



antibiotics



Special Issue Reprint

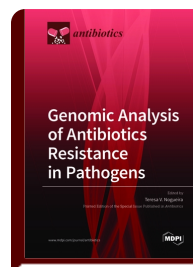
Genomic Analysis of Antibiotics Resistance in Pathogens

www.mdpi.com/books/reprint/6682

Edited by
Teresa V. Nogueira

ISBN 978-3-0365-6524-8 (Hardback)

ISBN 978-3-0365-6523-1 (PDF)



The emergence of antibiotic-resistant pathogens currently represents a serious threat to public health and the economy. Due to antibiotic treatments in humans and veterinary medicine, prophylactic use and environmental contamination, bacteria are today more frequently exposed to unnatural doses of antibiotics and their selective effect.

Antibiotic resistance can be encoded on chromosomes, plasmids, or other mobile genetic elements in bacteria. It may also result from mutations that lead to changes in the affinity of antibiotics for their targets or in the ability of antibiotics to act on bacterial growth or death. Exposure of bacteria, bacterial populations, and microbial communities to antibiotics at different concentrations shapes their genomic dynamics, as does the mobilisation and spread of resistance determinants. It is, therefore, essential to understand the dynamics and mobilisation of genes encoding antibiotic resistance, in human, animal, plant, and environmental microbiomes, through genomic and metagenomic approaches and bioinformatics analyses.

This Special Issue gathers research publications on the horizontal transfer of antibiotic-resistance genes, their dissemination and epidemiology, their association with bacterial virulence, between bacterial genotypes and their phenotypes, and other related research topics.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6682

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.