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Titolo	DNA pharmaceuticals [[electronic resource]] : formulation and delivery in gene therapy, DNA vaccination and immunotherapy / / edited by Martin Schleef
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2005
ISBN	1-280-85409-X 9786610854097 3-527-60753-6 3-527-60700-5
Descrizione fisica	1 online resource (277 p.)
Altri autori (Persone)	SchleefM (Martin)
Disciplina	615.372 616.0796
Soggetti	DNA vaccines Gene therapy Immunotherapy Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	DNA Pharmaceuticals; Preface; Contents; List of Contributors; Abbreviations; 1 DNA Vaccines - An Overview; 1.1 Rationale for DNA Vaccines; 1.2 Preclinical Proof of Concept; 1.3 Clinical Trials; 1.4 Second-Generation Vaccines; 1.5 Conclusions; References; 2 DNA as a Pharmaceutical - Regulatory Aspects; 2.1 Introduction; 2.2 Quality Requirements for DNA used as a Gene Therapy Product; 2.2.1 Introduction; 2.2.2 Production and Purification; 2.2.2.1 Raw Materials; 2.2.2.2 Antibiotics; 2.2.2.3 Solvents; 2.2.2.4 Fermentation; 2.2.2.5 Purification; 2.2.3 Cell Banking System Procedures 2.2.3.1 Generation and Characterization of Master and Working Cell Banks2.2.4 Product Characterization and Quality Criteria; 2.2.4.1 Identity; 2.2.4.2 Purity; 2.2.4.3 Adventitious Agents; 2.2.4.4 Potency; 2.3 Safety Studies for Clinical Trials; 2.3.1 General Considerations; 2.3.2 Conduct of Preclinical Safety Studies; 2.3.2.1 Regulations; 2.3.2.2 Design of an Appropriate Toxicology Program; 2.3.2.3 Single- and

Repeat-Dose Toxicity Studies; 2.3.2.4 Safety of the Formulated Plasmid DNA; 2.3.2.5 Specific Safety Considerations; 2.3.2.6 Choice of Animal Model; 2.4 Special Issues
2.4.1 Comparability of Plasmid Gene Therapy Products2.4.2 Mixed Plasmid Preparations; 2.4.3 Plasmid Molecular Structure; 2.5 Biosafety Issues and Environmental Risk Assessment; References; 3 From Bulk to Delivery: Plasmid Manufacturing and Storage; 3.1 Introduction; 3.1.1 Gene Therapy; 3.1.2 DNA Vaccination; 3.2 Manufacturing of Plasmid DNA; 3.2.1 Bacterial Cultivation; 3.2.2 Plasmid DNA Purification; 3.2.3 Innovative Aspects in Plasmid Manufacturing; 3.3 Quality Control of Plasmid DNA Vectors; 3.3.1 Proteins, Ribonucleic Acid, and Lipopolysaccharides; 3.3.2 Chromosomal DNA
3.3.3 Plasmid Identity3.3.4 Plasmid Topology (Structural Homogeneity); 3.4 Plasmid Stability during Storage and Application; 3.4.1 Long-Term Stability of Plasmid DNA; 3.4.2 Lyophilization for Long-Term Storage; 3.4.3 Stability during Application; 3.5 Future Developments; References; 4 Minimized, CpG-Depleted, and Methylated DNA Vectors: Towards Perfection in Nonviral Gene Therapy; 4.1 Introduction; 4.2 The Mammalian Immune System as a Barrier to Nonviral Gene Delivery; 4.3 Strategies to Minimize DNA Vectors
4.3.1 Excision of a DNA Fragment Containing a Transgene Expression Cassette from Plasmid DNA4.3.2 Intramolecular Site-Specific Recombination Within a Bacterial Plasmid; 4.3.3 Synthesis of Minimized DNA Vectors by PCR; 4.3.4 Improvement of Minimized DNA Vector Yield and Purity; 4.4 Depletion of CpG Dinucleotides in the Bacterial Vector Backbone; 4.5 Methylation of CpG Dinucleotides in Plasmid DNA; 4.6 Towards an Ideal Nonviral Vector; 4.7 Conclusion; References; 5 Localized Nucleic Acid Delivery: A Discussion of Selected Methods; 5.1 Foreword; 5.2 Nucleic Acid Delivery - What For?
5.3 Nucleic Acid Delivery - How?

Sommario/riassunto

With its focus on a completely novel class of pharmaceuticals, this book collates the hitherto scarce literature about DNA drug formulation keenly desired by biotechnologists, molecular biologists and pharmacists, as well as those working in the biotechnological and pharmaceutical industries.As such, this volume presents a wide range of gene delivery systems needed for different therapeutic applications. It fills the gap between research and clinical trials and describes pharmaceutical fundamentals for the development of efficient DNA pharmaceuticals.

