Nonviral Vectors for Gene Therapy

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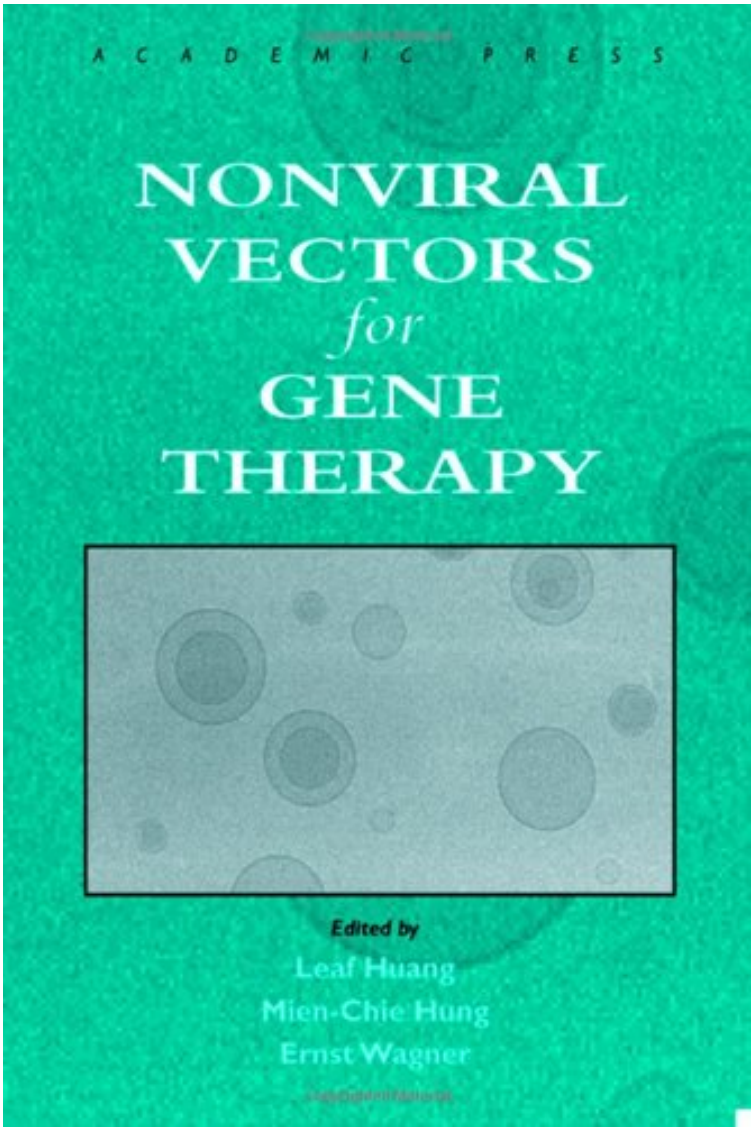

#6124752 in Books 1999-06-21Original language:EnglishPDF # 1 .95 x 6.13 x 9.23l, 1.10 #File Name: 0123584655456 pages | File size: 49.Mb

From Academic Press : Nonviral Vectors for Gene Therapy before purchasing it in order to gage whether or not it would be worth my time, and all praised Nonviral Vectors for Gene Therapy:

Gene transfer within humans has been an obstacle until about 10 years ago. At that time, it was found that viral vectors were effective carriers of "healthy genes" into patients' cells. The problem, however, was that viral vectors proved

unnecessarily harmful to humans: subjects experienced inflamatory activity and negative immunological responses to the genes. Viral vectors were also unable to meet the needs of the pharmaceutical community: they were not reproducible in large-scale proportions in cost-effective ways.Thus, research was undertaken to find a safer way to transfer genes to patients without jeopardizing the safety of the patient. And so non-viral vectors were discovered. This volume presents the various non-viral vectors currently under development. Although not methodologically oriented, it will provide the necessary details behind the development of the vectors. This information will prove useful to both researchers and clinicians. Key Features* Presents state-of-the art developments of nonviral vectors as tools for modern molecular medicine* Covers all types of nonviral vectors, from molecular structure to therapeutic applicationProvides a comprehensive review of synthetic vectors* Includes contributions from major investigators and leading experts in the field

"...Chapters are written by leading experts and recognized authorities in the field, and the editors have done a remarkable job of ensuring that the level of presentation remains constant throughout... The book is well illustrated, and includes several pages of color plates and a functional index... This volume is a succinct, readable introduction to the development and use of nonviral vectors in gene therapy, and should serve to stimulate further research into this field. Its appeal, however, is not limited to those working in gene therapy. It should also be read by molecular biologists and especially cell biologists, whose work on basic cellular mechanisms of uptake and transport are needed to further an understanding of how to design effective vectors for gene therapy."--DOODY'S PUBLISHING REVIEWS (2000)From the Back CoverNonviral vectors are commonly used in human gene therapy trials around the world. Compared to viral vectors, they are safer, more convenient, and less expensive to produce. This book is the first to focus entirely on the nonviral vector. Nonviral Vectors for Gene Therapy covers historical aspects, structure and function, and preclinical and clinical applications of several established nonviral vectors, including cationic liposomes, polymers and peptides, gene gun, and naked DNA. New vectors such as LPD and nanoparticles are also described. This book is a must-read for anyone interested in gene therapy or its potential impact in medicine and biology.Key Features:* Presents state-of-the-art developments of nonviral vectors as tools for modern molecular medicine* Covers all types of nonviral vectors, from molecular structure to therapeutic application* Includes a comprehensive review of synthetic vectors* Provides contributions from the major investigators and leading experts in the field