Special Issue

Extracellular Vesicles: Nanotechnology-Based Isolations, Characterizations, and Applications for Cancer Diagnostics and Monitoring

Message from the Guest Editor

Extracellular vesicles (EVs) are a heterogeneous group of nanosized cell-derived membrane-bound vesicles that are continuously released by nearly all cells. To translate EVs into clinical applications, EVs need to be characterized, and they often require isolation from biological fluids for accurate downstream analysis. The structure and functional properties of nanomaterials can be used to develop new assays to overcome limitations of the traditional methods, advancing EV research and accelerating EV translation into clinic applications. This Special Issue aims to publish research that demonstrates the latest advancements in using nanotechnology for EV isolations, characterizations, and applications for cancer diagnostics, monitoring, and treatment. See the following topics: Nanotechnology-based methods and devices to isolate and purify EVs; Nanotechnology-based technologies and sensors to characterize the molecular constituents of EVs including proteins and nucleic acids; Application of nanotechnology-based EV analysis for cancer diagnostics, cancer monitoring. See more information in: https://www.mdpi.com/si/198070

Guest Editor

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Deadline for manuscript submissions

27 January 2026

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/198070

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Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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