



## Defense Mechanisms of Neoplastic Cells against Chemical Stress

Guest Editors:

**Dr. Zdena Sulová**

Institute of Molecular Physiology  
and Genetics, Centre of  
Bioscience, Slovak Academy of  
Sciences, Bratislava, Slovakia

**Prof. Dr. Albert Breier**

Institute of Biochemistry and  
Microbiology, Faculty of  
Chemical and Food Technology,  
Slovak University of Technology,  
812 37 Bratislava, Slovakia

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### Message from the Guest Editors

There have been several breakthroughs in the treatment of neoplastic diseases, many of which allow curative therapy or significantly reduce the negative effects on patients' length and quality of life. Cancer chemotherapy is one of the essential therapeutic approaches to effective treatment. Highly active substances have been developed which significantly contribute to the suppression of the development of neoplastic diseases. However, patients may also be non-responders who do not respond to treatment with otherwise effective therapeutics. This is due to a decrease in the sensitivity of neoplastically transformed cells to the drug used. Tumor cells can use several inherent mechanisms to protect them from chemical stress, thus developing a drug-resistant phenotype. A special case of substance resistance is multidrug resistance, in which protective changes in the cellular phenotype provide resistance to different substances with essentially different structure and mechanism of action.





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### Prof. Dr. José L. Quiles

Department of Physiology,  
Institute of Nutrition and Food  
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University of Granada, Avda.  
Conocimiento s/n, 18100 Armilla,  
Granada, Spain

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*International Journal of Molecular  
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MDPI, Grosspeteranlage 5  
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