1.	Record Nr.	UNINA9910595061703321
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	Titolo	Messenger RNA Therapeutics / / edited by Stefan Jurga, Jan Barciszewski
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
	ISBN	3-031-08415-2
	Edizione	[1st ed. 2022.]
	Descrizione fisica	1 online resource (451 pages)
	Collana	RNA Technologies, , 2197-9758 ; ; 13
	Disciplina	615.58
	Soggetti	Medical genetics
		Medicinal chemistry
		Nanomedicine
		Cancer - Treatment
		Medical Genetics
		Medicinal Chemistry
		Nanomedicine and Nanotoxicology
		Cancer Therapy
		Vacunos
		RNA
		Llibres electrònics
	Lingua di pubblicazione	
	Enroto	Materiale a stampa
	Nota di contenuto	The Democratization of RNA Therapeutics Supramolecular Strategies for mRNA Delivery In Vitro-Transcribed mRNAs as a New Generation of Therapeutics in the Dawn of 21st Century: Exploitation of Peptides as Carriers for their Intracellular Delivery Effective Delivery of mRNA Therapeutics and Vaccines Using Lipid Nanoparticles Messenger RNA Therapeutics Formulation, Delivery and Application of mRNA Therapeutics In Respiratory Diseases Clinical Applications of mRNA Formulated In Lipid Nanoparticles Preparation of Messenger RNA Loaded Nanomedicine Applied on Tissue Engineering And Regenerative Medicine Lipid Nanoparticle-Mediated Delivery of mRNA

	Therapeutics: Immune Activation By Ionizable Cationic Lipids Adjuvants, the Elephant in the Room for RNA Vaccines Addressing Skin with Modified mRNA Constructs for Novel Therapies mRNA- Based Cancer Immunotherapies From Bench to Bedside: The Journey of an mRNA Drug Candidate Into a Medicine Synthetic mRNA Gene Therapies for Chronic HBV Infection Delivery Vehicles for Self- Amplifying RNA Delivery Technologies of mRNA Vaccines Nanosystems: The Key in Formulations of mRNA for Several Pathologies Messenger RNA Nanoformulation For Cancer Vaccine Preparation of Synthetic mRNAs for In Vivo Applications Overview and Considerations Messenger RNA for Prophylaxis Nuclear Export of mRNA with Disease Pathogenesis and Therapeutic Potentials Messenger RNA Therapeutics: Start of a New Era in Medicine mRNA Delivery Technologies for Therapeutic Applications.
Sommario/riassunto	This book focuses on the fundamentals and applications of messenger RNA (mRNA)-based therapeutics and discusses the strengths and key challenges of this emerging class of drugs. In the past 30 years, extensive research and technological development in many areas have contributed to the emergence of in vitro transcribed mRNA as a therapeutic that has now reached clinical testing. Formulations that protect the mRNA from nucleases and accelerate its cellular uptake, combined with improvements to the mRNA molecules themselves, have been critical advancements for mRNAs to become viable therapeutics. Though once regarded as a serious impediment, the transient nature of mRNA technology is now considered a major advantage in making mRNA therapies safe and, ultimately, a potential game changer in the field of medicine. This new book in the RNA Technologies series provides a state-of-the-art overview on the emerging field of mRNA therapeutics covering essential strategies for formulation, delivery, and application. It also reviews the promising role in cancer immunotherapy, respiratory diseases, and chronic HBV infection and discusses RNA vaccines in light of the current COVID-19 pandemic. mRNA-based approaches have great potential to revolutionize molecular biology, cell biology, biomedical research, and medicine. Thus, this handbook is an essential resource for researchers in academia and industry contributing to the development of this new area of therapeutics.