Thank you unquestionably much for downloading liposomes as drug carriers recent trends and progress. Most likely you have knowledge that, people have see numerous times for their favorite books as soon as this liposomes as drug carriers recent trends and progress, but end going on in harmful downloads.

Rather than enjoying a fine book afterward a cup of coffee in the afternoon, on the other hand they juggled past some harmful virus inside their computer. liposomes as drug carriers recent trends and progress is clear in our digital library an online permission to it is set as public thus you can download it instantly. Our digital library saves in combined countries, allowing you to get the most less latency era to download any of our books in imitation of this one. Merely said, the liposomes as drug carriers recent trends and progress is universally compatible in the same way as any devices to read.

**Liposomes as Drug Carriers** - Gregory Gregoriadis - 1988-06
Sixty contributions on liposomes and their uses in drug delivery. Conventional use of drugs suffers from indiscriminate drug action leading to side effects; failure of drugs to reach areas in need of pharmacological intervention; and premature drug inactivation and secretion. This book describes how liposomes incorporating drugs can direct these to diseased areas (in isolation from non-target biological areas) and introduce drugs to areas otherwise inaccessible. Discusses the interaction of liposomes with the biological milieu in vitro and in vivo, ways of optimizing liposomal behavior by manipulation of the carrier, applications related to antimicrobial and cancer therapy, vaccines, enzyme therapy, metal detoxification, diagnostics, and more.

**Liposomes in Drug Delivery** - AlexanderT. Florence - 2017-10-05
First Published in 2017. Routledge is an imprint of Taylor & Francis, an Informa company.

**Liposomes in Drug Delivery** - AlexanderT. Florence - 2017-10-05
First Published in 2017. Routledge is an imprint of Taylor & Francis, an Informa company.

**Application of Nanotechnology in Drug Delivery** - Ali Demir Sezer - 2014-07-25
This book collects reviews and original articles from eminent experts working in the interdisciplinary arena of nanotechnology use in drug delivery. From their direct and recent experience, the readers can achieve a wide vision on the new and ongoing potentialities of nanotechnology application of drug delivery. Since the advent of analytical techniques and capabilities to measure particle sizes in nanometer ranges, there has been tremendous interest in the use of nanoparticles for more efficient methods.
information about Drug Carriers in this eBook to be deeper than what you design, optimization, and adaptation of gene delivery systems for the treatment of cancer, cardiovascular, pulmonary, genetic, and infectious diseases, and considers assessment and review procedures involved in the development of gene-based pharmaceuticals.

Application of Nanotechnology in Drug Delivery - Ali Demir Sezer - 2014-07-25
This book collects reviews and original articles from eminent experts working in the interdisciplinary arena of nanotechnology use in drug delivery. From their direct and recent experience, the readers can achieve a wide vision on the new and ongoing potentialities of nanotechnology application of drug delivery. Since the advent of analytical techniques and capabilities to measure particle sizes in nanometer ranges, there has been tremendous interest in the use of nanoparticles for more efficient methods of drug delivery. On the other hand, this reference discusses advances in design, optimization, and adaptation of gene delivery systems for the treatment of cancer, cardiovascular, pulmonary, genetic, and infectious diseases, and considers assessment and review procedures involved in the development of gene-based pharmaceuticals.

Liposomes in Drug Delivery - AlexanderT. Florence - 2017-10-05
First Published in 2017. Routledge is an imprint of Taylor & Francis, an Informa company.

Drug Carriers: Advances in Research and Application: 2011 Edition - 2012-01-09
Drug Carriers: Advances in Research and Application: 2011 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Drug Carriers. The editors have built Drug Carriers: Advances in Research and Application: 2011 Edition on the vast information databases of ScholarlyNews™. You can expect the information about Drug Carriers in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Drug Carriers: Advances in Research and Application: 2011 Edition has been produced by the world’s leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

Nanoparticulates as Drug Carriers - V. P. Torchilin - 2006
Written by key experts in the field of nanomedicine, this book provides a broad introduction to the important field of nanomedicine and application of nanotechnology for drug delivery. It covers up-to-date information regarding various nanoparticulate drug delivery systems, describes the various opportunities for the application of nanoparticulate drug carriers in different areas of clinical medicine, and analyzes already available
different areas of clinical medicine, and analyzes already available advanced textbook by graduate students and young scientists and clinicians at the early stages of their career. It is also suitable for non-experts from related areas of chemistry, biochemistry, molecular biology, biomedical engineering, physiology, experimental and clinical medicine, and pharmaceutical sciences, who are interested in general problems of drug delivery and drug targeting, as well as in more specialized topics of using nanoparticulate-mediated drug delivery approaches in the individual areas of clinical medicine. Prof Torchilin is an expert in Nanomedicine and a recipient of numerous awards including the Lenin Prize in Science & Technology of the former USSR, membership in the European Academy of Sciences, and AAPS Research Achievement Award in Pharmaceutics and Drug Delivery. He served as an Associate Professor of Radiology at Harvard Medical School before joining Northeastern University as the Chairman of the Department of Pharmaceutical Sciences. Sample Chapter(s). Chapter 1: Introduction. Nanocarriers for Drug Delivery: Needs and Requirements (442 KB). Contents: Nanoparticle Flow: Implications for Drug Delivery (A T Florence); Polymer Micelles as Drug Carriers (E V Batrakova et al.); Lipoproteins as Pharmaceutical Carriers (S Liu et al.); Dendrimers as Nanoparticulate Drug Carriers (S Svenson & D A Tomalia); Cells and Cell Ghosts as Drug Carriers (J M Lanao & M L Sayalero); Magnetic Nanoparticles as Drug Carriers (U O Hnfeli & M Chastellain); Liposomal Drug Carriers in Cancer Therapy (A A Gabizon); Delivery of Nanoparticles to the Cardiovascular System (B-A Khaw); Nanoparticles for Targeting Lymphatics (W Phillips); Nanoparticulate Carriers for Ocular Drug Delivery (A Sanchez & M J Alonso); and other papers. Readership: Graduate students, academics in nanomedicine, clinicians, pharmacologists, pharmacists, bioengineers, researchers in biotechnology and diagnostic imaging."

