Pathogenic *Neisseria*

Genomics, Molecular Biology and Disease Intervention

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The human pathogens, *Neisseria meningitidis* and *Neisseria gonorrhoeae* are exquisitely adapted to life within the human mucosa, their only natural niche. *N. meningitidis* is the causative agent of rapidly transmissible meningitis and septic shock. Vaccines developed to control this pathogen can be rendered ineffective by the pathogen's ability to undergo antigenic variation. In contrast, there are no current vaccination prospects for *N. gonorrhoeae*, the causative agent of sexually transmitted gonorrhoea. Historically infections caused by *N. gonorrhoeae* were treated with antibiotics. However the recent advent of new strains with resistance to all known antibiotics is causing such treatment regimes to fail, necessitating the need for new and more effective control strategies.

In this book leading *Neisseria* authorities review the most important research on pathogenic *Neisseria* to provide a timely overview of the field. Topics covered include: the link between pathogenesis and important metabolic pathways; vaccine development; antibiotic resistance; transcriptomics of regulatory networks; regulatory small RNAs; interactions with neutrophils; and advances in humanized mouse models. An essential guide for research scientists, advanced students, clinicians and other professionals working with *Neisseria*, this book is a recommended text for all microbiology libraries.

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