

Special Issue

Natural and Synthetic Antimicrobial Substances: Novel Advances and Applications

Message from the Guest Editors

The development of new drugs able to counteract pathogenic microbes is crucial in many fields of application due to the large increase in drug-resistant bacterial strains. The growing problem of resistance to conventional antibiotics and the need for new antibiotics has stimulated interest in the development of new possible human therapy. Much interest has been directed towards natural molecules or antimicrobial peptides. In this respect, the study of their mechanisms of action and the identification of their protein targets could increase their specificity and power of action, leaving pathogens exposed to antibiotic treatments. This Special Issue will be dedicated not only to the study on new antimicrobial compounds, natural or synthetic, but also to studies on already-existing compounds to identify specific protein targets and develop new molecules with improved antimicrobial profiles.

Guest Editors

Dr. Angela Di Somma

Department of Chemical Sciences, University of Naples "Federico II",
Via Cinthia 4, 80126 Napoli, Italy

Prof. Dr. Angela Duilio

Department of Chemical Sciences, Università Federico II di Napoli,
Vicinale Cupa Cintia 26, 20126 Naples, Italy

Deadline for manuscript submissions

20 June 2025



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/187521

Applied Sciences
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls-ci@mdpi.com

[mdpi.com/journal/
appls-ci](https://mdpi.com/journal/appls-ci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)