

Pseudomonas

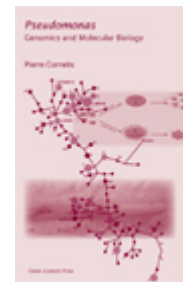
Genomics and Molecular Biology

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The bacterial genus *Pseudomonas* includes the opportunistic human pathogen *P. aeruginosa*, plant pathogenic bacteria, plant beneficial bacteria, ubiquitous soil bacteria with bioremediation capabilities and other species that cause spoilage of milk and dairy products. *P. aeruginosa* can cause chronic opportunistic infections that have become increasingly apparent in immunocompromised patients and the ageing population of industrialised societies.

The genome sequences of several pseudomonads have become available in recent years and researchers are beginning to use the data to make new discoveries about this bacterium. This concise volume reviews the most current and topical aspects of *Pseudomonas* molecular biology and genomics and is aimed at a readership of research scientists, graduate students and other specialists. Renowned international authors have contributed chapters on diverse topics including taxonomy, genome diversity, oligonucleotide usage, polysaccharides, pathogenesis, virulence, biofilms, antibiotic resistance and iron uptake. In addition an entire chapter is devoted to the genetic tools being developed to take full advantage of the wealth of information generated by the genome sequencing efforts. This book is essential reading for anyone involved in *Pseudomonas* research.

Chapter 1. The Road to the Taxonomy of *Pseudomonas*. *Norberto J. Palleroni*

Chapter 2. Genome Diversity of *Pseudomonas aeruginosa*. *Jens Klockgether, Dieco Würdemann, Lutz Wiehlmann, Tim T. Binnewies, David W. Ussery and Burkhard Tümmler*

Chapter 3. Oligonucleotide Usage Signatures of the *Pseudomonas putida* KT2440 Genome. *Oleg Reva and Burkhard Tümmler*

Chapter 4. Genetic Tools for *Pseudomonas*. *Kyoung-Hee Choi, Lily A. Trunck, Ayush Kumar, Takehiko Mima, RoxAnn R. Karkhoff-Schweizer and Herbert P. Schweizer*

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Chapter 7. *Pseudomonas aeruginosa* Biofilms: Impact of Small Colony Variants on Chronic Persistent Infections. *Susanne Häußler*

Chapter 8. Antibiotic Resistance in *Pseudomonas*. *Alicia Fajardo and José L. Martínez*

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