

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

Approved by Pharmacy Council of India, New Delhi.

Coimbatore -641035



COURSE NAME : BIO CHEMISTRY

D.PHARM/ II YEAR

TOPIC: SCOPE OF BIO CHEMISTRY IN PHARMACY

DESIGN THINKING STAGES IN CLASSIFICATION

Empathize: Understand the users — in this case, students, pharmacists, or researchers who use the alphabetical classification system.

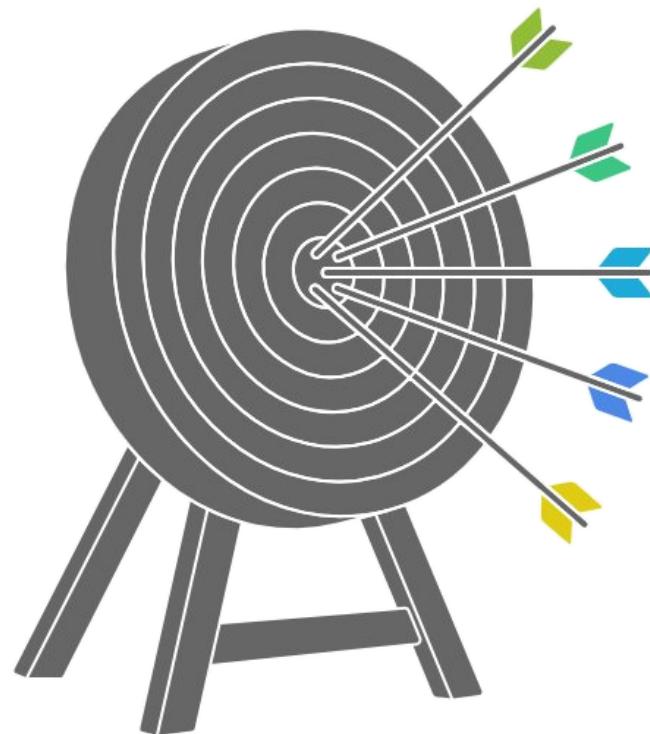
Define: Clearly define the problem based on the insights from the empathize stage.

Ideate: Generate possible solutions or improvements. **Prototype:** Create a

tangible version of your solution **Test:** Evaluate the prototype with real users.

