

Impact of Artificial Intelligence in Drug Discovery and Development

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Abstract: *The field of drug discovery and development has been revolutionized by the integration of artificial intelligence (AI) technologies. AI has significantly impacted various stages of the drug development process, including target identification, lead optimization, pharmacokinetics, and toxicity prediction. This review paper provides an overview of the impact of AI in drug discovery and development, highlighting the advancements, challenges, and future prospects. It discusses the application of machine learning, deep learning, and other AI techniques in accelerating the drug discovery process, improving the efficiency of clinical trials, and reducing the overall cost of drug development. Additionally, this review examines the ethical and regulatory considerations associated with the use of AI in drug development. Overall, this paper emphasizes the transformative potential of AI in revolutionizing the pharmaceutical industry and improving patient outcomes.*

Keywords: Artificial intelligence, Computer assisted drug discovery, Machine learning, Toxicity Prediction, Clinical Trials, Ethical Considerations, Regulatory Frameworks