Record Nr. UNINA9910437826303321 Intrinsic immunity / / Bryan R. Cullen, editor; responsible series editor, **Titolo** Peter K. Vogt Pubbl/distr/stampa Heidelberg;; New York,: Springer, c2013 **ISBN** 3-642-37765-3 Edizione [1st ed. 2013.] 1 online resource (264 p.) Descrizione fisica Collana Current topics in microbiology and immunology, , 0070-217X;; v. 371 Altri autori (Persone) CullenBryan R VogtPeter K Disciplina 571.9/648 616.079 Soggetti **Immunity** 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 The APOBEC3 Family of Retroelement Restriction Factors -- Inhibition of Retroviral Replication by Members of the TRIM Protein Family -- The Antiviral Activities of Tetherin -- Restriction of Retroviral Infection of Macrophages -- Rapid Adversarial Co-Evolution of Viruses and Cellular Restriction Factors -- RNA Interference-Mediated Intrinsic Antiviral Immunity in Plants -- RNA Interference-Mediated Intrinsic Antiviral Immunity in Invertebrates -- Roles of MicroRNAs in the Life Cycles of Mammalian Viruses -- Interplay Between DNA Tumor Viruses and the Host DNA Damage Response. Sommario/riassunto Recent research has focused attention on the importance of intrinsic antiviral immunity, i.e. immunity mediated by factors that are constitutively expressed in many cells. In this volume, leading experts provide a comprehensive overview of this relatively new and rapidly evolving field. They cover intrinsic proteinaceous antiviral immune effectors, such as the APOBEC3 and TRIM protein families as well as Tetherin and SAMHD1, which were initially discovered by researchers studying HIV-1. Furthermore, the role of RNA interference in antiviral defense in plants and invertebrates, as well as the interplay between microRNAs and viruses in mammalian cells, are analysed. One chapter

discusses how intrinsic immunity and viral countermeasures to intrinsic immune effectors drive both pathogen and host evolution, and finally

the emerging evidence that DNA damage response proteins restrict infection by DNA viruses is highlighted. .