MINDMAP

Biochemistry in Pharmacy



Biochemistry

Core science of life processes



Drug Discovery

Identifying potential drug candidates



Drug Development

Testing and refining drug formulations



Clinical Applications

Using drugs in patient care

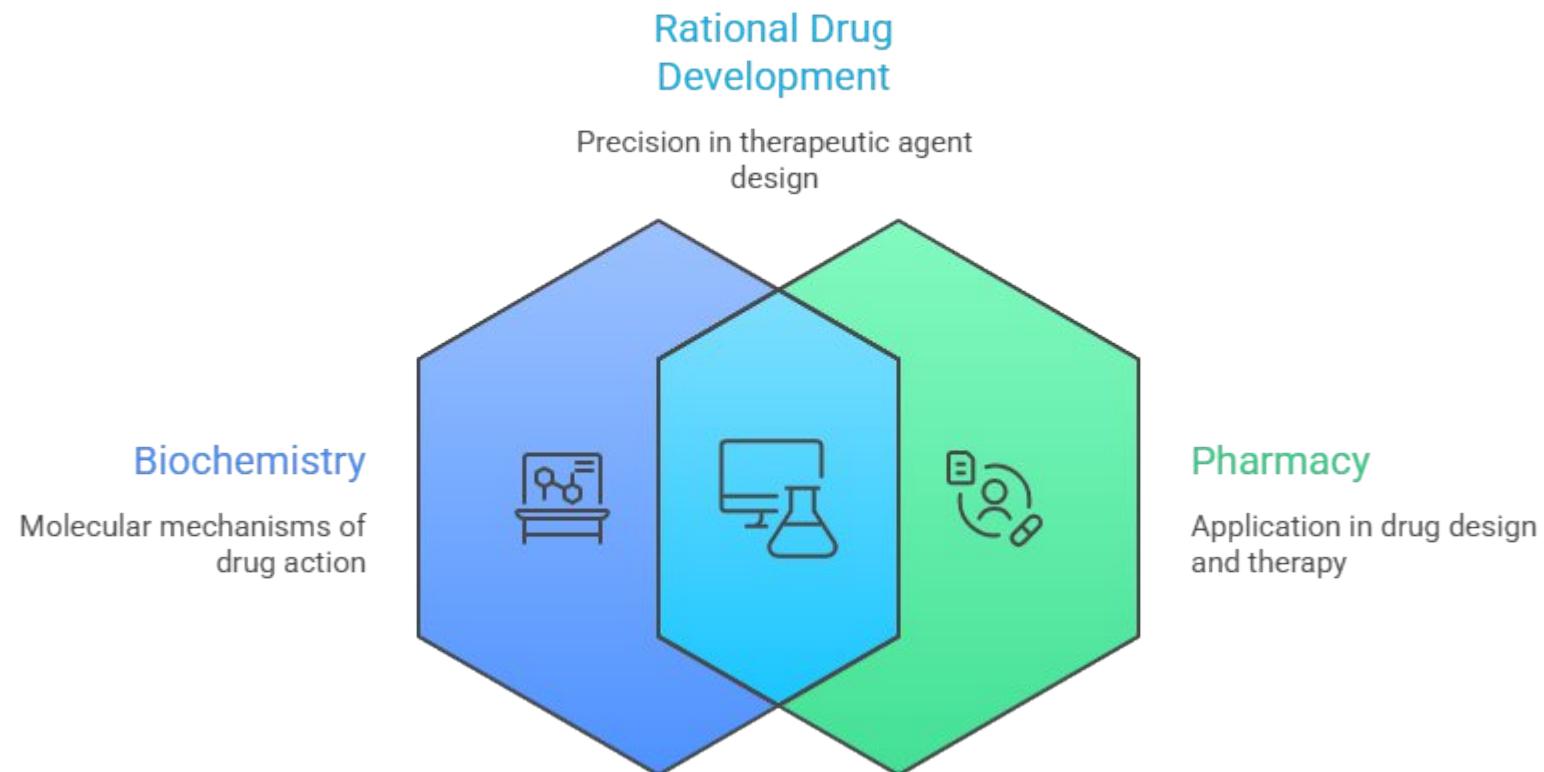


Patient Outcomes

Improving health and well-being

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Where Biochemistry Meets Pharmacy Innovation



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INTRODUCTION

Drug Excretion

Explains how drugs are eliminated from the body.



Drug Distribution

Describes how drugs spread throughout the body.



Drug-Target Interactions

Elucidates molecular mechanisms of drug-target binding.



Drug Metabolism

Details how drugs are broken down in the body.



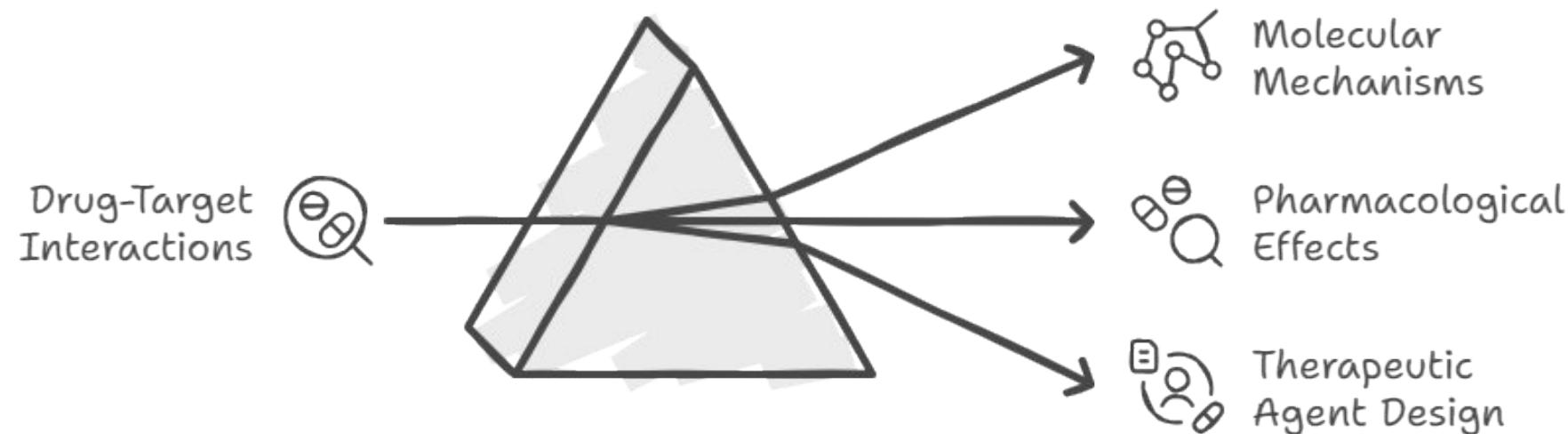
Drug Absorption

Explains how drugs enter the bloodstream.



