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Sommario/riassunto	Increased pathogen resistance to conventional drugs is partially due to increased numbers of immune-compromised patients, therefore the development of alternative antibiotic therapies able to circumvent this problem is one of the intriguing challenges of modern medicine. The discovery of antimicrobial peptides has been considered, in recent years, to be essential for the solution to infections caused by bacterial and fungal diseases, owing to their commonly observed and naturally occurring resistance against pathogens. In addition to the obvious antimicrobial activity commonly associated with membrane disruption, such peptides also have shown auxiliary activities such as immunomodulatory, anti-tumor and biofilm-disruption. Moreover, antibiotic peptides have been considered critical as therapeutic agents for the control of infectious bacterial diseases; the resistance to antibiotics has become a globally recognized public health problem. In most bacterial species, after exposing microorganisms to antibiotic peptides, several systems are affected such as energy and nitrogen metabolism regulation, glucan biosynthesis, amino acid, protein, and nucleotide synthesis, and, moreover, various proteins show a stress response. Despite some articles having been published about bacterial

resistance toward antimicrobial peptides, multiple gaps need to be filled in order to better understand this mechanism. In this view, this edition proposes the analyses of these unusual and interesting peptides and will provide a clearer understanding of such bacterial resistance towards AMPs. In summary, this proposal focuses on AMPs and their multiple activities as well as on AMP bacterial resistance, attracting several researchers from different areas.