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Natural Antimicrobial Agents: Design, Synthesis, and Evaluation

Guest Editors:

Prof. Dr. Naresh Kumar
School of Chemistry, University of New South Wales, Sydney, NSW 2052, Australia

Dr. Renxun Chen
School of Chemistry, University of New South Wales, UNSW, Sydney, Australia

Deadline for manuscript submissions:
closed (31 January 2022)

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:

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

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Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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Contact Us

Molecules Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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