Nanoparticulates as Drug Carriers - V. P. Torchilin - 2006
Written by key experts in the field of nanomedicine, this book provides a broad introduction to the important field of nanomedicine and application of nanotechnology for drug delivery. It covers up-to-date information regarding various nanoparticulate drug delivery systems, describes the various opportunities for the application of nanoparticulate drug carriers in information on their clinical applications. This book can be used as an advanced textbook by graduate students and young scientists and clinicians at the early stages of their career. It is also suitable for non-experts from related areas of chemistry, biochemistry, molecular biology, biomedical engineering, physiology, experimental and clinical medicine, and pharmaceutical sciences, who are interested in general problems of drug delivery and drug targeting, as well as in more specialized topics of using nanoparticulate-mediated drug delivery approaches in the individual areas of clinical medicine. Prof Torchilin is an expert in Nanomedicine and a recipient of numerous awards including the Lenin Prize in Science & Technology of the former USSR, membership in the European Academy of Sciences, and AAPS Research Achievement Award in Pharmaceutics and Drug Delivery. He served as an Associate Professor of Radiology at Harvard Medical School before joining Northeastern University as the Chairman of the Department of Pharmaceutical Sciences. Sample Chapter(s). Chapter 1: Introduction. Nanocarriers for Drug Delivery: Needs and Requirements (442 KB). Contents: Nanoparticle Flow: Implications for Drug Delivery (A T Florence); Polymer Micelles as Drug Carriers (E V Batrakova et al.); Lipoproteins as Pharmaceutical Carriers (S Liu et al.); Dendrimers as Nanoparticulate Drug Carriers (S Svenson & D A Tomalia); Cells and Cell Ghosts as Drug Carriers (J M Lanao & M L Sayalero); Magnetic Nanoparticles as Drug Carriers (U O Hnfeli & M Chastellain); Liposomal Drug Carriers in Cancer Therapy (A A Gabizon); Delivery of Nanoparticles to the Cardiovascular System (B-A Khaw); Nanoparticles for Targeting Lymphatics (W Phillips); Nanoparticulate Carriers for Ocular Drug Delivery (A Sanchez & M J Alonso); and other papers. Readership: Graduate students, academics in nanomedicine, clinicians, pharmacologists, pharmacists, bioengineers, researchers in biotechnology and diagnostic imaging."

Nanopharmaceutical Advanced Delivery Systems - Vivek Dave - 2020-12-29
The book provides a single volume covering detailed descriptions about various delivery systems, their principles and how these are put in use for the treatment of multiple diseases. It is divided into four sections where the
Nanopharmaceutical Advanced Delivery Systems - Vivek Dave - 2020-12-29

The book provides a single volume covering detailed descriptions about various delivery systems, their principles and how these are put in use for the treatment of multiple diseases. It is divided into four sections where the first section deals with the introduction and importance of novel drug delivery system. The second section deals with the most advanced drug delivery systems like microbubbles, dendrimers, lipid-based nanoparticles, nanofibers, microemulsions etc., describing the major principles and techniques of the preparations of the drug delivery systems. The third section elaborates on the treatments of diverse diseases like cancer, topical diseases, tuberculosis etc. The fourth and final section provides a brief informative description about the regulatory aspects of novel drug delivery system that is followed in various countries.

Liposomes - Angel Catala - 2017-10-25

Liposomes have received increased attention in recent years. Nevertheless, liposomes, due to their various forms and applications, require further investigation. These structures can deliver both hydrophilic and hydrophobic drugs. Preparation of liposomes results in different properties for these systems. In addition, there are many factors and difficulties that affect the development of liposome drug delivery structure. The purpose of this book is to concentrate on recent developments on liposomes. The articles collected in this book are contributions by invited researchers with a long-standing experience in different research areas. We hope that the material presented here is understandable to a broad audience, not only scientists but also people with general background in many different biological sciences. This volume offers you up-to-date, expert reviews of the fast-moving field of liposomes.

Recent Advances in Novel Drug Carrier Systems - Ali Demir Sezer - 2012-10-31

This contribution book collects reviews and original articles from eminent experts working in the interdisciplinary arena of novel drug delivery systems and their uses. From their direct and recent experience, the readers can achieve a wide vision on the new and ongoing potentialities of different drug delivery systems. Since the advent of analytical techniques and capabilities to measure particle sizes in nanometer ranges, there has been tremendous interest in the use of nanoparticles for more efficient methods of drug delivery. On the other hand, this reference discusses advances in the design, optimization, and adaptation of gene delivery systems for the treatment of cancer, cardiovascular, pulmonary, genetic, and infectious diseases, and considers assessment and review procedures involved in the development of gene-based pharmaceuticals.
familiarize themselves with this area Includes examples of how the experts working in the interdisciplinary arena of novel drug delivery systems and their uses. From their direct and recent experience, the readers can achieve a wide vision on the new and ongoing potentialities of different drug delivery systems. Since the advent of analytical techniques and capabilities to measure particle sizes in nanometer ranges, there has been tremendous interest in the use of nanoparticles for more efficient methods of drug delivery. On the other hand, this reference discusses advances in the design, optimization, and adaptation of gene delivery systems for the treatment of cancer, cardiovascular, pulmonary, genetic, and infectious diseases, and considers assessment and review procedures involved in the development of gene-based pharmaceuticals.

