



## Nanoparticles for Medical Applications: Progress in Surface Modification

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### Message from the Guest Editors

In the last years, nanoparticles attracted the researchers interest due to their exclusive chemical and physical properties. In medical applications, different kind of nanoparticles have been investigated; moreover, several progresses have been made regarding their synthesis method. However, more efforts are still required to improve and tailor the nanoparticles surface properties.

Surface features are extremely important since they can influence nanoparticles dispersion, biocompatibility, solubility, interaction with biomolecules and cellular internalization. Functionalization with small molecules, surfactants, dendrimers and polymers, is one of the most used strategy to protect nanoparticles against agglomeration, improve their biocompatibility, tailor the biodegradability and impart desired properties. Another strategy is to coat them with thin organic or inorganic layers. Potential topics concern, but are not limited to: Nanoparticles surface functionalization; organic/inorganic coating; Nanoparticles interaction with biomolecules; Biocompatibility; Interaction between nanoparticles and biological systems; Role of nanoparticles surface in the cell internalization.





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