Special Issue

Nanoparticles in Molecular Pharmaceutics

Message from the Guest Editor

From preventing emerging infectious pandemic to treating chronic disorders, nanoparticles have proven to be a key player in transforming the landscape of molecular pharmaceutics by enabling precise payload delivery and enhanced efficacy compared to traditional formulations. Their nanoscale dimensions, tunable physicochemical properties, multifunctionality, and ability to overcome biological barriers make them ideal candidates for addressing complex delivery challenges across diverse agents. This Special Issue emphasizes investigations of nanoparticles at the molecular level, from molecular assembly-mediated nanoformulation to the elucidation of biological processes through in vitro and in vivo studies. Key topics include, but are not limited to, advanced design strategies and manufacturing, the molecular mechanisms of nanoparticles crossing biological barriers. multifunctional therapeutic, and preclinical validation. By bridging fundamental science and translational applications, this issue aims to advance the understanding of nanoparticles as sophisticated solutions for improving health outcomes and shaping the future of molecular pharmaceutics.

Guest Editor

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Message from the Editor-in-Chief

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