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Unveiling Drug-Target Interactions

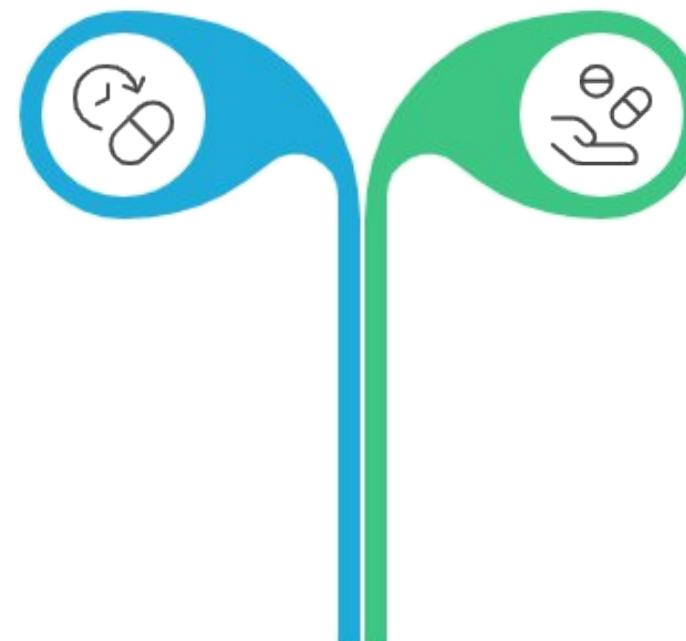


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Unveiling Drug Actions Through Biochemistry

Pharmacokinetics

Pharmacokinetics studies drug movement within the body.

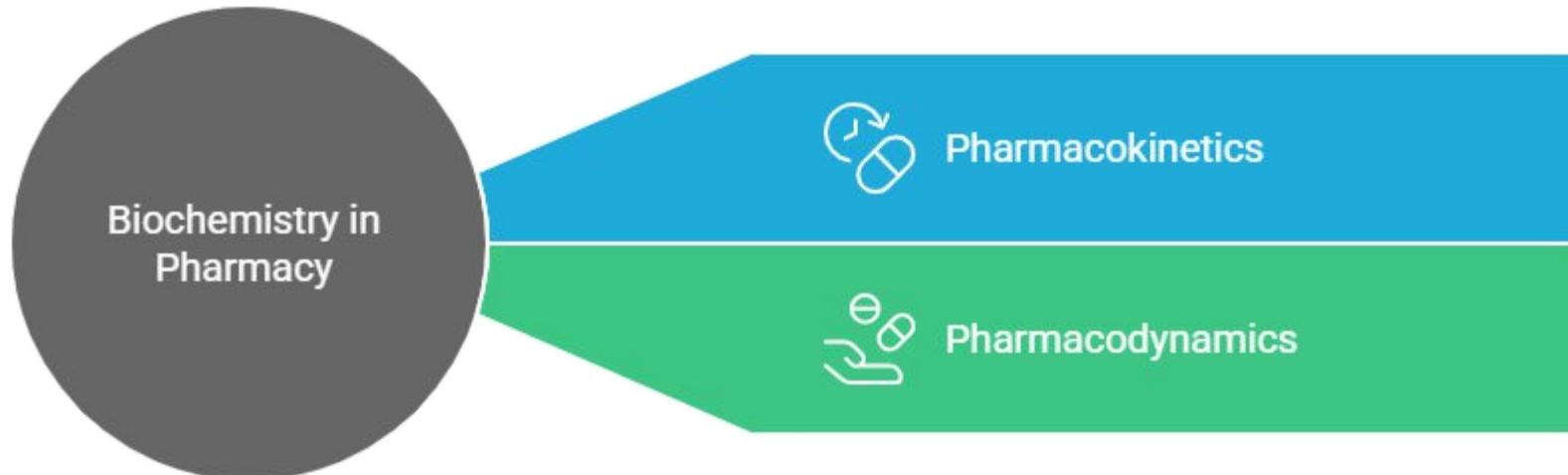


Pharmacodynamics

Pharmacodynamics examines drug effects on the body.

