### **Special Issue**

5th Anniversary of 'Applied Biosciences and Bioengineering' Section—Recent Advances in Extracellular Vesicles and Innate Immune System-Engineered Extracellular Vesicles as a Potential Immuno-Therapeutic Tool

#### Message from the Guest Editor

Recently, great interest has been expressed in extracellular vesicles (EVs), heterogeneous structures enclosed by phospholipid membranes. Exosomes constitute a subset of extracellular vesicles (EVs) and can be released from almost all cell types. Exosomes efficiently transport functional components to recipient cells. The innate immune system plays a crucial role in host defense against viral and microbial infections. Evidence has shown that exosomes derived from tumor cells, host cells and bacteria mediate communication between the invader and innate immune cells and play an important role in the spread of pathogens by modulating the innate response. The Special Issue aims to compile current knowledge on EVs (especially exosomes) and their role in determining innate immune responses. Cells can be genetically engineered to produce EVs that carry specific target and/or therapeutic molecules, offering important opportunities for biomedical applications of EVs.

#### **Guest Editor**

Prof. Dr. Giovanna Traina

Department of Pharmaceutical Sciences, University of Perugia, Via Romana, 06126 Perugia, Italy

#### Deadline for manuscript submissions

closed (30 September 2024)



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Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41616837734 applsci@mdpi.com

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#### Message from the Editor-in-Chief

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 multidimensional network.

#### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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