

Special Issue

Extracellular Chaperones and Related miRNA as Diagnostic Tools of Chronic Diseases: From Cell Differentiation to Molecular Diagnostics

Message from the Guest Editors

Extracellular vesicles (EVs) are 50–1000 nm membrane-bound particles released from eukaryotic and prokaryotic cells which are involved in communication between cells near and far from the cell of origin, and this interaction has an impact on the functions of the target cell. They transfer various molecules, such as RNAs, miRNAs and proteins, including chaperones such as heat shock proteins (HSPs). In cellular homeostasis, chaperones and related miRNAs have been shown to be involved in cell differentiation, tissue homeostasis and organ remodeling. The aim of this Special Issue is to collect a series of papers which present scientific evidence that extracellular chaperones and their related miRNA could be potential biomarkers of chronic disease, with a high potential of benefits for regenerative medicine, probably being the most effective way to deliver therapeutic molecules into target cells. We also wish to emphasise the importance of fully understanding the role of extracellular HSPs released from EVs and related miRNAs and encourage further research in this field to use them as early biomarkers and therapeutic targets.

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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

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