Special Issue

Polymeric Biomaterials for Drug Delivery

Message from the Guest Editor

Polymeric biomaterials have revolutionized drug delivery by enabling precise targeting, optimized dosing, and controlled therapeutic release. Their inherent structural versatility and chemical tunability facilitate the development of advanced delivery systems tailored to diverse clinical needs. Recent innovations include biodegradable polymers for localized and sustained drug release, stimuli-responsive materials that react to physiological cues, and nanoscale carriers engineered for site-specific accumulation. This Special Issue aims to highlight cutting-edge research on the design, synthesis, characterization, and application of polymeric biomaterials for the delivery of different types of drugs. ranging from small molecules to large biologics or nucleic acids. Topics of interest include, but are not limited to:

- Design and synthesis of novel polymeric drug carriers;
- Stimuli-responsive polymers;
- Biodegradable and biocompatible delivery platforms;
- Gene and nucleic acid delivery platforms;
- Polymeric nanoparticles, micelles, and dendrimers;
- Targeted delivery approaches for cancer, inflammation, and chronic diseases.

Guest Editor

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Editor-in-Chief

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