



Biodegradable Polymers for Drug Delivery Applications

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Message from the Guest Editors

The use of polymers has increasingly acquired a crucial role in drug delivery systems. Biodegradable polymers can offer the possibility to select the appropriate polymeric materials based on the chemical nature of drugs and on its application. Hyaluronic acid (HA), chitosan, and polylactic acid (PLA) are some of the widely biodegradable polymers used in the drug delivery field. The size of polymers can be different in relation to the drug-loading approach and the biological target, allowing to avoid fast clearance upon intravenous administration, prolong circulation half-life, and at the same time, increasing the probability of crossing various biological barriers and preventing accumulation in capillaries and/or other organs. The use of biodegradable polymers modulates the pharmacokinetic properties of various active substances due to the subcellular size of systems. Polymers vectors can be developed with different molecular organizations, for example, linear or branched, at following different macromolecular structures, for example, micelles or nanoparticles.





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