

1. Record Nr.	UNINA9910574060003321
Autore	Carlberg Carsten
Titolo	Molecular Immunology : How Science Works / / by Carsten Carlberg, Eunike Velleuer
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783031040252 3031040252
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (228 pages)
Disciplina	616.079
Soggetti	Immunology Autoimmunity Inflammation Immunogenetics Tumors - Immunological aspects Translational Immunology Tumour Immunology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Cells and tissues of the immune system -- 2 Innate immunity and inflammation -- 3 Adaptive immunity and antigen receptor diversity -- 4 B cell immunity: BCRs, antibodies and their effector functions -- 5 Antigen-presenting cells and the major histocompatibility complex -- 6 T cell immunity: TCRs and their effector functions -- 7 Immunity to bacterial pathogens and the microbiome -- 8 Immunity to viral pathogens and the virome -- 9 Tolerance and transplantation immunology -- 10 Immunological hypersensitivities: Allergy and autoimmunity -- 11 Cancer immunology.
Sommario/riassunto	This textbook aims to describe in a condensed form the essentials of molecular immunology behind bacterial infections, the microbiome, viral infections (such as influenza and COVID-19), organ transplantations, autoimmunity, allergy and tumor immunology. The book emphasizes the impact of immunology in maintaining our health and preventing disease. Our immune system protects us not only from

severe consequences of infectious diseases and getting cancer, but is also able to harm us severely via sepsis, cytokine storms and anaphylactic shocks. Molecular understanding of immunology should allow the reader a more rational handling of common diseases, most of which are associated with chronic inflammation.

---