



## Mesenchymal Stem Cell-Derived Extracellular Vesicles as Therapeutics

Guest Editors:

**Dr. Enrico Ragni**

Laboratorio di Biotecnologie  
Applicate All'Ortopedia, IRCCS  
Ospedale Galeazzi–  
Sant'Ambrogio, Via Cristina  
Belgioioso 173, 20157 Milan, Italy

**Dr. Carlotta Perucca Orfei**

Laboratorio di Biotecnologie  
Applicate all'Ortopedia, IRCCS  
Istituto Ortopedico Galeazzi, I-  
20161 Milano, Italy

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### Message from the Guest Editors

Dear Colleagues,

Mesenchymal stromal cells (MSCs) have gained attention in the field of regenerative medicine. MSCs' differentiation potential together with their paracrine properties has made them a crucial option for tissue healing. MSCs' paracrine properties rely on the release of soluble factors and extracellular vesicles (EVs) such as exosomes and microvesicles. In the last decade, EVs have been postulated as crucial players for the therapeutic effect of MSCs in several in vitro and in vivo disease models. Moreover, a number of clinical trials using MSC-EVs have been started covering cancer, neurological diseases and diabetes. Hence, MSC-EVs may be envisioned as a cell-free therapy in regenerative medicine and all those diseases where tissue healing is needed. Nevertheless, a deep characterization of the cargo fingerprint associated with the MSC source and an explanation of MSCs' properties are still largely missing. Therefore, the aim of this Special Issue is to collect reports from in vitro to clinical trials aimed at shedding light on MSC-EV features at both the physiological and molecular levels.

Dr. Enrico Ragni  
Dr. Carlotta Perucca Orfei  
*Guest Editors*





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### Prof. Dr. Patrick J. Sinko

Department of Pharmaceutics,  
Ernest Mario School of  
Pharmacy, Rutgers University,  
Piscataway, NJ 08854, USA

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*Pharmaceutics* Editorial Office  
MDPI, St. Alban-Anlage 66  
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