Record Nr. UNINA9910777302703321 Immunoinformatics [[electronic resource] /] / edited by Christian **Titolo** Schonbach, Shoba Ranganathan, and Vladimir Brusic Pubbl/distr/stampa New York, : Springer, c2008 **ISBN** 1-281-13356-6 9786611133566 0-387-72968-2 Edizione [1st ed. 2008.] Descrizione fisica 1 online resource (221 p.) Collana Immunomics reviews BrusicVladimir Altri autori (Persone) RanganathanShoba SchonbachChristian Disciplina 571.96 Soggetti **Immunoinformatics Immunology** 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 IMGT-ONTOLOGY, IMGT® Databases, Tools, and Web Resources for Immunoinformatics -- IMGT Standardization for Molecular Characterization of the T-cell Receptor/Peptide/MHC Complexes --Structural Immunoinformatics -- In Silico QSAR-Based Predictions of Class I and Class II MHC Epitopes -- Allergen Bioinformatics --Immunoinformatics Applied to Modifying and Improving Biological Therapeutics -- Plasticity of Dendritic Cell Transcriptional Responses to Antigen: Functional States of Dendritic Cells -- Understanding the Immune System by Computer-Aided Modeling -- Simulation of HIV-1 Molecular Evolution in Response to Chemokine Coreceptors and Antibodies -- MUTANT MOUSE: bona fide Biosimulator for the Functional Annotation of Gene and Genome Networks. Sommario/riassunto Immunomics Reviews An Official Publication of the International Immunomics Society Series Editors: Vladimir Brusic, Dana-Farber Cancer Institute, Boston, Massachusetts Andras Falus, Semmelweis University, Budapest, Hungary Editorial Board: Anne S. De Groot, Brown University, Providence, Rhode Island Darren Flower, Edward Jenner

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Nanyang Technological University, Singapore Shoba Ranganathan, Macquarie University, Australia Marie-Paule Lefranc Universite Montpellier II, Montpellier, France This peer-reviewed book series offers insight on immunology for 21st century. The technological revolution has borne advances in high-throughput instrumentation and information technology, initiating a renaissance for biomathematics, and biostatistics. Cross-fertilization between genomics and immunology has led to a new field called immunomics, transforming the way in which theoretical, clinical and applied immunology are practiced. Immunomics Reviews will cover integrative approaches and applications to the theory and practice of immunology and explore synergistic effects resulting from a combination of technological advances and the latest analytical tools with the traditional fields of basic and clinical immunology. Volume 1: Immunoinformatics Edited by Christian Schönbach Immunoinformatics is an emerging subdiscipline of bioinformatics. It utilizes mathematics, information science, computer engineering, genomics, proteomics and immunological methods to bridge immunology and informatics. Similar to bioionformatics which became a driving force in genome research, immunoinformatics enables data-driven research strategies and systems approaches that aim at understanding the networks regulating the immune system. Considering the breath of topic, Immunoinformatics was composed to provide a cross-section of research ranging from data integration, epitope predictions to systems level applications. In ten chapters experts in the field introduce and discuss research strategies for immunologists and bioinformaticians who wish to endeavour existing and new approaches to gain insight into the workings of the immune system.