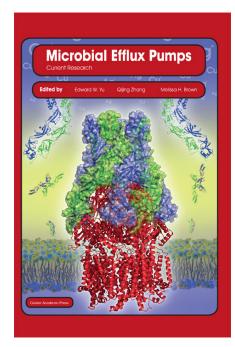
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# **Microbial Efflux Pumps**

### **Current Research**

Edited by: <sup>1</sup>Edward W. Yu, <sup>2</sup>Qijing Zhang and <sup>3</sup>Melissa H. Brown

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x + 248 (plus colour plates) pp, June 2013 ISBN: 978-1-908230-21-8, \$319/£159

Microbial efflux pumps have important physiological functions, play major roles in bacterial pathogenesis and are widely distributed across diverse bacterial species. A single species may harbour several different types of efflux systems: of these, active efflux has proven to be one of the most successful detoxification mechanisms used by both Gram-positive and -negative pathogens. Compounds extruded include a diverse range of antimicrobials, rendering many almost impotent due to the rapid evolution and spread of antibiotic resistance. Unravelling the intricacies of the microbial efflux systems is essential for the development of new strategies to overcome antimicrobial resistance. This has inspired a plethora of multidisciplinary research projects that have focused on the biochemistry, bioinformatics, structural and molecular biology of this fascinating field. With contributions from leading researchers in the field, this book reviews the most important current research and summarizes the most spectacular discoveries. Essential reading.

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Edited by: Alita A. Miller and Paul F. Miller viii + 460 pp, August 2011 ISBN: 978-1-904455-89-9, \$360/£180

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- "..... A must for anyone who is involved in the field of antibiotic research." BIOspektrum
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Current Research and Industrial Applications

Edited by: Irene Wagner-Döbler xii + 144 pp, January 2013

ISBN: 978-1-908230-13-3, \$240/£120

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## Genome Analysis: Current Procedures and Applications

Edited by: Maria S. Poptsova c. 370 (plus colour plates) pp, January 2014

c. 370 (plus colour plates) pp, January 2014 ISBN: 978-1-908230-29-4, \$319/£159

An invaluable, up-to-date and comprehensive overview of the methods currently employed for next-generation sequencing (NGS) data analysis, highlights their problems and limitations, demonstrates the applications and indicates the developing trends in various fields of genome research.

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Edited by: Nick A. Saunders and Martin A. Lee c. 300 (plus colour plates) pp, July 2013 ISBN: 978-1-908230-22-5, \$319/£159

Renowned international authors present detailed technical insights into the underlying principles, methods and practice of real-time PCR. The editors also aim to stimulate readers of all levels to develop their own innovative approaches to real-time PCR. An essential book.

#### **Horizontal Gene Transfer in Microorganisms**

Edited by: M. Pilar Francino x + 202 pp, September 2012

ISBN: 978-1-908230-10-2, \$319/£159

Topics include: gene survival in emergent genomes, evolution of prokaryotic pangenomes, horizontal transfer of host-adaptability systems, barriers to horizontal gene transfer, evolution of horizontally transferred genes, lateral gene transfer in natural ecosystems, maintenance of plasmids among bacteria, mobile genetic elements in metagenomes, and the evolution of antibiotic resistance genes. A major resource for anyone interested in horizontal gene transfer, microbial evolution or antibiotic resistance in bacteria.

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