**Nanostructures for Drug Delivery** - Ecaterina Andronescu - 2017-03-24
Nanostructures for Drug Delivery extensively covers the various nanostructured products that have been tested as carriers in target drug delivery systems. In addition, the book analyses the advantages of, and issues related to, using nanostructured materials in drug delivery systems, also detailing various nanocarrier preparation techniques. As delivering the drug to the target site is a major problem in providing effective treatment for many diseases, this book covers the latest advancements in numerous nanotechnological products that are being used in disease detection, controlled drug delivery, as biosensors, and in tissue engineering that have been developed for more efficient patient healthcare. Due to the versatility of nanostructured materials, it is now possible to deliver a drug at its target site in a more accurate and efficient way. This volume is an up-to-date, state-of-the-art work that highlights the principal mechanistic aspects related to the delivery of active nanoscale therapeutic agents (natural or synthetic) and their release profile in different environmental media. It highlights nanoscale encapsulation strategies and discusses both organic and inorganic nanomaterials as carriers and delivery platforms. Demonstrates how nanostructures are successfully employed in drug delivery stems and as drug delivery agents, allowing biomaterials scientists and biochemists to create more effective drug delivery systems Offers an overview of recent research into the use of nanostructures in drug delivery techniques in a cogent, synthesized way, allowing readers to quickly familiarize themselves with this area Includes examples of how the application of nanostructures have improved the efficiency of drug delivery systems, showing medical scientists how they are beneficial

**Symposium on Liposomes as Drug Carriers** - - 1986

**Symposium on Liposomes as Drug Carriers** - - 1986

**Stealth Liposomes** - Danilo D. Lasic - 2018-05-04

application of nanostructures have improved the efficiency of drug delivery systems, showing medical scientists how they are beneficial
This book examines stealth liposomes from a multidisciplinary approach, which includes theoretical polymer physics, organic synthesis, colloid science, and biology. Discussions include theory, chemistry, biochemistry, pharmacology, preclinical studies in model systems, and medical applications in humans.

**Stealth Liposomes** - Danilo D. Lasic - 2018-05-04
This book examines stealth liposomes from a multidisciplinary approach, which includes theoretical polymer physics, organic synthesis, colloid science, and biology. Discussions include theory, chemistry, biochemistry, pharmacology, preclinical studies in model systems, and medical applications in humans.

**Multifunctional Systems for Combined Delivery, Biosensing and Diagnostics** - Alexandru Mihai Grumezescu - 2017-05-03
Multifunctional Systems for Combined Delivery, Biosensing, and Diagnostics explores how multifunctional nanocarriers are being used in combined delivery and diagnostics in contemporary medicine. Particular attention is given to efforts to i) reduce the side effects of therapeutic agents, ii) increase the pharmacological effect, and iii) improve aqueous solubility and chemical stability of different therapeutic agents. The chapters focus on applications of nanostructured materials and nanocarriers, highlighting how these can be used effectively in both diagnosis and delivery. This applied focus makes the book an important reference source for those wanting to learn more about how specific nanomaterials and nanotechnology systems can help to solve drug delivery and diagnostics problems. This book is a valuable resource for materials scientists, bioengineers, and medical researchers who are looking for an applications-oriented guide on how nanotechnology and nanomaterials can be used effectively throughout the medical treatment process, from diagnosis to treatment. Explores the benefits of using a variety of nanomaterials as drug delivery agents Explains how nanocarriers can reduce the side effects of therapeutic agents Provides an analysis of the pros and cons of using specific nanocarriers to solve particular diagnosis and delivery problems

**Drug Carriers—Advances in Research and Application: 2012 Edition** - 2012-12-26
Drug Carriers—Advances in Research and Application: 2012 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Drug Carriers. The editors have built Drug Carriers—Advances in Research and Application: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Drug Carriers in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Drug Carriers—Advances in Research and Application: 2012 Edition has been produced by the world’s leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority,
Liposomes have received increased attention in recent years. Nevertheless, liposomes, due to their various forms and applications, require further investigation. These structures can deliver both hydrophilic and hydrophobic drugs. The preparation of liposomes results in different detailed operation of liposomal formulation, and further demonstrating their potential applications. Therefore, this volume shows the features of experimental report or protocol for proving a guide to scientists, research students, and young investigators in pharmaceutical enterprises.

**Liposome-Based Drug Delivery Systems** - Wan-Liang Lu - 2021-07-10
This volume describes the protocols for fabrication of liposomal drug delivery system, and consists of two parts. The first part emphasizes the basic protocols and concepts for fabrication of drug-loaded liposomes. For new investigators, laying the groundwork is the first step. This part focuses on the fabrication details in liposomes formulations, which are the so-called small tricks while usually not disclosed in mostly published research articles. However, these processing details are crucial for the preparation of liposomes. And the second part focuses on the strategies in modified and/or functionalized liposomes to adapt to pathophysiological environment, as well as their application in treating diseases. As new analytical and synthetic technologies become available, and improved understanding of pathophysiology, various functionalized drug liposomes are developing to fit the requirements of different therapeutic purposes, exhibiting a broad range of applications. Accordingly, the objectives of this part are aimed at deeply unearthing the formulation of drug-loaded liposomes, describing the detailed operation of liposomal formulation, and further demonstrating their potential applications. Therefore, this volume shows the features of experimental report or protocol for proving a guide to scientists, research students, and young investigators in pharmaceutical enterprises.

**Liposomes in Drug Delivery** - Gregory Gregoriadis - 1993
**Liposomes in Drug Delivery** - Gregory Gregoriadis - 1993
Liposomes have received increased attention in recent years. Nevertheless, liposomes, due to their various forms and applications, require further investigation. These structures can deliver both hydrophilic and hydrophobic drugs. The preparation of liposomes results in different properties for these systems. In addition, there are many factors and difficulties that affect the development of liposome drug delivery structures. The purpose of this book is to concentrate on recent developments in liposomes. The articles collected in this book are contributions by invited researchers with long-standing experience in different research areas. We hope that the material presented here is understandable to a broad audience, not only scientists but also people with a general background in many different biological sciences. This volume offers up-to-date, expert reviews of the fast-moving field of liposomes and is divided in two major sections: 1. Introduction; 2. Liposomes general properties

This book provides an up-to-date evaluation of clinical aspects of newly available "long-circulating liposome" formulations. Based on results from numerous clinical studies, the book describes the fundamentals of this new technology, discusses how it may influence the pharmacology of existing well-known agents reformulated in this manner, and elaborates on future expectations. It provides the practicing clinician - in particular, oncologists and critical care infectious disease physicians - with the tools needed to use these new formulations towards the best outcome for the patient.

