Special Issue

Polymeric Systems as Antimicrobial or Antifouling Agents

Message from the Guest Editors

Antimicrobial polymers can help to prevent biofilm development and solve the problems associated with the use of conventional antimicrobial agents, such as residual toxicity, short term antimicrobial activity and development of resistant microorganisms. The microbial adhesion is a problem particularly felt in the field of medical devices since it can lead to serious infections and device failure. Different types of polymer systems have been designed to prevent microbial adhesion among which the most investigated are: (a) antifouling polymers; (b) amphiphilic polymers mimicking antibacterial peptides occurring in nature; (c) functionalized polymers able to load and release bioactive molecules such as antibiotics, heavy metals and other antiseptic agents. We particularly take an interest in manuscripts that report relevance of antimicrobial polymers in the design and fabrication of medical devices, packaging materials and water purification systems.

Guest Editors

Dr. Antonella Piozzi

Department of Chemistry, Sapienza University of Rome, P. le A. Moro 5, 00185 Rome, Italy

Dr. Iolanda Francolini

Department of Chemistry, Sapienza University of Rome, P. le A. Moro 5, 00185 Rome, Italy

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International Journal of Molecular Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino
Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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