

Special Issue

Natural Antimicrobial Agents: Design, Synthesis, and Evaluation

Message from the Guest Editors

The emergence of multi-drug resistance in common human pathogens has highlighted the need to develop novel classes of antimicrobials for the treatment of human disease. Antibiotics are no longer the magic bullets they were once thought to be, and therefore there is an urgent need for the development of alternative therapeutic strategies to combat infections without inducing drug resistance. Naturally produced chemicals are of fundamental importance in biological systems. Natural antimicrobial scaffolds can also act as inspiration for the design and synthesis of new antimicrobial agents. Several topics in this research area are discussed:

- Isolation and structure elucidation of natural products with antimicrobial activities;
- Synthesis of antimicrobial natural product analogues;
- Synthesis of new classes of natural antimicrobial agents with anti-virulence and anti-biofilm properties;
- Rational design of antimicrobial agents based on natural products;
- Structure-activity relationship studies of natural antimicrobial agents;
- Applications and targeted delivery of natural antimicrobial agents;
- Synergistic activities of natural antimicrobial agents.

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