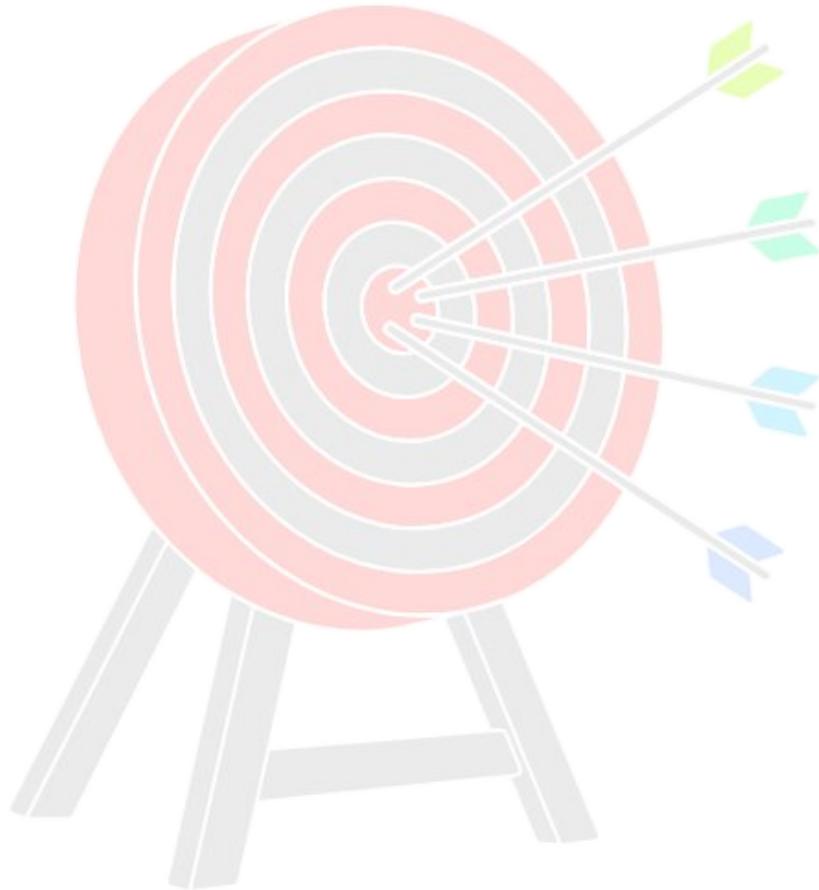
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Unveiling Drug Actions Through Biochemistry