Pulmonary Drug Delivery - Ali Nokhodchi - 2015-08-03
Drug therapy via inhalation route is at the cutting edge of modern drug delivery research. There has been significant progress on the understanding of drug therapy via inhalation products. However, there are still problems associated with their formulation design, including the interaction between the active pharmaceutical ingredient(s) (APIs), excipients and devices. This book seeks to cover some of the most pertinent issues and challenges of such formulation design associated with industrial production and desirable clinical outcome. The chapter topics have been selected with a view to integrating the factors that require consideration in the selection and design of device and formulation components which impact upon patient usability and clinical effectiveness. The challenges involved with the delivery of macromolecules by inhalation to both adult and pediatric patients are also covered. Written by leading international experts from both academia and industry, the book will help readers (formulation design scientists, researchers and post-graduate and specialized undergraduate students) develop a deep understanding of key aspects of inhalation formulations as well as detail ongoing challenges and advances associated with their development.
Drug therapy via inhalation route is at the cutting edge of modern drug delivery research. There has been significant progress on the understanding of drug therapy via inhalation products. However, there are still problems associated with their formulation design, including the interaction between the active pharmaceutical ingredient(s) (APIs), excipients and devices. This book seeks to cover some of the most pertinent issues and challenges of such formulation design associated with industrial production and desirable clinical outcome. The chapter topics have been selected with a view to integrating the factors that require consideration in the selection and design of device and formulation components which impact upon patient usability and clinical effectiveness. The challenges involved with the delivery of macromolecules by inhalation to both adult and pediatric patients are also covered. Written by leading international experts from both academia and industry, the book will help readers (formulation design scientists, researchers and post-graduate and specialized undergraduate students) develop a deep understanding of key aspects of inhalation formulations as well as detail ongoing challenges and advances associated with their development.

**Liposome Technology** - Gregoriadis - 2019-07-23

Although the role of liposomes in drug targeting has been discussed extensively in several reviews and books, there has been no comprehensive coverage of related methodology. This book constitutes the first attempt to put together all aspects of liposome technology as applied to medical sciences. Volume I deals directly with methods for the preparation of liposomes and auxiliary techniques.

**Liposome Technology** - Gregoriadis - 2019-07-23

Although the role of liposomes in drug targeting has been discussed extensively in several reviews and books, there has been no comprehensive coverage of related methodology. This book constitutes the first attempt to put together all aspects of liposome technology as applied to medical sciences. Volume I deals directly with methods for the preparation of liposomes and auxiliary techniques.

**Use of Liposomes as Drug Carriers** - Chu-hua Kang - 1979

**Design and Development of New Nanocarriers** - Alexandru Mihai Grumezescu - 2017-12-12

Design and Development of New Nanocarriers focuses on the design and development of new nanocarriers used in pharmaceutical applications that have emerged in recent years. In particular, the pharmaceutical uses of microfluidic techniques, supramolecular design of nanocapsules, smart hydrogels, polymeric micelles, exosomes and metal nanoparticles are discussed in detail. Written by a diverse group of international researchers, this book is a valuable reference resource for those working in both biomaterials science and the pharmaceutical industry. Shows how nanomanufacturing techniques can help to create more effective, cheaper pharmaceutical products Explores how nanofabrication techniques developed in the lab have been translated to commercial applications in recent years Explains safety and regulatory aspects of the use of nanomanufacturing processes in the pharmaceutical industry

**Design and Development of New Nanocarriers** - Alexandru Mihai Grumezescu - 2017-12-12

Design and Development of New Nanocarriers focuses on the design and development of new nanocarriers used in pharmaceutical applications that have emerged in recent years. In particular, the pharmaceutical uses of microfluidic techniques, supramolecular design of nanocapsules, smart hydrogels, polymeric micelles, exosomes and metal nanoparticles are discussed in detail. Written by a diverse group of international researchers, this book is a valuable reference resource for those working in both biomaterials science and the pharmaceutical industry. Shows how nanomanufacturing techniques can help to create more effective, cheaper pharmaceutical products Explores how nanofabrication techniques developed in the lab have been translated to commercial applications in recent years Explains safety and regulatory aspects of the use of nanomanufacturing processes in the pharmaceutical industry

**Liposome Technology** - Gregoriadis - 2018-02-01
Liposome Technology - Gregoriadis - 2018-02-01
Although the role of liposomes in drug targeting has been discussed extensively in several reviews and books, there has been no comprehensive coverage of related methodology. This book constitutes the first attempt to put together all aspects of liposome technology as applied to medical sciences. Volume III is devoted to the growing variety of techniques yielding targeted liposomes and to approaches of studying liposomal behaviour in the biological milieu both in vitro and in vivo.

Lipid Nanocarriers for Drug Targeting - Alexandru Mihai Grumezescu - 2018-04-16
Lipid Nanocarriers for Drug Targeting presents recent advances in the area of lipid nanocarriers. The book focuses on cationic lipid nanocarriers, solid lipid nanocarriers, liposomes, thermosensitive vesicles, and cubosomes, with applications in phototherapy, cosmetic and others. As the first book related to lipid nanocarriers and their direct implication in pharmaceutical nanotechnology, this important reference resource is ideal for biomaterials scientists and those working in the medical and pharmaceutical industries that want to learn more on how lipids can be used to create more effective drug delivery systems. Highlights the most commonly used types of lipid nanocarriers and explains how they are applied in pharmacy Shows how lipid nanocarriers are used in different types of treatment, including oral medicine, skin repair and cancer treatment Assesses the pros and cons of using different lipid nanocarriers for different therapies

Liposomes - D. D. Lasic - 1993
Critically reviews the applications of liposomes, including theoretical physics; chemistry; energy conversion; ecology; genetic engineering; food industry; cosmetics; and medicine, as well as their characteristics and properties. It also presents recent developments, such as Stealth liposomes.

