

Real-Time PCR

Current Technology and

Applications

Editors: Julie Logan, Kirstin Edwards and Nick Saunders

x + 284 pp., January 2009

ISBN: 978-1-904455-39-4, \$310/£150

This essential manual presents a comprehensive guide to the most up-to-date technologies and applications as well as providing an overview of the theory of this increasingly important technique. Renowned experts in the field describe and discuss the latest PCR platforms, fluorescent chemistries, validation software, data analysis, and internal and external controls. This timely and authoritative volume also discusses a wide range of RT-PCR applications including: clinical diagnostics, biodefense, RNA expression studies, validation of array data, mutation detection, food authenticity and legislation, NASBA, molecular halotyping, and much more. An essential book for all laboratories using PCR.

Plasmids

Current Research and Future Trends

Edited by: Georg Lipps

viii + 264 pp., July 2008

ISBN 978-1-904455-35-6 \$310 / £150

Written by acknowledged experts in the field, this volume provides an up to date treatment of the structure, function and application of plasmids with a particular emphasis on current and future trends. Chapters include a historical perspective on *E. coli* plasmids and the scientific background of the plasmids used routinely in laboratories to clone genes and to express proteins; an overview on the plasmids of archaea and eukarya; bioinformatic tools; horizontal gene transfer and the process of DNA transfer. Two entire chapters are devoted to the important medical applications of plasmids, including the correction of gene defects and vaccines to treat cancer or infectious diseases.

Staphylococcus

Molecular Genetics

Edited by: Jodi Lindsay

x + 278 pp., May 2008

ISBN 978-1-904455-29-5 \$300 / £150

An international panel of leading staphylococcal researchers provide a state-of-the-art overview of the field. Topics include the sequencing projects, including spin-off microarray and systems biology tools, epidemiology, evolution, manipulation of the genome, diagnostics, gene expression due to global regulators and environmental triggers, cell-wall synthesis, coagulase-negative species, and animal pathogens. Essential reading.

RNA and the

Regulation of Gene Expression

Edited by: Kevin V. Morris

x + 228 pp., March 2008

ISBN 978-1-904455-25-7 \$300 / £150

In this book internationally recognized experts in RNA research explore and discuss the methods whereby RNA can regulate gene expression with examples in yeast, *Drosophila*, mammals, and viral infection, and highlight the application of this knowledge in therapeutics and research. Topics include: gene silencing and gene activation, the hammerhead ribozyme, epigenetic regulation, RNAi, microRNA, and piRNAs. This comprehensive publication is intended for readers with teaching or research interests in RNA, the regulation of gene expression, genetics, genomics or molecular biology.

Legionella

Molecular Microbiology

Edited by: Klaus Heuner and Michele Swanson

x + 254 pp., March 2008

ISBN 978-1-904455-26-4 \$300 / £150

Internationally renowned authors. The latest research findings with an emphasis on molecular aspects. Essential reference source.

Helicobacter pylori

Molecular Genetics and Cellular Biology

Edited by: Yoshio Yamaoka

x + 262 pp., July 2008

ISBN 978-1-904455-31-8 \$310 / £150

Distills the most important cutting-edge findings to produce a timely and comprehensive review of the field. A useful introduction to the subject for new researchers and an invaluable reference for the experienced microbiologist.

Real-Time PCR in Microbiology

From Diagnosis to Characterization

Edited by: Ian M. Mackay

x + 454 pp., Sept. 2007

ISBN 978-1-904455-18-9 \$300 / £150

A background for the novice, a theoretical reference for the experienced user, and useful discussions of future developments. Includes: oligonucleotide design, target preparation, standardisation, quantification, various applications, and future challenges. The final chapter is a roundtable discussion providing an insightful, topical and interesting discourse with contributions from over 30 experts.

Mycobacterium

Genomics and Molecular Biology

Edited by: Tanya Parish and Amanda Brown

x + 230 pp., January 2009

ISBN: 978-1-904455-40-0 \$310 / £150

The focus is on the topical and most relevant aspects and the authors give readers an insight into the current understanding of the subject and the future direction of research.

Microbial Production of Biopolymers and Polymer Precursors Applications and Perspectives

Edited by: Bernd H. A. Rehm

x + 294 pp., January 2009

ISBN 978-1-904455-36-3 \$310 / £150

Reviews in detail the genetic and metabolic engineering of microorganisms for biopolymer production, the book also includes in-depth descriptions of the principal biosynthetic pathways, physical properties and industrial production processes.

Other Books of Interest

- *Lactobacillus* Molecular Biology: From Genomics to Probiotics
- Pasteurellaceae: Biology, Genomics and Molecular Aspects
- Clostridia: Molecular Biology in the Post-genomic Era
- *Vibrio cholerae*: Genomics and Molecular Biology
- Corynebacteria: Genomics and Molecular Biology
- Epigenetics
- *Leishmania*: After The Genome
- Pathogenic Fungi: Insights in Molecular Biology
- Archaea: New Models for Prokaryotic Biology
- Molecular Oral Microbiology
- The Cyanobacteria: Molecular Biology, Genomics and Evolution
- *Acinetobacter* Molecular Biology
- *Pseudomonas*: Genomics and Molecular Biology
- Microbial Biodegradation: Genomics and Molecular Biology
- PCR Troubleshooting: The Essential Guide
- *Bacillus*: Cellular and Molecular Biology
- Animal Viruses: Molecular Biology
- Papillomavirus Research: From Natural History To Vaccines and Beyond
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