DESCRIPTION

Most of the antibiotics now in use have been discovered more or less by chance, and their mechanisms of action have only been elucidated after their discovery. To meet the medical need for next-generation antibiotics, a more rational approach to antibiotic development is clearly needed.

Opening with a general introduction about antimicrobial drugs, their targets and the problem of antibiotic resistance, this reference systematically covers currently known antibiotic classes, their molecular mechanisms and the targets on which they act. Novel targets such as cell signaling networks, riboswitches and bacterial chaperones are covered here, alongside the latest information on the molecular mechanisms of current blockbuster antibiotics.

With its broad overview of current and future antibacterial drug development, this unique reference is essential reading for anyone involved in the development and therapeutic application of novel antibiotics.

ABOUT THE AUTHOR

Claudio Gualerzi is full professor of Molecular Biology at the University of Camerino (Italy) and member of the EMBO. Following his studies at the University of Rome-La Sapienza and a postdoctoral period at the University of Pennsylvania (USA), he served as research group leader at the Max-Planck-Institute for Molecular Genetics in Berlin (Germany). He was consultant for the Lepetit
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Cynthia Pon received her PhD from Rutgers the State University (USA). Following post-doctoral periods at the University of Pennsylvania and Hunter College of the City University of New York, she worked at the Max-Planck-Institute for Molecular Genetics in Berlin (Germany) before becoming full professor of Molecular and Microbial Genetics at the University of Camerino (Italy). Her work has focused on the mechanism of protein synthesis, global responses in bacteria and action.

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