1. Record Nr. UNINA9910298319703321

Titolo	Antibiofilm Agents : From Diagnosis to Treatment and Prevention / / edited by Kendra P. Rumbaugh, Iqbal Ahmad
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2014
ISBN	3-642-53833-9
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (495 p.)
Collana	Springer Series on Biofilms, , 1863-9607 ; ; 8
Disciplina	616.9041
Soggetti	Microbiology Medical microbiology Infectious diseases Medical Microbiology Infectious Diseases
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 at the end of each chapters and index.
Nota di contenuto	Part I: Medical Biofilms -- Biofilms in Disease -- The Use of DNA Methods to Characterize Biofilm Infection -- Imaging Biofilms in Tissue Specimens -- Mechanisms of Drug Resistance in Fungi and Their Significance in Biofilms -- Horizontal Gene Transfer in Planktonic and Biofilm Modes -- The Role of Quorum Sensing in Biofilm Development -- Part II: Strategies for Biofilm Control -- Current and Emergent Control Strategies for Medical Biofilms -- The Effect of Plasmids and Other Biomolecules on the Effectiveness of Antibiofilm Agents -- Antimicrobial Coatings to Prevent Biofilm Formation on Medical Devices -- Medicinal Plants and Phytocompounds: A Potential Source of Novel Antibiofilm Agents -- Staphylococcus Aureus Biofilm Formation and Inhibition -- Novel Targets for Treatment Of Pseudomonas Aeruginosa Biofilms -- Inhibition of Fungal Biofilms -- Biofilm Control Strategies in Dental Health -- Inhibition of Polymicrobial Biofilms: Recent Trends -- Antibiofilm Strategies in the Food Industry -- Part III: The Future of Antibiofilm Agents -- Biofilm Inhibition by Nanoparticles -- Drug Delivery Systems That Eradicate and/or Prevent Biofilm Formation -- Eradication of Wound Biofilms by Electrical Stimulation -- The Effects of

	Photodynamic Therapy in Oral Biofilms -- Clinical and Regulatory Development of Antibiofilm Drugs: The Need, The Potential and The Challenges.
Sommario/riassunto	This book provides a survey of recent advances in the development of antibiofilm agents for clinical and environmental applications. The fact that microbes exist in structured communities called biofilms has slowly become accepted within the medical community. We now know that over 80% of all infectious diseases are biofilm-related; however, significant challenges still lie in our ability to diagnose and treat these extremely recalcitrant infections. Written by experts from around the globe, this book offers a valuable resource for medical professionals seeking to treat biofilm-related disease, academic and industry researchers interested in drug discovery, and instructors who teach courses on microbial pathogenesis and medical microbiology.