





Special Issue Reprint

State of the Art in Biomaterials for Drug Delivery

www.mdpi.com/books/reprint/11387

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ISBN 978-3-7258-4955-0 (Hardback) ISBN 978-3-7258-4956-7 (PDF)



Nowadays, biomaterials are widely used in medicine and the medical care fields, playing increasingly important roles due to their unique structure and excellent performance. In particular, biomedical materials exhibit good biocompatibility and biodegradability, which allow for their design in drug delivery to the human body.

Biomedical materials as anticancer drug carriers can be implemented in targeted drug delivery in the human body, improve the utilization rate of the cancer drug effects, and largely reduce the side effects of anticancer drugs on normal human body cell tissue. In addition, the drug carrier can also effectively improve the properties and stability of anticancer drugs in tissues, enhance the slow release of drugs, and reduce the lack of drug use in the body. Moreover, advancements in biomaterials have improved the safety and efficacy of diagnostic, therapeutic, and theranostic approaches for various diseases. The structures and interactions between biomaterials and drugs can influence the pesticide effect and have the potential to affect cellular physiology due to the close relationship between biological systems and biomaterial features. Drug delivery systems can also provide novel solutions by developing desirable and ideal materials to control the physicochemical, biological, structural, and mechanical microenvironments for successful drug delivery.

This Special Issue focuses on biomaterials, including, but not limited to, natural materials, composite materials, functionalized nanomaterials, hydrogels, etc., for different drug delivery applications.



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