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Electrospun Nanofibers for Biomedical Applications

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Message from the Guest Editors

Dear Colleagues,

Nanomaterial-based solutions are amongst the most promising therapies to face the increasing incidences of cancer, cardiovascular, respiratory, musculoskeletal and neurodegenerative diseases, associated with the aging of the world population. Nanofibers have already been proposed as devices for a wide range of applications. In particular, the unique properties of electrospun nanofibers have supported the development of highly effective therapeutic solutions to many unmet clinical needs.

This Special Issue aims at assembling a set of highly-innovative contributions on the most advanced solutions and therapies based on or involving electrospun meshes, as well as radical new strategies to extend its applicability. Of particular interest are papers tackling the following research topics:

- scaffolds structure and functionalization for tissue engineering and regenerative medicine;
- delivery systems for drugs/proteins/genes;
- bioactive wound dressings;
- membranes for different medical applications including filtration and dialysis;
- imaging and biosensing for disease diagnostics and/or prognosis.



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Special Issue



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Message from the Editor-in-Chief

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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