Record Nr. UNINA9910784595603321 Respiratory syncytial virus [[electronic resource] /] / editor, Patricia **Titolo** Cane Pubbl/distr/stampa Amsterdam; ; London, : Elsevier, 2006 **ISBN** 1-280-72919-8 9786610729197 0-08-046669-9 Descrizione fisica 1 online resource (349 p.) Collana Perspectives in medical virology, , 0168-7069;; v. 14 Altri autori (Persone) CanePatricia Disciplina 616.20019 Soggetti Respiratory organs - Diseases Respiratory syncytial virus 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 Cover; Respiratory Syncytial Virus; Copyright Page; Contents; Preface; Molecular Biology of Human Respiratory Syncytial Virus; Introduction; The virion; The infectious cycle; Experimental systems to study the replicative cycle of HRSV; Virus entry; Transcription and replication of the viral genome; Virus assembly; Virus-host cell interactions; Acknowledgements; References; Immunology of RSV; The innate immune response; The adaptive immune response; Conclusions; References: Molecular Epidemiology and Evolution of RSV: Introduction: RSV groups and genotypes; Structure of epidemics Geographic distribution of RSV strainsThe G protein; Evolution of RSV; Emergence of new lineages; Disappearance of lineages; Mechanism of selection of new strains; Paradox; Reinfection with RSV; Conclusions; References; Genetic Susceptibility to RSV Disease; Epidemiological

evidence of genetic susceptibility to RSV infection in infancy; Evidence that the host response rather than the virus is responsible for disease;

References; RSV Infection in Elderly Adults: Introduction; Epidemiology;

Requirements for effective genetic association studies; Genetic association studies of RSV bronchiolitis; Other studies; General

Pathogenesis of RSV in ChildrenIntroduction; Viral infection and cytotoxicity; The immune response to infection; Conclusion;

comments; The future; References

Clinical manifestations and complications of RSV infection in elderly adults; Diagnosis of RSV infection; Treatment of RSV infection; Prevention of RSV infection; Conclusions; References; Respiratory Syncytial Virus Disease Burden in the Developing World; Introduction; Methods, definitions, limitations; Denominator-based data on incidence: Associated mortality

Disease-causing agent or benign co-infectionRisk factors for RSV infection; Additional burdens of disease; Temporal dynamics of RSV: Where and how does it persist; Conclusions and future research needs; Abbreviations; References; Vaccines against Human Respiratory Syncytial Virus; Introduction: the burden of disease and the need for a vaccine; Considerations in developing an RSV vaccine; Formalininactivated RSV (FI-RSV); Subunit vaccines; Live-attenuated RSV strains; Live-vectored RSV vaccines; DNA vaccines; Perspective; Acknowledgment; References

Development of Antivirals against Respiratory Syncytial VirusIntroduction; Slow progress; Vaccines versus antivirals; Brief history of RSV antiviral development; Modern approaches to antiviral discovery; Models of RSV disease; Alternative model of human RSV in tissue culture; Clinical trials of RSV agents; Drugs in development; Miscellaneous (unknown) mechanisms; Inhibiting host cell functions; Antisense compounds and siRNA; Future prospects; Acknowledgements; References; Pneumonia Virus of Mice; The natural history of PVM; Characteristics of the PVM virion; The molecular biology of PVM

**PVM** proteins

## Sommario/riassunto

Respiratory syncytial virus (RSV) was first identified half a century ago in 1956. Following its discovery, the virus soon became recognised as a major viral pathogen causing extensive outbreaks of respiratory tract infections in both the very young and in vulnerable adults. It is an unusual virus in that it can cause repeated reinfections throughout life. The topics covered within this volume are wide ranging in scope from the most basic molecular biology of the virus to the clinical picture of RSV in the developing world. The internationally recognised experts were invited not only to revi