Smart Nanovesicles for Drug Targeting and Delivery - Maria Carafa - 2019-05-20
We can use the short text on the SI page for the description, or you make slight modifications on it. The description/summary is only for promotion (flyer, distribution channels), and will not be included in the book You can use the short text on the SI page for the description Nanovesicles are highly-promising systems for the delivery and/or targeting of drugs, biomolecules and contrast agents. Despite the fact that initial studies in this area were performed on phospholipid vesicles, there is an ever-increasing interest in the use of other molecules to obtain smart vesicular carriers focusing on strategies for targeted delivery. These systems can be obtained
liposomes-as-drug-carriers-recent-trends-and-progress

Dionysios - 2012-12-19

Many newly proposed drugs suffer from poor water solubility, thus presenting major hurdles in the design of suitable formulations for administration to patients. Consequently, the development of techniques and materials to overcome these hurdles is a major area of research in pharmaceutical companies. Drug Delivery Strategies for Poorly Water-Soluble Drugs provides a comprehensive overview of currently used formulation strategies for hydrophobic drugs, including liposome formulation, cyclodextrin drug carriers, solid lipid nanoparticles, polymeric drug encapsulation delivery systems, self-microemulsifying drug delivery systems, nanocrystals, hydrosol colloidal dispersions, microemulsions, solid dispersions, cosolvent use, dendrimers, polymer-drug conjugates, polymeric micelles, and mesoporous silicnanoparticles. For each approach the book discusses the main instrumentation, operation principles and theoretical background, with a focus on critical formulation features and clinical studies. Finally, the book includes some recent and novel applications, scale-up considerations and regulatory issues. Drug Delivery Strategies for Poorly Water-Soluble Drugs is an essential multidisciplinary guide to this important area of drug formulation for researchers in industry and academia working in drug delivery, polymers and biomaterials.

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Maria Carafa - 2019-05-20

We can use the short text on the SI page for the description, or you make slight modifications on it. The description/summary is only for promotion (flyer, distribution channels), and will not be included in the book. You can use the short text on the SI page for the description. Nanovesicles are highly-promising systems for the delivery and/or targeting of drugs, biomolecules and contrast agents. Despite the fact that initial studies in this area were performed on phospholipid vesicles, there is an ever-increasing interest in the use of other molecules to obtain smart vesicular carriers focusing on strategies for targeted delivery. These systems can be obtained using newly synthesized smart molecules, or by intelligent design of opportune carriers to achieve specific delivery to the site of action. The drug/contrast agent-containing vesicles need to be directed to precise locations within the body to obtain desired magnitude and duration of the therapeutic or diagnostic effect. This spatial control in the delivery might open new avenues to modulate drug activity while avoiding side-effects and to optimize contrast agent properties while avoiding a broad distribution in the organism. However, delivering and targeting active substances into specific tissues and cells is still a challenge in designing novel therapeutic approaches against untreatable disorders, such as tumors and degenerative diseases.

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Many newly proposed drugs suffer from poor water solubility, thus presenting major hurdles in the design of suitable formulations for administration to patients. Consequently, the development of techniques and materials to overcome these hurdles is a major area of research in pharmaceutical companies. Drug Delivery Strategies for Poorly Water-Soluble Drugs provides a comprehensive overview of currently used formulation strategies for hydrophobic drugs, including liposome formulation, cyclodextrin drug carriers, solid lipid nanoparticles, polymeric drug encapsulation delivery systems, self-microemulsifying drug delivery systems, nanocrystals, hydrosol colloidal dispersions, microemulsions, solid dispersions, cosolvent use, dendrimers, polymer-drug conjugates, polymeric micelles, and mesoporous silicnanoparticles. For each approach the book discusses the main instrumentation, operation principles and theoretical background, with a focus on critical formulation features and clinical studies. Finally, the book includes some recent and novel applications, scale-up considerations and regulatory issues. Drug Delivery Strategies for Poorly Water-Soluble Drugs is an essential multidisciplinary guide to this important area of drug formulation for researchers in industry and academia working in drug delivery, polymers and biomaterials.

Smart Nanovesicles for Drug Targeting and Delivery - Maria Carafa - 2019-05-20

We can use the short text on the SI page for the description, or you make slight modifications on it. The description/summary is only for promotion (flyer, distribution channels), and will not be included in the book. You can use the short text on the SI page for the description. Nanovesicles are highly-promising systems for the delivery and/or targeting of drugs, biomolecules and contrast agents. Despite the fact that initial studies in this area were performed on phospholipid vesicles, there is an ever-increasing interest in the use of other molecules to obtain smart vesicular carriers focusing on strategies for targeted delivery. These systems can be obtained using newly synthesized smart molecules, or by intelligent design of opportune carriers to achieve specific delivery to the site of action. The drug/contrast agent-containing vesicles need to be directed to precise locations within the body to obtain desired magnitude and duration of the therapeutic or diagnostic effect. This spatial control in the delivery might open new avenues to modulate drug activity while avoiding side-effects and to optimize contrast agent properties while avoiding a broad distribution in the organism. However, delivering and targeting active substances into specific tissues and cells is still a challenge in designing novel therapeutic approaches against untreatable disorders, such as tumors and degenerative diseases.

Smart Nanovesicles for Drug Targeting and Delivery

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs

Dionysios Douroumis - 2012-12-19

Drug Delivery Strategies for Poorly Water-Soluble Drugs
the topic of image guided drug delivery and covers the latest imaging studies. Finally, the book includes some recent and novel applications, scale-up considerations and regulatory issues. Drug Delivery Strategies for Poorly Water-Soluble Drugs is an essential multidisciplinary guide to this important area of drug formulation for researchers in industry and academia working in drug delivery, polymers and biomaterials.

