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Collana	Medical Virology: From Pathogenesis to Disease Control, , 2662-9828
Altri autori (Persone)	BasuMalini
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Nota di contenuto	Part 1 COVID-19 Pandemic: Pathogenesis, Inflammation, and Biology -- Ch 1 The COVID-19 Outbreak -- Ch 2 Pathogenesis and Biology of SARS-CoV-2 -- Ch 3 COVID-19: Modulation of Host's Genetic and Epigenetic Machineries -- Ch 4 SARS-CoV-2 Mutants and Variants of Interest -- Part 2 COVID-19: Diagnosis and Development of Diagnostics -- Ch 5 Imaging-Based COVID-19 Diagnosis -- Ch 6 Nucleic Acid Amplification Testing (NAAT) based COVID-19 Kits -- Ch 7 Immunological Assay Based COVID-19 Detection -- Ch 8 Variant-

Specific Diagnosis of COVID-19 -- Part 3 COVID-19: Immunological Perspectives -- Ch 9 Cytokine Storm, Inflammation, and Immunity in COVID-19 -- Ch 10 COVID-19: Modulation of Signaling Pathways -- Ch 11 Immunological Persistence and Risk of SARS-CoV-2 Re-infection: Insights and Implications -- Ch 12 Plasma Therapy in COVID-19 -- Part 4 COVID-19 Drug Repurposing: Mode of Action, Clinical Trials, and Future Perspectives -- Ch 13 Repurposing of Anti-viral Agents in COVID-19 -- Ch 14 Role of Anti-inflammatory Agents in the Management of COVID-19 -- Ch 15 Application of Anti-platelet Drugs and Anti-coagulants in COVID-19 -- Ch 16 COVID-19: Target-Based Drug Discovery -- Part 5 COVID-19: Vaccine Development and Vaccination -- Ch 17 COVID-19: Vaccine Classification and their Clinical Status -- Ch 18 SARS-CoV-2: A Comprehensive Insight into DNA, RNA, Subunit, and Viral Vaccines -- Ch 19 COVID-19 Vaccination in Medically Distinct Population -- Part 6 COVID-19 Associated Comorbidities, Economic and Societal Impact -- Ch 20 Neurological damages in COVID-19 patients -- Ch 21 COVID-19 Comorbidities in Cancer -- Ch 22 Interplay of COVID-19 with Tuberculosis and Pneumonia: Challenges and Treatment -- Ch 23 Economic Consequences of the COVID-19 Pandemic -- Ch 24 COVID-19 Pandemic and Its Societal Impact: A Philosophical/Theoretical Perspective in Human Quantum Mechanics -- Ch 25 Unravelling the Global Economic Impact: A Region and Sector-wise Post-COVID Analysis -- Ch 26 Navigating Long COVID: Comorbidities and the Global Societal Impact.

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#### Sommario/riassunto

This book provides up-to-date insights into the COVID-19 disease, addressing its outbreak, pathogenesis, biology, treatment interventions, and consequences as a global health crisis. Divided into six sections, the book covers a detailed examination of various facets of the disease. Section I delves into the host's genetic and epigenetic mechanisms in response to COVID-19. Section II focuses on disease diagnosis, providing valuable perspectives on kits, nucleic acid testing, immunological assays, imaging-based diagnosis, and variant-specific SARS-COV-2 detection. Section III covers cytokine storm, inflammation, and immunity, including the modulation of signaling pathways leading to immune evasion and persistence. Section IV reveals drug repurposing, exploring antiviral, anti-inflammatory, anti-platelet drugs, and target-based drug discovery. Section V explains the evolution of vaccine development including DNA, RNA, subunit, and viral vaccines. Finally, Section VI explores COVID-19's impact on associated comorbidities, ranging from cancer and cardiac issues to neurological damages and economic consequences. The book is relevant for scientists, and researchers working on pathogenesis, development, implementation, host-pathogen interactions, and drug repurposing of COVID-19 disease.

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