

Hybrid Approaches in Drug Delivery Systems : Leveraging Generative AI and Machine Learning for Targeted Therapy

ABOUT BOOK

AI and machine learning are transforming drug delivery by optimizing formulations, enhancing precision therapy, and enabling real-time monitoring. Traditional systems face challenges like poor bioavailability and systemic toxicity, but AI-driven models improve drug-target interactions, adaptive dosing, and nanoparticle-based delivery. Despite regulatory and data privacy concerns, AI offers promising solutions for more effective treatments. This book, Hybrid Approaches in Drug Delivery Systems, bridges AI innovations with practical applications in pharmaceuticals. It explores AI-assisted molecular modeling, predictive analytics, and IoT-integrated drug monitoring while addressing ethical and regulatory challenges. By combining computational intelligence with biomedical advancements, it aims to revolutionize precision medicine and targeted drug delivery.

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