1. Record Nr. UNINA9910672447203321

Titolo	Vibrio spp. Infections / / edited by Salvador Almagro-Moreno, Stefan Pukatzki
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-22997-5
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (356 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1404
Disciplina	579.17 579.35
Soggetti	Microbiology Diseases - Causes and theories of causation Microbial ecology Bacteria Epidemiology Pathogenesis Environmental Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. Vibrio Infections and the Twenty-First Century -- Chapter 2. New Insights into Vibrio Cholerae Biofilms from Molecular Biophysics to Microbial Ecology -- Chapter 3. Type VI Secretion Systems: Environmental and Intra-Host Competition of Vibrio cholerae -- Chapter 4. Motility Control as a Possible Link Between Quorum Sensing to Surface Attachment in Vibrio Species -- Chapter 5. The Vibrio Polar Flagellum: Structure and Regulation -- Chapter 6. Environmental Reservoirs of Pathogenic Vibrio Spp. and Their Role in Disease: The List Keeps Expanding -- Chapter 7. Cholera Dynamics and the Emergence of Pandemic Vibrio cholerae -- Chapter 8. Role of Bacteriophages in the Evolution of Pathogenic Vibrios and Lessons for Phage Therapy -- Chapter 9. Vibrio vulnificus, an Underestimated Zoonotic Pathogen -- Chapter 10. The Role of Nutrients and Nutritional Signals in the Pathogenesis of Vibrio cholerae -- Chapter 11. Stress Responses in Pathogenic Vibrios and Their Role in Host and Environmental Survival

-- Chapter 12. Vibrio parahaemolyticus Epidemiology and Pathogenesis: Novel Insights on an Emerging Foodborne Pathogen -- Chapter 13. The Viable but Non-Culturable (VBNC) State in Vibrio Species: Why Studying the VBNC State Now, Is More Exciting than Ever -- Chapter 14. Structural Insights into Regulation of Vibrio Virulence Gene Networks -- Chapter 15. When Vibrios Take Flight: A Meta-Analysis of Pathogenic Vibrio Species in Wild and Domestic Birds -- Chapter 16. What Whole Genome Sequencing Has Told Us About Pathogenic Vibrios.

Sommario/riassunto

This book addresses current topics on pathogenic Vibrio spp. from a comprehensive and holistic perspective. Here, experts in the field provide timely chapters, ranging from genomics, pathogen emergence, and epidemiology to pathogenesis, virulence regulation and host colonization. Questions addressed include: How does climate change affect the spread of these bacteria? What is the status of current vaccines? Are there novel therapeutic options to treat Vibrio infections? Is there likelihood of emergence of new pathogenic strains or species? Can insights from mathematical models and epidemiology lead to prediction of pathogen outbreaks? Recent decades have seen a steady increase in Vibrio spp. infections originating in aquatic and marine habitats, driven by higher human population densities, warming of polluted oceans, natural and human-made disasters, and mass seafood production. These conditions increase the likelihood of pathogenic Vibrio spp. coming into contact with humans, making their study even more timely and relevant as these problems escalate over time. This book is a valuable resource for health management professionals, experienced microbiologists/ microbial ecologists, and early career scientists alike who want to learn more about these important environmental human pathogens. The ideas and technologies presented in this book for preventing, controlling, and monitoring Vibrio spp. infections contribute to the UN Sustainable Development Goal 3: Good Health and Well-Being. .