

Special Issue

Drug Resistance in Cancer: Molecular Mechanisms and Tackling Strategies, 2nd Edition

Message from the Guest Editor

Cancer is a highly complex, adaptive system that has the ability to rapidly evolve new phenotypic and genotypic profiles to circumvent therapy. Drug resistance threatens the longevity of drugs and restricts treatment options for patients, with high prevalence in all areas of oncology and infectious disease. With the knowledge that each cubic centimetre of tumour contains up to one billion cancer cells, novel insights into both primary and acquired resistance mechanisms, including drug detoxification, alterations in drug targets, genomic/epigenetic instability, increased ability to repair DNA damage, reduced susceptibility to apoptosis, as well as the influence of the tumour microenvironment and clonal cooperation, are required to substantially alter therapeutic treatment practices and increase overall survival. Some of these resistance pathways lead to multidrug resistance, generating an increasingly challenging clinical problem to overcome. This Special Issue of IJMS will highlight the recent advances in the field of drug resistance, particularly novel mechanisms and targeted strategies to tackle this global modern medicine concern.

Guest Editor

Dr. Kathleen Pishas

The Sir Peter MacCallum Department of Oncology, The University of Melbourne, Melbourne, VIC 3010, Australia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Message from the Editor-in-Chief

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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