

AI-Powered Advances in Pharmacology

Part of the Advances in Medical Technologies and Clinical Practice Book Series

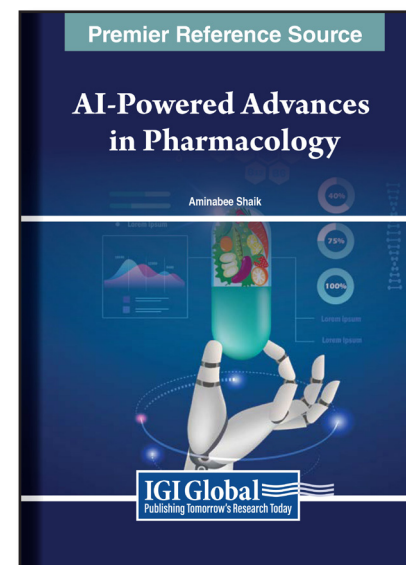
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Description:

In the field of pharmaceutical sciences, the integration of artificial intelligence (AI) has emerged as a groundbreaking force, propelling the field into uncharted territories of discovery and innovation. As traditional approaches in drug discovery and development encounter new challenges, the need for cutting-edge technologies becomes increasingly apparent. **AI-Powered Advances in Pharmacology** offers an insightful exploration of this critical intersection between AI and pharmacological research. This book delves into how AI technologies are reshaping the understanding of diseases, predicting drug responses, and optimizing therapeutic interventions. It navigates through the relationship between AI algorithms, big data analytics, and traditional pharmacological methodologies, promising to accelerate drug development and usher in a new era of precision medicine.

The primary objective of **AI-Powered Advances in Pharmacology** is to conduct a thorough exploration of the integration of artificial intelligence (AI) into pharmacological research, shedding light on its transformative impact on drug discovery, development, and personalized medicine. This comprehensive overview aims to serve as a valuable resource for researchers, practitioners, and students in the field, bridging the gap between traditional pharmacological approaches and AI methodologies. Through case studies and discussions of emerging trends, the book contributes to the evolving landscape of pharmacology, fostering a deeper understanding of diseases, optimizing therapeutic interventions, and shaping the future of precision medicine. By providing practical insights, it aims to inspire further advancements at the intersection of artificial intelligence and pharmacology.

Tailored for a diverse audience within the fields of pharmacology, pharmaceutical sciences, and artificial intelligence, **AI-Powered Advances in Pharmacology** addresses researchers, scientists, practitioners, pharmacists, clinicians, graduate students, and academics. Researchers and scientists engaged in drug discovery gain valuable insights into how AI technologies can expedite the identification of potential drug candidates. Practitioners in the pharmaceutical industry benefit from the book's exploration of how AI contributes to personalized medicine and treatment optimization. Additionally, graduate students and academics in pharmacology and related disciplines find the book to be a comprehensive resource, providing a nuanced understanding of the integration of AI into current research practices. By catering to this broad spectrum, the book aims to foster collaboration and inspire further advancements at the intersection of artificial intelligence and pharmacology.



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Topics Covered:

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- Blockchain in Pharmaceutical Data Management
- Deep Reinforcement Learning in Pharmacokinetics
- Explainable AI in Pharmacology
- Genomic Data Integration for Precision Pharmacology
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Subject: Medicine & Healthcare

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