

1. Record Nr.	UNINA9910561300603321
Autore	Mandal Santi M.
Titolo	Automation and Basic Techniques in Medical Microbiology // by Santi M. Mandal, Debarati Paul
Pubbl/distr/stampa	New York, NY : , : Springer US : , : Imprint : Springer, , 2022
ISBN	1-0716-2372-9
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (213 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	616.9041
Soggetti	Medical microbiology Biotechnology Immunology Medical genetics Medical Microbiology Medical Genetics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1: Good laboratory Practices -- Chapter 2: Automation in medical microbiology -- Chapter 3: Manual and automated characterization of Multi-antibiotic-resistant (MAR) bacteria -- Chapter 4: Rapid microbial genome sequencing techniques and applications -- Chapter 5: SPECTROSCOPY - Principle, Types and Microbiological Applications -- Chapter 6: MALDI- TOF for bacterial identification -- Chapter 7: Enzyme-Linked Immunosorbent Assay (ELISA) -- Chapter 8: Isolation of normal microbiota from human body and microbial identification -- Chapter 9: Microarrays and its application in medical microbiology -- Chapter 10: Immunotechnology -- Chapter 11: Advances in Microscopy.
Sommario/riassunto	This book discusses principles, methodology, and applications of microbiological laboratory techniques . It lays special emphasis on the use of various automated machines that are essential for medical microbiology and diagnostic labs. The book contains eleven major chapters. The first chapter describes the good lab practices which should be followed by the students in all biological, chemistry or microbiology laboratories. The next chapter describes manual and

automated characterization of antibiotic resistant microbes, followed by a chapter on genomics based tools and techniques that are integral to research. Further chapters deal with other important techniques like immunology based techniques, spectrophotometry and its various types, MALDI-TOFF and microarrays, each with illustrations and detailed description of the protocols and applications. The book also gives certain important guidelines to the students about the planning the experiment and interpreting results. The book is highly informative and provides latest techniques. It is a handy compendium for graduate and post graduate students, as well as more advanced researchers.
