# Converging Pharmacy Science and Engineering in Computational Drug Discovery

Part of the Advances in Healthcare Information Systems and Administration Book Series

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**Converging Pharmacy Science and Engineering in Computational Drug Discovery**

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## Description:

The world of pharmaceutical research is moving at lightning speed, and the age-old approach to drug discovery faces many challenges. It's a fascinating time to be on the cutting edge of medical innovation, but it's certainly not without its obstacles. The process of developing new drugs is often time-consuming, expensive, and fraught with uncertainty. Researchers are constantly seeking ways to streamline this process, reduce costs, and increase the success rate of bringing new drugs to market. One promising solution lies in the convergence of pharmacy science and engineering, particularly in computational drug discovery.

**Converging Pharmacy Science and Engineering in Computational Drug Discovery** presents a comprehensive solution to these challenges by exploring the transformative synergy between pharmacy science and engineering. This book demonstrates how researchers can expedite the identification and development of novel therapeutic compounds by harnessing the power of computational approaches, such as sophisticated algorithms and modeling techniques. Through interdisciplinary collaboration, pharmacy scientists and engineers can revolutionize drug discovery, paving the way for more efficient and effective treatments. This book is an invaluable resource for pharmaceutical scientists, researchers, and engineers seeking to enhance their understanding of computational drug discovery. This book inspires future innovations by showcasing cutting-edge methodologies and innovative research at the intersection of pharmacy science and engineering. It contributes to the ongoing evolution of pharmaceutical research. It offers practical insights and solutions that will shape the future of drug discovery, making it essential reading for anyone involved in the pharmaceutical industry.
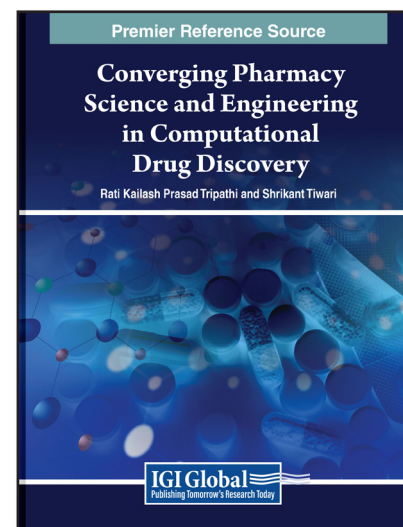
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## Topics Covered:

- Artificial Intelligence in Drug Discovery
- Big Data Analytics
- Biopharmaceutical Innovations and Delivery Systems
- Case Studies in Computational Drug Discovery
- Computational Chemistry for Drug Optimization
- Data Management
- Drug Repurposing
- Engineering Approaches in Pharma Research
- Ethical and Legal Considerations
- High-Throughput Screening Techniques
- Industry Perspectives and Success Stories
- Introduction to Computational Drug Discovery
- Molecular Modeling and Simulation
- Multidisciplinary Collaboration in Drug Discovery
- Pharmacodynamics
- Pharmacokinetics
- Virtual Screening

**Subject:** Medical & Healthcare

**Classification:** Edited Reference

**Readership Level:** Advanced-Academic Level (Research Recommended)

**Research Suitable for:** Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners