Caister Academic Press www.caister.com

Bacillus Cellular and Molecular Biology (Third edition)



Edited by: Peter L. Graumann University of Freiburg, Germany

Published: March 2017. Pages: viii + 470

ISBN: Book: 978-1-910190-57-9. Ebook: 978-1-910190-58-6 £199, \$399

Published by: Caister Academic Press www.caister.com

The third edition of this authoritative reference work is indispensable to *Bacillus* scientists and invaluable for anyone involved in bacterial cell biology. Revised, updated and expanded with two new chapters on motility and nucleotide regulation, the new edition provides up-to-date reviews on current *Bacillus* research. Subjects covered include chromosome replication, DNA repair, chromosome segregation, cell division, transcription and translation, RNA-mediated regulation, general and regulatory proteolysis, the MreB cytoskeleton, membrane proteins, the cell wall, sporulation, biofilms, multicellularity and social behaviour, competence and transformation, motility and nucleotide regulation.

An essential book for anyone involved in *Bacillus* and an invaluable reference work for those working in fields as diverse as medicine, biotechnology, agriculture, food and industry. A recommended acquisition for all microbiology laboratories.

Chapter 1. Replication of the *Bacillus subtilis* Chromosome (Heath Murray, Tomas T. Richardson, Marie-Françoise Noirot-Gros, Patrice Polard and Philippe Noirot)

Chapter 2. Dynamics of DNA Double-strand Break Repair in Bacillus subtilis (Begoña Carrasco, Paula P. Cárdenas,

Ester Serrano, Rubén Torres, Elena M. Seco, Silvia Ayora and Juan C. Alonso)

Chapter 3. Chromosome Arrangement and Segregation (Peter L. Graumann)

Chapter 4. Cell Division (Frederico Gueiros-Filho)

Chapter 5. The Organisation of Transcription and Translation (Peter Lewis and Xiao Yang)

Chapter 6. RNA-mediated Regulation in Bacillus subtilis (Wade C. Winkler)

Chapter 7. General and Regulatory Proteolysis in Bacillus subtilis (Kürşad Turgay)

Chapter 8. The Actin-like MreB 'Cytoskeleton' (Rut Carballido-López)

Chapter 9. Ins and Outs of the Bacillus subtilis Membrane Proteome (Jan Maarten van Dijl, Annette Dreisbach, Marcin J.

Skwark, Mark J.J.B. Sibbald, Harold Tjalsma, Jessica C. Zweers and Girbe Buist)

Chapter 10. The Cell Wall of Bacillus subtilis (Danae Morales Angeles and Dirk-Jan Scheffers)

Chapter 11. Genomics and Cellular Biology of Endospore Formation (Patrick Eichenberger)

Chapter 12. Multicellularity and Social Behaviour in Bacillus subtilis (José Eduardo González-Pastor)

Chapter 13. Competence and Transformation (Berenike Maier)

Chapter 14. Swimming, Swarming and Sliding Motility in Bacillus subtilis (Anna C. Hughes and Daniel B. Kearns)

Chapter 15. Nucleotide Second Messengers: (p)ppGpp and Cyclic Dinucleotides (Danny K. Fung, Brent W. Anderson,

Jessica L. Tse and Jue D. Wang)

Order from:

Caister Academic Press https://www.caister.com/order

CURRENT BOOKS OF INTEREST

www.caister.com

Porcine Viruses: From Pathogenesis to Strategies for Control

Edited by: Hovakim Zakaryan (Published: 2019)

Lactobacillus Genomics and Metabolic Engineering

Edited by: Sandra M. Ruzal (Published: 2019)

Cyanobacteria: Signaling and Regulation Systems

Author: Dmitry A. Los (Published: 2018)

Viruses of Microorganisms

Edited by: Paul Hyman and Stephen T. Abedon (Published: 2018)

Protozoan Parasitism: From Omics to Prevention and Control

Edited by: Luis Miguel de Pablos Torró and Jacob-Lorenzo Morales (Published: 2018)

Genes, Genetics and Transgenics for Virus Resistance in Plants

Edited by: Basavaprabhu L. Patil (Published: 2018)

DNA Tumour Viruses: Virology, Pathogenesis and Vaccines

Edited by: Sally Roberts (Published: 2018)

Pathogenic Escherichia coli: Evolution, Omics, Detection and Control

Edited by: Pina M. Fratamico, Yanhong Liu and Christopher H. Sommers (Published: 2018)

Postgraduate Handbook: A Comprehensive Guide for PhD and Master's Students and their Supervisors

Author: Aceme Nyika (Published: 2018)

Enteroviruses: Omics, Molecular Biology, and Control

Edited by: William T. Jackson and Carolyn B. Coyne (Published: 2018)

"frontiers in the study of the 12 species of the genus" (ProtoView); "the current most important enterovirus research" (Biotechnol. Agron. Soc. Environ.)

Molecular Biology of Kinetoplastid Parasites

Edited by: Hemanta K. Majumder (Published: 2018)

Bacterial Evasion of the Host Immune System

Edited by: Pedro Escoll (Published: 2017)

"The figures are expertly drawn" (SIMB News)

Illustrated Dictionary of Parasitology in the Post-Genomic Era

Author: Hany M. Elsheikha and Edward L. Jarroll (Published: 2017)

"a guide for students, academic staff, medical and veterinarian professionals" (ProtoView); "an extensive and comprehensive glossary of contemporary concepts, terminologies, and vocabulary in modern parasitology" (Doodys); "a pure pleasure to explore and discover" (Epidemiol. Infect.); "highly recommended" (Biotechnol. Agron. Soc. Environ.)

Next-generation Sequencing and Bioinformatics for Plant Science

Edited by: Vijai Bhadauria (Published: 2017)

The CRISPR/Cas System: Emerging Technology and Application

Edited by: Muhammad Jamal (Published: 2017)

"reviews recent advances" (ProtoView)

Brewing Microbiology: Current Research, Omics and Microbial Ecology

Edited by: Nicholas A. Bokulich and Charles W. Bamforth (Published: 2017)

"a valuable information source ... an authoritative overview" (IMA Fungus); "a must read book" (SIMB News)

Metagenomics: Current Advances and Emerging Concepts

Edited by: Diana Marco (Published: 2017)

"presents those new to the field with important aspects of metagenomics" (Eur. J. Soil Sci.)

Edited by: Peter L. Graumann (Published: 2017)

"a one-stop shop for a huge range of Bacillus-focused molecular biology" (Microbiology Today)