**Theranostics and Image Guided Drug Delivery** - Maya Thanou - 2018-01-05
Molecular imaging of drugs or drug carriers is a valuable tool that can provide important information on spatiotemporal distribution of drugs, allowing improved drug distribution at target sites. Chemically labelled drugs can be used to both diagnose and treat diseases. This book introduces the topic of image guided drug delivery and covers the latest imaging techniques and developments in theranostics, highlighting the interdisciplinary nature of this field as well as its translational ability. These technologies and techniques hold potential for individualised, safer therapies. The book introduces the chemistry behind labelling drugs or drug carriers for imaging. It then discusses current scientific progress in the discovery and development of theranostic agents as well as the latest advances in triggered drug delivery. Novel imaging techniques that can be combined with therapeutics are presented, as well as results and findings from early clinical trials. This text will provide postgraduates and researchers in various disciplines associated with drug discovery, including chemistry, device engineering, oncology, neurology, cardiology, imaging, and nanoscience, an overview of this important field where several disciplines have been combined to improve treatments. Readers will be introduced to techniques that can be translated to the clinic and be applied widely.

**Handbook of In Vivo Chemistry in Mice** - Katsunori Tanaka - 2020-02-25
Provides timely, comprehensive coverage of in vivo chemical reactions within live animals. This handbook summarizes the interdisciplinary expertise of both chemists and biologists performing in vivo chemical reactions within live animals. By comparing and contrasting currently available chemical and biological techniques, it serves not just as a collection of the pioneering work done in animal-based studies, but also as a technical guide to help readers decide which tools are suitable and best for their experimental needs. The Handbook of In Vivo Chemistry in Mice: From Lab to Living System introduces readers to general information about live animal experiments and detection methods commonly used for these animal models. It focuses on chemistry-based techniques to develop selective in vivo targeting methodologies, as well as strategies for in vivo chemistry and drug release. Topics include: currently available mouse models; biocompatible fluorophores; radionuclides for radiodiagnosis/radiotherapy; live animal imaging techniques such as positron emission tomography (PET) imaging; magnetic resonance imaging (MRI); ultrasound imaging; hybrid imaging; biocompatible chemical reactions; ligand-directed nucleophilic substitution chemistry; biorientational prodrug release strategies; and various techniques and developments in theranostics, highlighting the interdisciplinary nature of this field as well as its translational ability. These technologies and techniques hold potential for individualised, safer therapies. The book introduces the chemistry behind labelling drugs or drug carriers for imaging. It then discusses current scientific progress in the discovery and development of theranostic agents as well as the latest advances in triggered drug delivery. Novel imaging techniques that can be combined with therapeutics are presented, as well as results and findings from early clinical trials. This text will provide postgraduates and researchers in various disciplines associated with drug discovery, including chemistry, device engineering, oncology, neurology, cardiology, imaging, and nanoscience, an overview of this important field where several disciplines have been combined to improve treatments. Readers will be introduced to techniques that can be translated to the clinic and be applied widely.
drug release. Places emphasis on material properties required for the techniques of in vivo chemistry performed in live animals. Describes general information about commonly used live animal experiments and detection methods. Focuses on chemistry-based techniques to develop selective in vivo targeting methodologies, as well as strategies for in vivo chemistry and drug release. Places emphasis on material properties required for the development of appropriate compounds to be used for imaging and therapeutic purposes in preclinical applications. Handbook of In Vivo Chemistry in Mice: From Lab to Living System will be of great interest to pharmaceutical chemists, life scientists, and organic chemists. It will also appeal to those working in the pharmaceutical and biotechnology industries.

**Handbook of In Vivo Chemistry in Mice** - Katsunori Tanaka - 2020-02-25
Provides timely, comprehensive coverage of in vivo chemical reactions within live animals. This handbook summarizes the interdisciplinary expertise of both chemists and biologists performing in vivo chemical reactions within live animals. By comparing and contrasting currently available chemical and biological techniques, it serves not just as a collection of the pioneering work done in animal-based studies, but also as a technical guide to help readers decide which tools are suitable and best for their experimental needs. The Handbook of In Vivo Chemistry in Mice: From Lab to Living System introduces readers to general information about live animal experiments and detection methods commonly used for these animal models. It focuses on chemistry-based techniques to develop selective in vivo targeting methodologies, as well as strategies for in vivo chemistry and drug release. Topics include: currently available mouse models; biocompatible fluorophores; radionuclides for radiodiagnosis/radiotherapy; live animal imaging techniques such as positron emission tomography (PET) imaging; magnetic resonance imaging (MRI); ultrasound imaging; hybrid imaging; biocompatible chemical reactions; ligand-directed nucleophilic substitution chemistry; biorthogonal prodrug release strategies; and various selective targeting strategies for live animals. Completely covers current techniques of in vivo chemistry performed in live animals. Describes general information about commonly used live animal experiments and detection methods. Focuses on chemistry-based techniques to develop selective in vivo targeting methodologies, as well as strategies for in vivo chemistry and drug release. Places emphasis on material properties required for the techniques of in vivo chemistry performed in live animals. Describes general information about commonly used live animal experiments and detection methods. Focuses on chemistry-based techniques to develop selective in vivo targeting methodologies, as well as strategies for in vivo chemistry and drug release. Places emphasis on material properties required for the development of appropriate compounds to be used for imaging and therapeutic purposes in preclinical applications. Handbook of In Vivo Chemistry in Mice: From Lab to Living System will be of great interest to pharmaceutical chemists, life scientists, and organic chemists. It will also appeal to those working in the pharmaceutical and biotechnology industries.

Engineering of Biomaterials for Drug Delivery Systems: Beyond Polyethylene Glycol examines the combined issues of PEGylation and viable biomaterials as alternatives. With a strong focus on polymeric biomaterials, the book first reviews the major issues associated with PEGylation and its use in vivo. Chapters then focus on alternative polymer systems for drug delivery systems. Finally, nanoparticles and future perspectives are examined. This book is a valuable resource for scientists and researchers in biomaterials, pharmaceuticals and nanotechnology, and all those who wish to broaden their knowledge in this field. Provides a self-contained work for the field of biomaterials for drug delivery. Summarizes the current knowledge on PEGylation and strategies for bypassing it. Presents research on an important, though under-represented issue in biomaterials. Written by a world-class team of research scientists, engineers and clinicians.
Nanoparticles in Biomedical Imaging - Jeff W.M. Bulte - 2007-11-22
The current generation of imaging nanoparticles is diverse and dependent on its myriad of applications. This book provides an overview of how these imaging particles can be designed to fulfill specific requirements for applications across different imaging modalities. It presents, for the first time, a comprehensive interdisciplinary overview of the impact nanoparticles have on biomedical imaging and is a common central resource for researchers and teachers.

