

Volume Preface

This volume addresses two of the principle subject areas that must be considered as we research the goal of eliminating infectious diseases, those are blocking environmental transmission and understanding the ecological perspective of pathogens and their pathogenic processes. The first section of the book addresses environmental transmission and contains chapters that discuss the procedures used to assure microbiological safety of space flight habitats, a review of biocides and biocide resistance mechanisms, plus health and safety requirements for preventing aerosol related transmission of infections within health care treatment facilities. The second section of the book contains chapters which offer insight regarding ecological aspects of infectious disease. These ecological insights introduce us to the role of indigenous gut microbiota in maintaining human health; present discussion on environmentally encountered bacterial and fungal pathogens associated with soil and water including those species which variously cause the necrotizing skin disease Buruli ulcer and coccidioidomycosis; and consider influenza A virus as an example for understanding how zoonoses, those infectious illnesses typically affecting other animals, spillover into human populations.

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Disease

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