

Pseudomonas

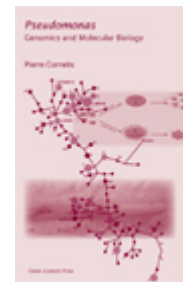
Genomics and Molecular Biology

Edited by: **Pierre Cornelis**
Vrije Universiteit Brussel, Belgium

Published: January 2008. **Pages:** x + 244

Hardback: ISBN 978-1-904455-19-6 £159, \$319

Published by: Caister Academic Press www.caister.com



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*

Chapter 5. Molecular Biology of Cell-Surface Polysaccharides in *Pseudomonas aeruginosa*: From Gene to Protein Function. *Wayne L. Miller and Joseph S. Lam*

Chapter 6. *Pseudomonas aeruginosa* Virulence and Pathogenesis Issues. *Victoria E. Wagner, Melanie J. Filiatrault, Kristin F. Picardo and Barbara H. Iglewski*

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*

Chapter 9. Iron uptake in *Pseudomonas*. *Pierre Cornelis, Christine Baysse and Sandra Matthijs*

Order from:

Caister Academic Press, c/o Book Systems Plus <http://www.caister.com/order>

☞ **MALDI-TOF Mass Spectrometry in Microbiology**

Edited by: Markus Kostrzewa and Sören Schubert (Published: 2016)

☞ ***Aspergillus* and *Penicillium* in the Post-genomic Era**

Edited by: Ronald P. de Vries, Isabelle Benoit Gelber and Mikael Rørdam Andersen (Published: 2016)

☞ **The Bacteriocins: Current Knowledge and Future Prospects**

Edited by: Robert L. Dorit, Sandra M. Roy and Margaret A. Riley (Published: 2016)

☞ **Omics in Plant Disease Resistance**

Edited by: Vijai Bhaduria (Published: 2016)

☞ **Acidophiles: Life in Extremely Acidic Environments**

Edited by: Raquel Quatrini and D. Barrie Johnson (Published: 2016)

☞ **Climate Change and Microbial Ecology: Current Research and Future Trends**

Edited by: Jürgen Marxsen (Published: 2016)

☞ **Biofilms in Bioremediation: Current Research and Emerging Technologies**

Edited by: Gavin Lear (Published: 2016)

☞ **Microalgae: Current Research and Applications**

Edited by: Maria-Nefeli Tsaloglou (Published: 2016)

☞ **Gas Plasma Sterilization in Microbiology: Theory, Applications, Pitfalls and New Perspectives**

Edited by: Hideharu Shintani and Akikazu Sakudo (Published: 2016)

☞ **Virus Evolution: Current Research and Future Directions**

Edited by: Scott C. Weaver, Mark Denison, Marilyn Roossinck and Marco Vignuzzi (Published: 2016)

☞ **Arboviruses: Molecular Biology, Evolution and Control**

Edited by: Nikos Vasilakis and Duane J. Gubler (Published: 2016)

☞ ***Shigella*: Molecular and Cellular Biology**

Edited by: William D. Picking and Wendy L. Picking (Published: 2016)

☞ **Aquatic Biofilms: Ecology, Water Quality and Wastewater Treatment**

Edited by: Anna M. Romání, Helena Guasch and M. Dolors Balaguer (Published: 2016)

☞ **Alphaviruses: Current Biology**

Edited by: Suresh Mahalingam, Lara Herrero and Belinda Herring (Published: 2016)

☞ **Thermophilic Microorganisms**

Edited by: Fu-Li Li (Published: 2015)

☞ **Flow Cytometry in Microbiology: Technology and Applications**

Edited by: Martin G. Wilkinson (Published: 2015)

"an impressive group of experts" ([ProtoView](#))

☞ **Probiotics and Prebiotics: Current Research and Future Trends**

Edited by: Koen Venema and Ana Paula do Carmo (Published: 2015)

☞ **Epigenetics: Current Research and Emerging Trends**

Edited by: Brian P. Chadwick (Published: 2015)

"this is one text you don't want to miss" ([Epigenie](#)); "up-to-date information" ([ChemMedChem](#))

☞ ***Corynebacterium glutamicum*: From Systems Biology to Biotechnological Applications**

Edited by: Andreas Burkovski (Published: 2015)

"Without question a valuable book" ([BIOSpektrum](#))

☞ **Advanced Vaccine Research Methods for the Decade of Vaccines**

Edited by: Fabio Bagnoli and Rino Rappuoli (Published: 2015)

Biochemistry, Genetics and Molecular Biology Genetics Molecular Biology. Publisher. Brazilian Society of Genetics. Genetics and Molecular Biology (formerly named Revista Brasileira de Genética/Brazilian Journal of Genetics - ISSN 0100-8455) is published by the Sociedade Brasileira de Genética (Brazilian Society of Genetics). The Journal considers contributions that present the results of original research in genetics, evolution and related scientific disciplines. Manuscripts presenting methods and applications only, without an analysis of genetic data, will not be considered. Homepage. How to publish in this journal. Genetics and Molecular Biology follows and Open-Access policy. Articles are made available in full content at SciELO (Scientific Library Online) hosted at www.scielo.br/gmb. Back issues dating to 1998 are available through this site. Articles published since 2009 are also indexed at PubMed Central, and there available as a full text version. Submission of papers. The Journal considers contributions that present the results of original research in genetics, evolution and related scientific disciplines. Although Genetics and Molecular Biology is an official publication of the Brazilian Society of Genetics, contributors are not required to be members of the Society. The publication charge for accepted manuscripts is: US\$ 800 for manuscripts from abroad. Molecular biology and genetics study organisms on a cellular and molecular level. This is a rapidly developing field of biological sciences which has many important applications not only in biomedical sciences, but also in other domains such as agriculture. The study of living things at molecular and genetic levels have undergone tremendous development and expansion in the last decades, and as a result undergraduate education in topics such as molecular cell biology, molecular genetics and genomics are becoming of higher interest. General Information. I was therefore anticipating the arrival of what promised to be a comprehensive volume entitled *Pseudomonas-Genomics and Molecular Biology*. What arrived was a small-formatted book containing 9 chapters on 244 pages. A number of prominent topics were omitted, including degradation of aromatics, denitrification, surfactants, and type III secretion. Even more disturbing was the pricing at around \$300. Perhaps the publisher and the majority of contributors hailing from Europe were unaware of current graduate student and postdoc salaries in the United States.