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Drug Pharmacokinetics



Drug Absorption

Entry of drugs into the bloodstream



Drug Distribution

Movement of drugs throughout the body



Drug Metabolism

Transformation of drugs by enzymes

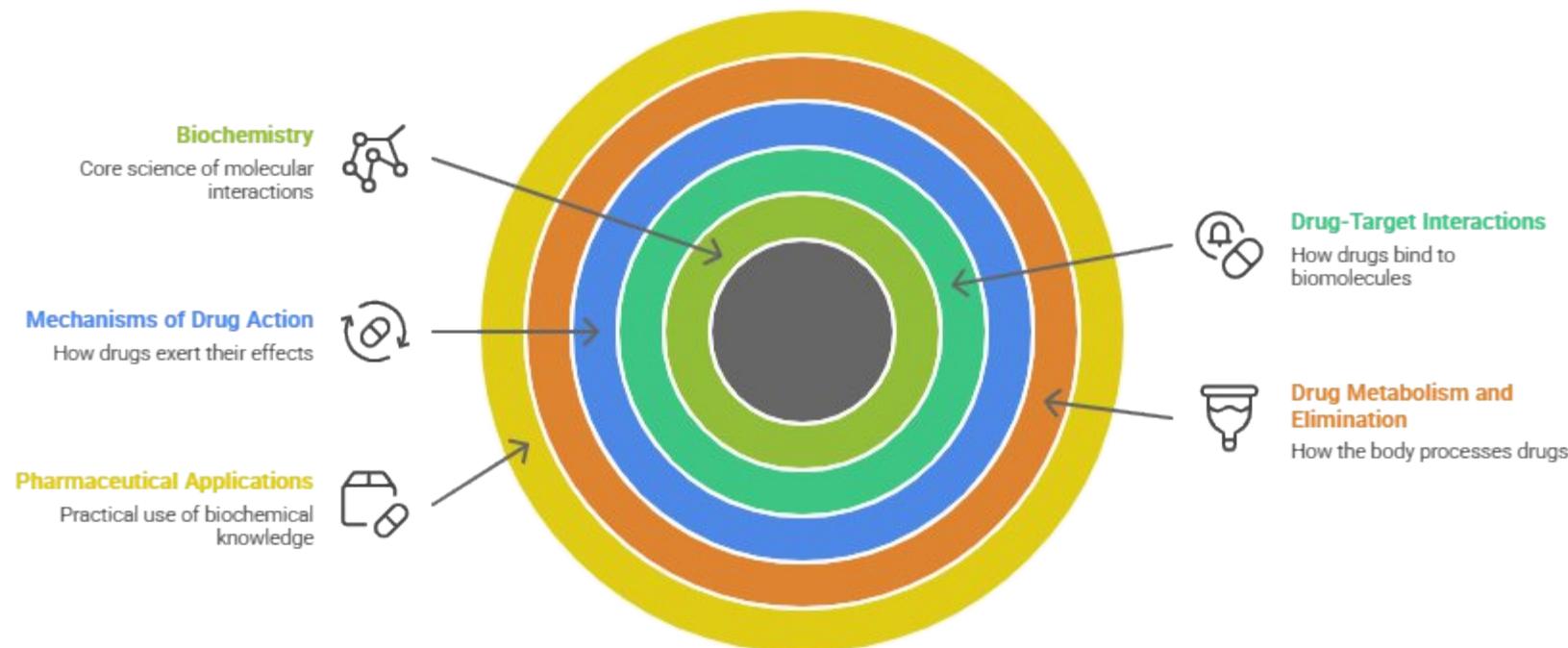


Drug Excretion

Elimination of drugs from the body

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Biochemistry in Pharmacy



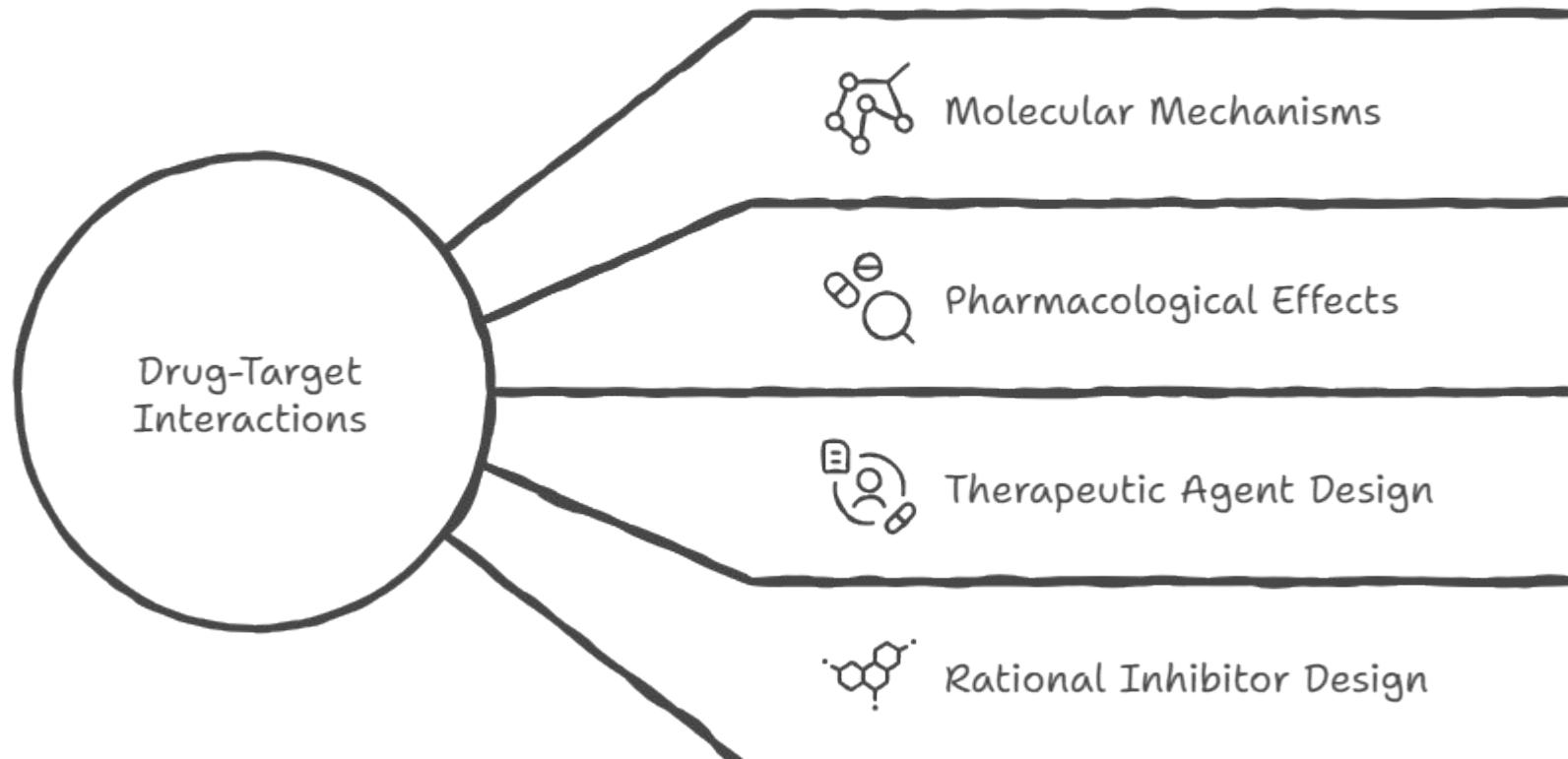
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Foundations of Pharmacy



