinical Regulatory Aspects Documentation of Liposomes and Other Nanomedicines.....	128
4.6.3.5. Pharmacoeconomic Regulatory Aspects Documentation of Liposomes and Other Nanomedicines .....	129
4.6.4. Scale and Large Scale Productions of Immunoliposomes .....	130
References.....	133
<b>Index.....</b>	<b>153</b>

## LIST OF FIGURES AND TABLES

Figure (1.1). Step by step evolution of ILs.....	4
Figure (1.2). Different types of antibody derivatives.....	6
Figure (2.1). Structure of liposomes.....	38
Figure (2.2). Structure of phospholipids .....	40
Figure (2.3). How liposomes are formed from phospholipid.....	41
Figure (2.4). Differences between liposomes.....	42
Figure (2.5). Schematic illustration of liposomes .....	42
Figure (3.1). Production of antibodies by B cells.....	61
Figure (3.2). Structure domain of antibodies .....	62
Figure (3.3). Production of monoclonal antibodies.....	68
Figure (3.4). Humanization murine antibodies by (CDR) grafting .....	69
Figure (3.5). Production of fully human monoclonal antibodies .....	70
Figure (3.6). Humanization reduced antibodies immunogenicity .....	70
Figure (3.7). Outline of steps involved in mAbs manufacturing process.....	75
Figure (4.1). Different pathways of drug internalization .....	85
Figure (4.2). Schematic representation of the currently used types .....	90
Figure (4.3). Demonstrative diagram of active transfer .....	95
Figure (4.4). Conjugation between carboxy group of antibodies.....	102
Figure (4.5). Conjugation of amino group on liposome surface .....	103
Figure (4.6). Activation of carbohydrate molecule of glycoprotein molecule ...	104
Figure (4.7). Activation of carbohydrate molecule of glycolipid molecule .....	105
Figure (4.8). The structure of carboxyacyl derivatives .....	106
Figure (4.9). The conjugation of protein to liposomes.....	106
Figure (4.10). Synthesis of carboxyacyl derivative of PE.....	107
Figure (4.11). Synthesis of N-[4-(p-maleimidophenyl)butyryl].....	111
Figure (4.12). Covalent conjugation of Fab' fragments .....	112
Figure (4.13). Reaction sequence.....	114
Figure (4.14). Chemical processes of replacement .....	116

Figure (4.15). The chemical processes of conjugation.....	117
Figure (4.16). Representative sketch of different types of immunoliposomes....	118
Figure (4.17). Schematic representation of the conjugation.....	120
Figure (4.18). Schematic representation .....	121
Figure (4.19). Synthesis of PEG-DSPE derivatives .....	121
Figure (4.20). The synthetic pathway of pNP-PEG-PE .....	123
Figure (4.21). Schematic diagram for a large-scale immunoliposome facility ...	132
Table (1.1). Overview of therapeutic application of ILs for <i>in vitro</i> drug delivery.....	16
Table (1.2). Overview of therapeutic application of ILs for <i>in vivo</i> drug delivery.....	17
Table (4.1). Methods of analytical technologies of liposome products.....	127

## LIST OF TERMS AND ABBREVIATIONS

ability	appreciation
accessibility	approach
acid	arabia
across	are
action	area
add	arena
addition	arsenal
administration	as
adsorption	aspects
advantages	assay
afars	assist
agent	at
agents	attached
aim	authors
alanazi	awwad
albumin	barriers
alkayyali	based
all	bayoumi
also	be
although	bearing
amino	because
an	become
analysis	been
and	believe
antibodies	benefit
antibody	bind
antibodyliposome	binding
antigen	blood
antitumor	body
appealing	book
application	box
applications	by

cancer  
carriers  
cell  
cells  
cellular  
chair  
chapter  
characteristic  
characterization  
chemotherapies  
cholesterol  
circulating  
classes  
clear  
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cytotoxicity  
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deliver  
delivery  
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design  
detailed  
detection  
developed  
development  
dhna  
diagnosis  
different  
difficulties  
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director  
discriminatory  
diseased  
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variability  
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vessels  
vi  
vii  
viii  
vitro  
vivo  
we  
wealth  
well  
what  
while  
wide  
will  
with  
working  
would