2. Record Nr. UNISA996547952503316

Titolo	Cognitive systems and information processing : 7th International Conference, ICCSIP 2022, Fuzhou, China, December 17-18, 2022, revised selected papers / / Fuchun Sun [and five others], editors
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ISBN	981-9906-17-2
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (661 pages)
Collana	Communications in Computer and Information Science ; ; Volume 1787
Disciplina	006.3
Soggetti	Computational intelligence Intelligent control systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Award -- Multi-Modal Ankle Muscle Strength Training Based on Torque and Angle Sensors -- T3SFNet: A Tuned Topological Temporal-Spatial Fusion Network for Motor Imagery with Rehabilitation Exoskeleton -- Joint Trajectory Generation of Obstacle Avoidance in Tight Space for Robot Manipulator -- Manipulating adaptive analysis and performance test of a negative-pressure actuated adhesive gripper -- Depth Control of a Biomimetic Manta Robot via Reinforcement Learning -- Inchworm-Gecko Inspired Robot with Adhesion State Detection and CPG Control -- Coherence Matrix based Early Infantile Epilepic Encephalopathy Analysis with ResNet -- Constrained Canonical Correlation Analysis for fMRI Analysis Utilizing Experimental Paradigm Information -- Algorithm -- BFAct: Out-of-distribution Detection with Butterworth Filter Rectified Activations -- NKB-S: Network Intrusion Detection Based on SMOTE Sample Generation -- Mastering “Gongzhu” with Self-play Deep Reinforcement Learning -- Improved Vanishing Gradient Problem for Deep Multi-layer Neural Networks -- Incremental Quaternion Random Neural Networks -- Application -- Question Answering on Agricultural Knowledge Graph Based on Multi-label Text Classification -- Dairy Cow Individual Identification System Based on Deep Learning -- Automatic Packaging System Based on Machine Vision -- Meteorological and Hydrological Monitoring Technology Based on Wireless Sensor Network

Model and its Application -- A Review of Deep Reinforcement Learning Exploration Methods: Prospects and Challenges for Application to Robot Attitude Control Tasks -- AeroBotSim: A High-photo-fidelity Simulator for Heterogeneous Aerial Systems under Physical Interaction -- Trailer Tag Hitch: an Automatic Reverse Hanging System Using Fiducial Markers -- Anatomical and Vision-guided Path Generation Method for Nasopharyngeal Swabs Sampling -- A Hierarchical Model for Dynamic Simulation of the Fault in Satellite Operations -- Manipulation & Control -- Design and Implementation of Autonomous Navigation System Based on Tracked Mobile Robot -- Towards Flying Carpet: Dynamics Modeling, and Differential-flatness-based Control and Planning -- Towards Flying Carpet: Dynamics Modeling, and Differential-flatness-based Control and Planning -- Region Clustering for Mobile Robot Autonomous Exploration in Unknown Environment -- Human Intention Understanding and Trajectory Planning Based on Multi-modal Data -- Robotic Arm Movement Primitives Assembly Planning Method based on BT and DMP -- Center-of-Mass-based Regrasping of Unknown Objects Using Reinforcement Learning and Tactile Sensing -- Alongshore Circumnavigating Control of a Manta Robot Based on Fuzzy Control and an Obstacle Avoidance Strategy -- Robot Calligraphy Based on Footprint Model and Brush Trajectory Extraction -- Hierarchical Knowledge Representation of Complex Tasks Based on Dynamic Motion Primitives -- Saturation Function and Rule Library-Based Control Strategy for Obstacle Avoidance of Robot Manta -- Perception-aware Motion Control of Multiple Aerial Vehicle Transportation Systems -- NSGA-II Optimization-based CPG Phase Transition Control Method of Manta Ray Robot -- Hardware -- High Resolution Multi-indicator MIM Nano-Sensor Based on Aperture-Coupled Asymmetric Square Resonator -- Rigid-flexible Coupled Soft Gripper with Treble Modular Fingers -- Ecofriendly Soft Material-based Sensors Capable of Monitoring Health -- Teleoperation of a Dexterous Hand using a Wearable Hand -- Vision -- A Cuboid Volume Measuring Method Based on a Single RGB Image -- Surface Defect Detection of Electronic Components Based on FaSB R-CNN -- A LED Module Number Detection for LED Screen Calibration -- Estimating the Pose of Irregular Surface Contact Based on Multi-collider Collision Information and Nonlinear Neural Network in Virtual Environment -- Vision-Tactile Fusion Based Detection of Deformation and Slippage of Deformable Objects During Grasping -- A MobileNet Based Model for Tongue Shape Classification -- A 3D Point Cloud Object detection Algorithm Based on MSCS-Pointpillars -- Polar Grid Based Point Cloud Ground Segmentation -- High-precision Localization of Mobile Robot Based on Particle Filters Combined with Triangle Matching.

Sommario/riassunto

This book constitutes the refereed proceedings of the 7th International Conference on Cognitive Systems and Information Processing, ICCSIP 2022, held in Fuzhou, China, during November 18–20, 2022. The 47 papers included in this book were carefully reviewed and selected from 121 submissions. They were organized in the following topical sections as follows: Award; Algorithm; Application; Manipulation & Control; Hardware and Vision.