



an Open Access Journal by MDPI

New and Innovative Applications of Antimicrobial Photodynamic Therapy

Guest Editor:

Dr. Kristjan Plaetzer

Laboratory of Photodynamic Inactivation of Microorganisms, Department of Biosciences, University of Salzburg, Salzburg, Austria

Deadline for manuscript submissions: closed (31 March 2021)



Dear Colleagues,

Antimicrobial photodynamic therapy (aPDT) is based on photosensitizer-mediated light-induced and the overproduction of reactive oxygen species to kill a wide spectrum of microorganisms irrespective of their resistance to conventional treatment. Motivated by the success of aPDT in human medicine, novel and very promising applications of this antimicrobial approach are constantly identified and discovered. Recent developments include photodynamic decontamination of food based on edible photosensitizers, photoactive self-disinfecting and materials and textiles, photo-insecticides, and application of aPDT in plant protection against pathogens. As microorganisms trouble humans in all habitats, nearly no limits are set to imagination in terms of further expanding the scope of applications. We invite investigators to contribute original research papers as well as review articles to this Special Issue that will stimulate the efforts to widen the application spectrum of the antimicrobial photodynamic approach.

Keywords: antimicrobial photodynamic therapy (aPDT); plant pathogens; food safety; photo-insecticides; aquacultures









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Nicholas Dixon

School of Chemistry and Molecular Bioscience, University of Wollongong, Wollongong, NSW 2522, Australia

Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supragovernmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciples are all key. Antibiotics is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

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), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (*Pharmacology & Pharmacy*) / CiteScore - Q1 (*General Pharmacology, Toxicology and Pharmaceutics*)

Contact Us

Antibiotics Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/antibiotics antibiotics@mdpi.com X@antibioticsmdpi