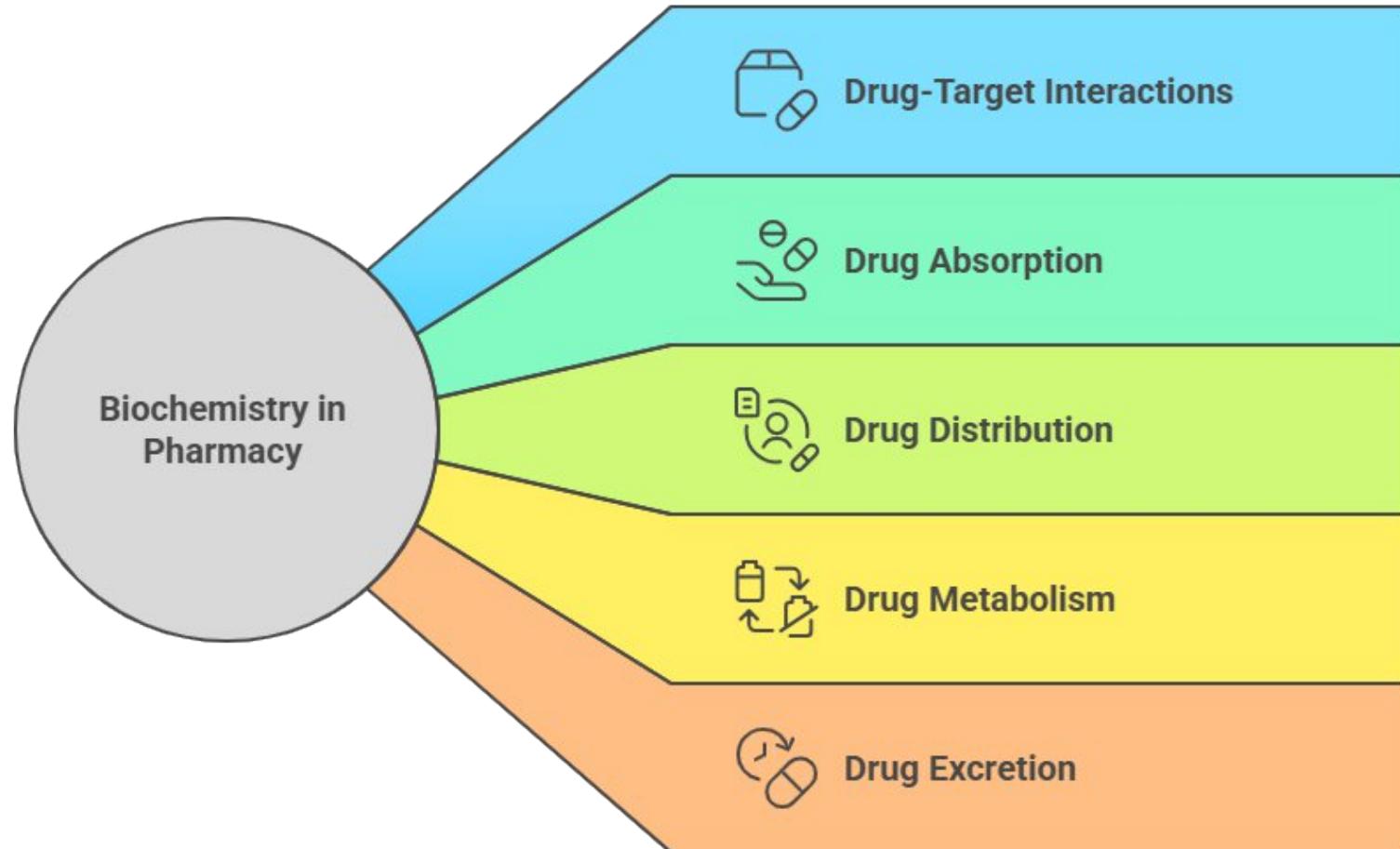
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Unveiling Drug-Target Interactions



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Unveiling Drug Interactions with Biochemistry



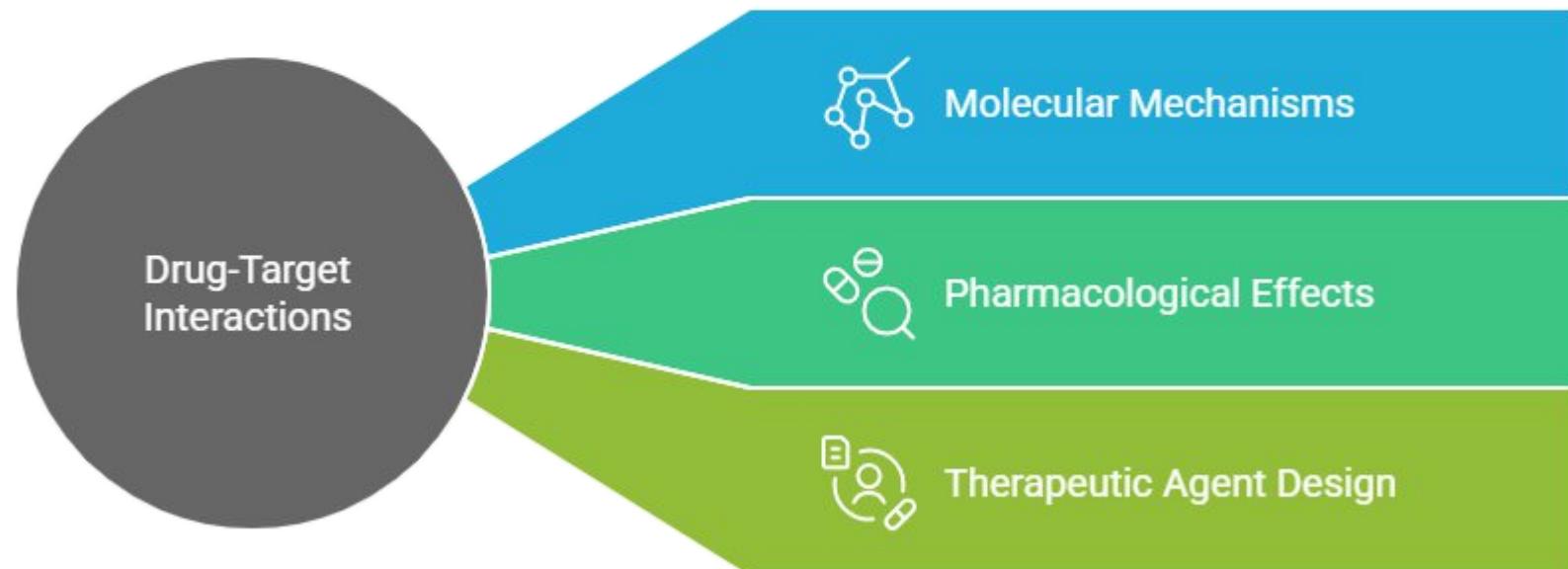
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Unveiling Drug-Target Interactions



