INFECTIOUS DISEASE™

VASSIL ST. GEORGIEV, *Series Editor*

Pathogen Genomics

Impact on Human Health

Edited by

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Genome sequencing and analysis have yielded a rich harvest of fundamental information about pathogenesis and have raised significant new possibilities for effective therapeutic intervention. In *Pathogen Genomics: Impact on Human Health*, a panel of leading infectious disease researchers and pharmaceutical scientists comprehensively review the latest genomic technologies and their application to infectious disease prevention, diagnosis, and treatment. The authors' cross-disciplinary approach—with expertise acquired from studying disease-causing viruses, bacteria, fungi, and protozoa—reveals how sequence information from diverse pathogens has uncovered novel targets for drug discovery, antigenic determinants for vaccine development, as well as diagnostic tools. The authors also discuss the application of DNA microarrays and the impact of genome sequencing comparisons to the discovery and choices of novel drug targets. The result is a better understanding of how these tools can be used to explore the fundamentals of microbial pathogenesis, as well as how pathogens interact with each other and with their host environments.

Broad-ranging and illuminating, *Pathogen Genomics: Impact on Human Health* offers today's infectious disease specialists an authoritative analysis of the new genomic technologies and their productive application to drug discovery, vaccine development, and diagnostics.

Features

- Shows how genomic technologies are being used to study major human pathogens
- Explains new opportunities for drug discovery, vaccine development, and diagnostics
- Discusses new insights into host/pathogen interactions, pathogenesis, and virulence determinants
- Covers the genomics of infectious viruses, bacteria, fungi, and protozoa

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