Special Issue

Extracellular Vesicles: Research Advances in Cancer Treatment and Diagnostics

Message from the Guest Editor

Extracellular vesicles (EVs) are membrane-bound vesicles released by cells that carry RNA, proteins, and lipids. These EVs can be derived directly from the plasma membrane or be endosomal-derived vesicles ranging in size from 30 to 1000 nm. EVs are considered essential in modulating the tumor microenvironment by tumor cells and are pivotal in the preparation of the premetastatic niche. Since cancer-derived EVs are enriched in differentially expressed RNAs and proteins and can be found in biological fluids such as blood and urine, EVs can be used as diagnostic tools, hopefully eliminating the need for surgically obtained biopsies. For therapeutic purposes, the inhibition of cancer exosomes has been successfully attempted. The stability and biocompatibility of EVs, combined with their capacity to carry molecules with therapeutic potential and their ability to target specific cell types, have led to their increasing use as vectors for therapeutic purposes. Therefore, this Special Issue welcomes all inputs on EV research with a focus on cancer treatment and diagnostic.

Guest Editor

Dr. Luís R. Raposo

BioRG, Bioengineering and Sustainability Research Group, Lusofona University, Av. Campo Grande 376, 1749-024 Lisboa, Portugal

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Biomedicines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

mdpi.com/journal/biomedicines





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Editor-in-Chief

Prof. Dr. Felipe Fregni

- Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
- 2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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