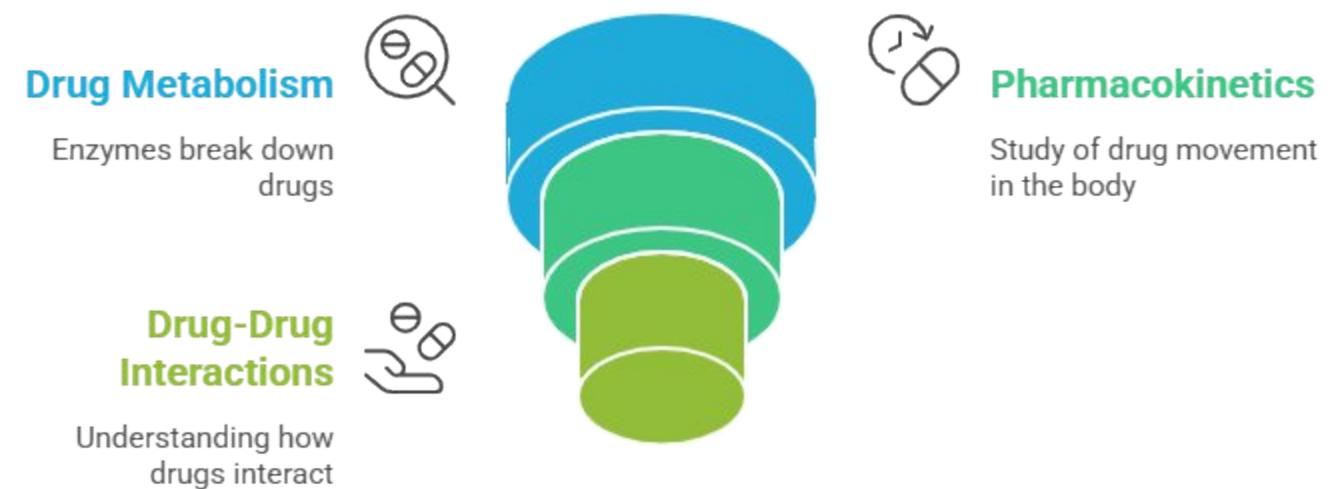
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Unveiling Drug-Target Interactions



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Drug Metabolism and Pharmacokinetics Funnel



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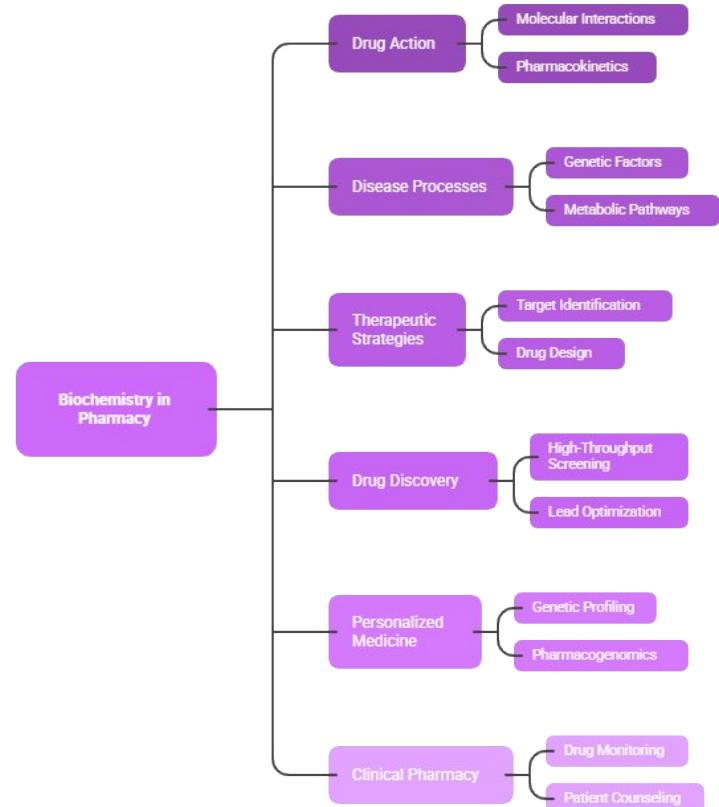
Drug Discovery Process



