Special Issue

New Insight and Applications of Multifunction Antimicrobial Peptides

Message from the Guest Editor

Antimicrobial peptides (AMPs), or host defense peptides (HDPs), are produced by all living organisms. The main target of these peptides is the cytoplasmic membrane; however, DNA, cell wall, and protein synthesis are also affected by some AMPs. Currently, antimicrobial resistance is acknowledged as a major concern in the world. Their misuses have enabled the development and dissemination of microorganisms with expanded antibiotic resistance capability. Research on the alternatives to tackle this phenomenon is urgently needed, Today, AMPs have largely demonstrated their effectiveness on several malevolent bacteria. In addition to their antibacterial activity, AMPs are also endowed with further functions, including antiviral, antiparasitic, anti-inflammatory, and anticarcinoma activities. Some of these peptides are even able to modulate the immune response of host organisms, regulating cytokine secretion and dendritic cell behavior, and enhance recovery abilities. This "multifunction status" of AMPs renders these molecules a new category of drugs whose potential has been steadily reported and documented.

Guest Editor

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