Special Issue

In Vitro and In Vivo Biopharmaceutics Assessment of Silica-Based Drug Delivery Systems: Characterization, Drug Release, and Biological Performance

Message from the Guest Editor

This Special Issue aims to present a comprehensive overview of both in vitro and in vivo biopharmaceutics assessments of these innovative nanocarriers. We invite original research and review articles that focus on the detailed characterization of silica-based formulations, including morphology, porosity, and surface modifications, as well as research on drug release kinetics and biological performance. Research areas may include (but are not limited to) the development of innovative methodologies for evaluating drug release kinetics; studies clarifying how experimental factors impact release profiles; and the design of porous materials for controlled release, including systems using silica as a core or as a coating on metal/organic nanoparticles. We also welcome research on surface modifications that modulate in vivo behavior, as well as comparative studies bridging in vitro techniques with in vivo performance, thereby advancing the field of biopharmaceutics.

Guest Editor

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