Record Nr. UNINA9910483215403321 Nanotechnology for Advances in Medical Microbiology [[electronic **Titolo** resource] /] / edited by Naga Raju Maddela, Sagnik Chakraborty, Ram Prasad Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2021 Pubbl/distr/stampa **ISBN** 981-15-9916-5 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (432 pages): illustrations Environmental and Microbial Biotechnology, , 2662-169X Collana 343.430786606 Disciplina Soggetti Microbiology Biotechnology Food science Microbiology—Technique Food Science Microbiology Techniques Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1 Green synthesized nanoparticles as a promising strategy for controlling microbial biofilm -- 2 Visual health nanocomposites: present and future -- 3 Applications of Nanomaterials in Biomedical Engineering -- 4 Nanofibers in Medical Microbiology -- 5 Extraction of silver nanoparticles (Ag-NPs) by green synthesis from aqueous extract of seaweeds and their consequences on Hela cell line and their utility on soil by spectroscopic tools -- 6 Epidemiology of COVID- 19; Special emphasis on Nanoscience and it's implications -- 7 Surface-modified noble metal nanoparticles as antimicrobial agents: biochemical, molecular and therapeutic perspectives -- 8 Nanomaterials for Advanced Microbiology -- 9 Nanoparticles for Biofilm Control -- 10 Significance of nanoscience in food microbiology: current trend and future prospects -- 11 Nanotechnology in Microbiology -- 12 Holistic approaches for enhanced production of Prodigiosin- a natural biocolour -- 13 Applications of Nanomaterials for Water Disinfection --

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biomedical applications -- 16 Nanotechnology-A New Frontier in Medical Microbiology -- 17 Chitosan nanoparticles: An overview on preparation, characterization and biomedical applications.

Combined fields of Microbiology and Nanotechnology have been most successful in providing novel solutions for protecting the health of humans and environment. This book covers the implications of nanostrategies to combat bacterial pathogens, applications of nanotechniques in microbiology, and innovative advances in the area of medical microbiology. Contents are divided into three sections -- Nanoscience in controlling bacterial pathogens, Nanoscience in Microbiology, Medical Microbiology. This volume is going to provide timely information about the technological advances of Nanoscience in the domain of Microbiology, with a special emphasis on Pathobiology. The book is a useful read for students and researchers in microbiology, nanotechnology and medical microbiology.