



Recent Advances in Polymer-Based Drug Delivery Systems

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Message from the Guest Editors

Novel delivery platforms based on natural and synthetic polymers have shown great therapeutic potential for the treatment of different kinds of diseases. Polymers can realize the efficient delivery and controlled release of cargo through physical adsorption, chemical conjunction, and/or internal loading. Notably, polymers with biodegradability, biocompatibility, and physicochemical stability are considered to be ideal delivery carriers. For example, the surface coating of a polymer with polyethylene glycol (PEG) improves water solubility and blood circulation; the conjugation of a polymer with specific markers/antibodies helps control drug distribution/targeting delivery in cancer specifically; some polymeric nanoparticles can cross the blood–brain barrier or improve drug resistance, etc. Polymer drug carriers should be nontoxic and non-immunogenic, which provides a safe framework to deliver therapeutic drugs without harm to the body. Biodegradable and bio-absorbable polymers are a promising choice for delivery systems.

This Special Issue is focused on the latest development of novel delivery platforms based on natural and synthetic polymers.





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