Record Nr. UNINA9910616399103321 Peptide Therapeutics: Fundamentals of Design, Development, and **Titolo** Delivery / / edited by Seetharama D. Jois Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2022 **ISBN** 9783031045448 9783031045431 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (321 pages) Collana AAPS Advances in the Pharmaceutical Sciences Series, , 2210-738X ; ; 47 Disciplina 615.19 Soggetti Pharmaceutical chemistry Drug delivery systems Drugs - Design Pharmacology Pharmacy Proteins - Synthesis **Pharmaceutics Drug Delivery** Structure-Based Drug Design Protein Synthesis and Translation Medicaments peptídics Química farmacèutica Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Basic Concepts of Design of Peptide based Therapeutics --Computational Methods in Peptide Based Drug Design -- Synthesis, Purification, and Characterization of Linear and Cyclic Peptides -- Large Scale Synthesis of Peptides, Manufacturing Peptide Therapeutics --Stability of Peptides -- Peptide Delivery Systems -- Liposomes and

> Nanoparticle Formulations for Peptide Delivery -- Delivery of Peptides Across the Blood-brain Barrier (BBB) -- Peptide Therapeutics Regulatory

## Considerations.

## Sommario/riassunto

This book explains how peptide-based drug design works, what steps are needed to develop a peptide-based therapeutic, and challenges in synthesis as well as regulatory issues. It covers the design concept of peptide therapeutics from fundamental principles using structural biology and computational approaches. The chapters are arranged in a linear fashion. A fresh graduate or a scientist who works on small molecules can use this to follow the design and development of peptide therapeutics to use as understanding the basic concepts. Each chapter is written by experts from academia as well as industry. Rather than covering extensive literature, the book provides concepts of design, synthesis, delivery, as well as regulatory affairs and manufacturing of peptides in a systematic way with examples in each case. The book can be used as a reference for a pharmaceutical or biomedical scientist or graduate student who wants to pursue their career in peptide therapeutics. Some chapters will be written as a combination of basic principles and protocol so that scientists can adopt these methods to their research work. The examples provided can be used to perform peptide formulation considerations for the designed peptides. The book has nine chapters, and each chapter can be read as an independent unit on a particular concept.