Liposomes as Drug Carriers in Cancer Chemotherapy - Harmke Ellens - 1982

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Liposomes as Drug Carriers in Cancer Chemotherapy - Harmke Ellens - 1982

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Liposomes: A Practical Approach - Vladimir Torchilin - 2003-06-05
This book is an up-to-date and unique collection of experimental protocols from an area of pharmaceutical research that is essential for the development of new, highly specific drugs as well as for the exploration of completely new therapeutic approaches to disease treatments.

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Liposomes: A Practical Approach - Vladimir Torchilin - 2003-06-05
This book is an up-to-date and unique collection of experimental protocols from an area of pharmaceutical research that is essential for the development of new, highly specific drugs as well as for the exploration of completely new therapeutic approaches to disease treatments.

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Liposomes: A Practical Approach - Vladimir Torchilin - 2003-06-05
This book is an up-to-date and unique collection of experimental protocols from an area of pharmaceutical research that is essential for the development of new, highly specific drugs as well as for the exploration of completely new therapeutic approaches to disease treatments.

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.

Biotechnology And Safety Assessment - John A. Thomas - 1993-06-30
In this volume, experts from academe, industry, and public health institutes discuss the issues involved in toxicology evaluation, safety assessment, and regulation of biotechnology-derived drugs, foods, and plant products. Coverage includes recombinant DNA agents, monoclonal antibodies, recombinant hormones and other proteins, biotechnology-derived drug delivery systems, gene therapy for genetic diseases, and genetically engineered plants and plant products. Full consideration is given to key methodological issues in product development and testing, such as use of "in vitro" and "in vivo" toxicology tests, choice of animal models, and use of transgenic animal models and genetically altered species to study human diseases. The book includes an appendix describing available animal models and a glossary of terms, definitions, and acronyms.
Liposomes are widely used in drug delivery to improve drug efficacy and to reduce side effects. For liposome-encapsulated drugs to become bioavailable and provide a therapeutic effect they must be released, which typically is a slow process that primarily relies on passive diffusion, liposome rupture or endocytotic uptake. Achieving drug concentrations within the therapeutic window can thus be challenging, resulting in poor efficacy and higher risks drug resistance. Finding means to modulate lipid membrane integrity and to trigger rapid and efficient release of liposomal cargo is thus critical to improve current and future liposomal drug delivery systems. The overall aim of this thesis work has been to develop new strategies for triggering and controlling changes in lipid membrane integrity and to study the interactions of membrane active peptides with model lipid membranes using both de novo designed and biologically derived synthetic amphipathic cationic peptides. Two different sets of designed peptides have been explored that can fold and heterodimerize into a coiled coil and helix-loop-helix fourhelix bundle, respectively. Conjugation of the cationic lysine rich peptides to liposomes triggered a rapid and concentration dependent release. The additions of their corresponding glutamic acid-rich complementary peptides inhibited the release of liposomal cargo. Possibilities to reduce the inhibitory effect by both proteolytic digestion of the inhibitory peptide and by means of heterodimer exchange have been investigated. Moreover, the effects of peptide size and composition and ability to fold have been studied in order to elucidate the factors that influence the membrane permeabilizing effects of the peptides. In addition, the membrane activity of a two-peptide bacteriocin PLNC8? and PLNC8? has been explored using liposomes as a model system. PLNC8?? are expressed by Lactobacillus plantarum and were shown to display pronounced membrane-partition folding coupling, leading to rapid release of liposome encapsulated carboxyfluorescein. PLNC8?? also kill and suppressed growth of the gram-negative bacteria Porphyromonas gingivalis by efficiently damaging the bacterial membrane. Although membrane active peptides are highly efficient in perturbing lipid membrane integrity, possibilities to trigger release using external stimuli are also of large interest for therapeutic applications. Light-induced heating of liposome encapsulated gold nanoparticles (AuNPs) has been shown by others as a potential strategy to trigger drug release. To facilitate fabrication of thermoplasmonic liposome systems we developed a simple method for synthesis of small AuNPs inside liposomes, using the liposomes as nanoscale reaction vessels. The work presented in this thesis provides new knowledge and techniques for future development of liposome-based drug delivery systems, peptide-based therapeutics and increase our understanding of peptide-lipid interactions.


Liposomes are widely used in drug delivery to improve drug efficacy and to reduce side effects. For liposome-encapsulated drugs to become bioavailable and provide a therapeutic effect they must be released, which typically is a slow process that primarily relies on passive diffusion, liposome rupture or endocytotic uptake. Achieving drug concentrations within the therapeutic window can thus be challenging, resulting in poor efficacy and higher risks drug resistance. Finding means to modulate lipid membrane integrity and to trigger rapid and efficient release of liposomal cargo is thus critical to improve current and future liposomal drug delivery systems. The possibilities to tailor lipid composition and surface functionalization is vital for drug delivery applications but also make liposomes attractive model systems for studies of membrane active biomolecules. The overall aim of this thesis work has been to develop new strategies for triggering and controlling changes in lipid membrane integrity and to study the interactions of membrane active peptides with model lipid membranes using both de novo designed and biologically derived synthetic amphipathic cationic peptides. Two different sets of designed peptides have been explored that can fold and heterodimerize into a coiled coil and helix-loop-helix fourhelix bundle, respectively. Conjugation of the cationic lysine rich peptides to liposomes triggered a rapid and concentration dependent release. The additions of their corresponding glutamic acid-rich complementary peptides inhibited the release of liposomal cargo. Possibilities to reduce the inhibitory effect by both proteolytic digestion of the inhibitory peptide and by means of heterodimer exchange have been investigated. Moreover, the effects of peptide size and composition and ability to fold have been studied in order to elucidate the factors that influence the membrane permeabilizing effects of the peptides. In addition, the membrane activity of a two-peptide bacteriocin PLNC8?
Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors
PLNC8?? are expressed by Lactobacillus plantarum and were shown to display pronounced membrane-partition folding coupling, leading to rapid release of liposome encapsulated carboxyfluorescein. PLNC8?? also kill and suppressed growth of the gram-negative bacteria Porphyromonas gingivalis by efficiently damaging the bacterial membrane. Although membrane active peptides are highly efficient in perturbing lipid membrane integrity, possibilities to trigger release using external stimuli are also of large interest for therapeutic applications. Light-induced heating of liposome encapsulated gold nanoparticles (AuNPs) has been shown by others as a potential strategy to trigger drug release. To facilitate fabrication of thermoplastic membrane systems we developed a simple method for synthesis of small AuNPs inside liposomes, using the liposomes as nanoscale reaction vessels. The work presented in this thesis provides new knowledge and techniques for future development of liposome-based drug delivery systems, peptide-based therapeutics and increase our understanding of peptide-lipid interactions.

