This comprehensive volume focuses on molecular methods and principles of prokaryotic and eukaryotic pathogens. The authors present the molecular and cellular aspects by focusing on the interactions between pathogenic microorganisms and their hosts. The publication begins with an overview of the most important and dangerous causative agents of infectious diseases. Next are discussions of how microbial "weapons," pathogenicity factors, protein secretion machines, and surface variation systems work, presenting the molecular and genetic methods that are used by scientists for their discovery and analysis. Furthermore, infectious diseases are discussed in light of the newly formed research areas of evolutionary and cellular microbiology and genomics. Future aspects on diagnostic techniques, therapy, and vaccine development are also presented.

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