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ASSESSMENT

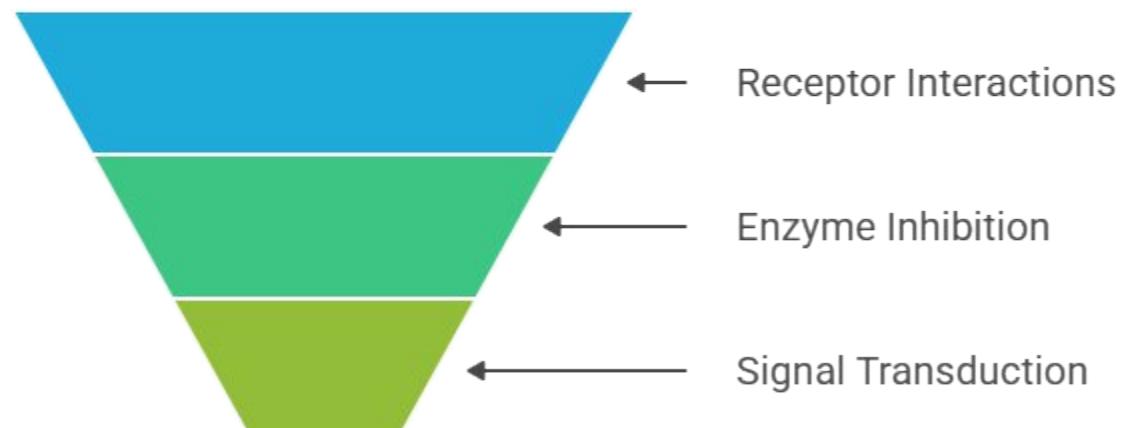
Role and Scope of Biochemistry in Pharmacy



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Drug Action Mechanisms

Drug Administration



Therapeutic Effect

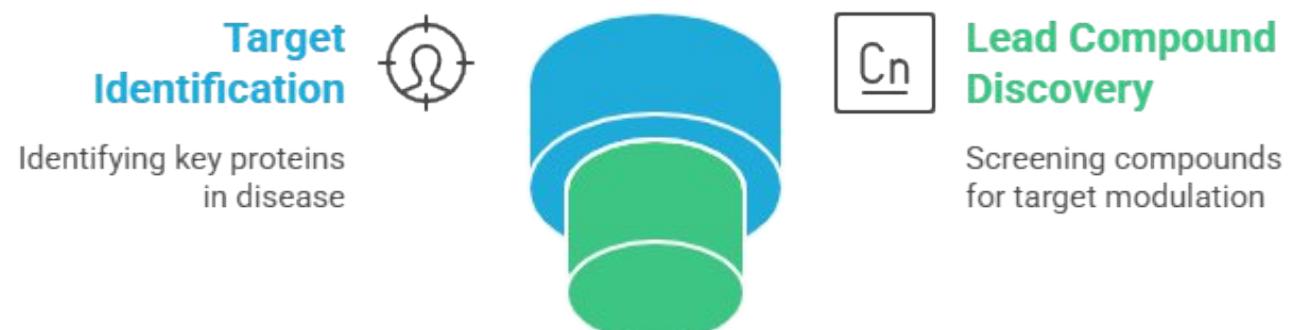
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Drug Absorption Factors



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Drug Design and Development Process



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REFERENCES

- 1. Lehninger Principles of Biochemistry – Nelson & Cox**
 - Best for concepts, pathways, and molecular understanding
- 2. Biochemistry – Jeremy M. Berg, John L. Tymoczko, Gregory Gatto**
 - Clear explanations with clinical relevance
- 3. Harper's Illustrated Biochemistry – Rodwell et al.**
 - Very popular for **medical students**, exams, and clinical correlation
- 4. Textbook of Biochemistry – U. Satyanarayana & U. Chakrapani**
 - Excellent for **Indian curricula**, easy language, exam-oriented
- 5. Biochemistry – Donald Voet & Judith Voet**
 - Detailed and advanced; good for in-depth study



Thank You