Liposomes in Biomedical Applications - P. N. Shek - 1995-08-03
An illustrated reference guide presenting the most current research progress on the exploitation of liposomes for biomedical applications. Over 40 contributors study various aspects of the topic, including: the immunologic applications of liposomes; liposome-mediated drug delivery; and liposomes as red blood cell substitutes. Annotation copyright by Book News, Inc., Portland, OR

Liposomes in Biomedical Applications - P. N. Shek - 1995-08-03
An illustrated reference guide presenting the most current research progress on the exploitation of liposomes for biomedical applications. Over 40 contributors study various aspects of the topic, including: the immunologic applications of liposomes; liposome-mediated drug delivery; and liposomes as red blood cell substitutes. Annotation copyright by Book News, Inc., Portland, OR

Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors - Prashant Kesharwani - 2018-04-20
Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors addresses brain anatomy and tumors and the progress and challenges in delivering drugs across the blood brain barrier. Several chapters are devoted to the latest technologies and advances in nanotechnology, along with practical solutions on how to design more effective nanocarriers for drug and gene delivery. This valuable resource prepares readers to develop novel drug delivery systems for the treatment of brain tumors that further promote the latest nanomedical technologies. Addresses the progress and challenges inherent in delivering drugs across the blood brain barrier and offers strategies to maximize effectiveness Draws upon the experience and expertise of international scientists working in the fields of drug delivery and nanomedicine Considers the future possibilities of nanotechnology for delivering nanocarriers that better diagnose and treat brain tumors

Liposome Technology, Second Edition, is an updated, expanded new edition of a classic volume in the field. It covers all aspects of liposome technology, including liposome preparation and analysis, drug entrapment, and techniques used for in vivo and in vitro evaluation of liposomes. Leading
the standard liposome technology book for the 1990s. Many of the chapters describe methodologies practiced in authors' laboratories and provide specific examples of how these methodologies are applied in specific circumstances. Liposome Technology, Second Edition will be an essential reference volume for academic and industrial researchers in pharmacology, pharmacy, medicine, biochemistry, and immunology. What's new in the 2nd Edition? The 2nd Edition covers significant developments in liposome technology that have occurred since the publication of the 1st Edition in 1982. These developments include the following: New preparative procedures Special approaches to accommodate the incorporation of certain drugs New targeting techniques Large scale production of liposomes, patents, and clinical trials

Liposome Technology, Second Edition, is an updated, expanded new edition of a classic volume in the field. It covers all aspects of liposome technology, including liposome preparation and analysis, drug entrapment, and techniques used for in vivo and in vitro evaluation of liposomes. Leading authorities have contributed 70 chapters to create what is destined to be the standard liposome technology book for the 1990s. Many of the chapters describe methodologies practiced in authors' laboratories and provide specific examples of how these methodologies are applied in specific circumstances. Liposome Technology, Second Edition will be an essential reference volume for academic and industrial researchers in pharmacology, pharmacy, medicine, biochemistry, and immunology. What's new in the 2nd Edition? The 2nd Edition covers significant developments in liposome technology that have occurred since the publication of the 1st Edition in 1982. These developments include the following: New preparative procedures Special approaches to accommodate the incorporation of certain drugs New targeting techniques Large scale production of liposomes, patents, and clinical trials

Lipid Nanoparticles as a Novel Strategy to Deliver Bioactive Molecules - Alan Talevi - 2021-04-13

Liposomes in Gene Delivery - Danilo D. Lasic - 2019-07-23
Many specialists are not familiar with both drug delivery and the molecular biology of DNA vectors. Liposomes in Gene Delivery covers both-molecular biologists will gain a basic knowledge of lipids, liposomes, and other gene delivery vehicles; lipid and drug delivery scientists will better understand DNA, molecular biology, and DNA manipulation. Topics include an introduction to nucleic acids, a theoretical description of DNA, recombinant technology, lipids and liposomes, stability and interaction properties of lipids and liposomes, complexation of lipids and liposomes with DNA plasmids, gene expression of genosomes in various models, structure-activity relationships, and transfection models. This is an excellent introductory text for graduate students, scientists, and researchers in molecular and cell biology, genetics, biochemistry, physical chemistry, colloid science, pharmacology, molecular science, and medicine.

Liposomes in Gene Delivery - Danilo D. Lasic - 2019-07-23
Many specialists are not familiar with both drug delivery and the molecular biology of DNA vectors. Liposomes in Gene Delivery covers both-molecular biologists will gain a basic knowledge of lipids, liposomes, and other gene delivery vehicles; lipid and drug delivery scientists will better understand DNA, molecular biology, and DNA manipulation. Topics include an introduction to nucleic acids, a theoretical description of DNA, recombinant technology, lipids and liposomes, stability and interaction properties of lipids and liposomes, complexation of lipids and liposomes with DNA plasmids, gene expression of genosomes in various models, structure-activity relationships, and transfection models. This is an excellent introductory text for graduate students, scientists, and researchers in molecular and cell biology, genetics, biochemistry, physical chemistry, colloid science, pharmacology, molecular science, and medicine.