

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

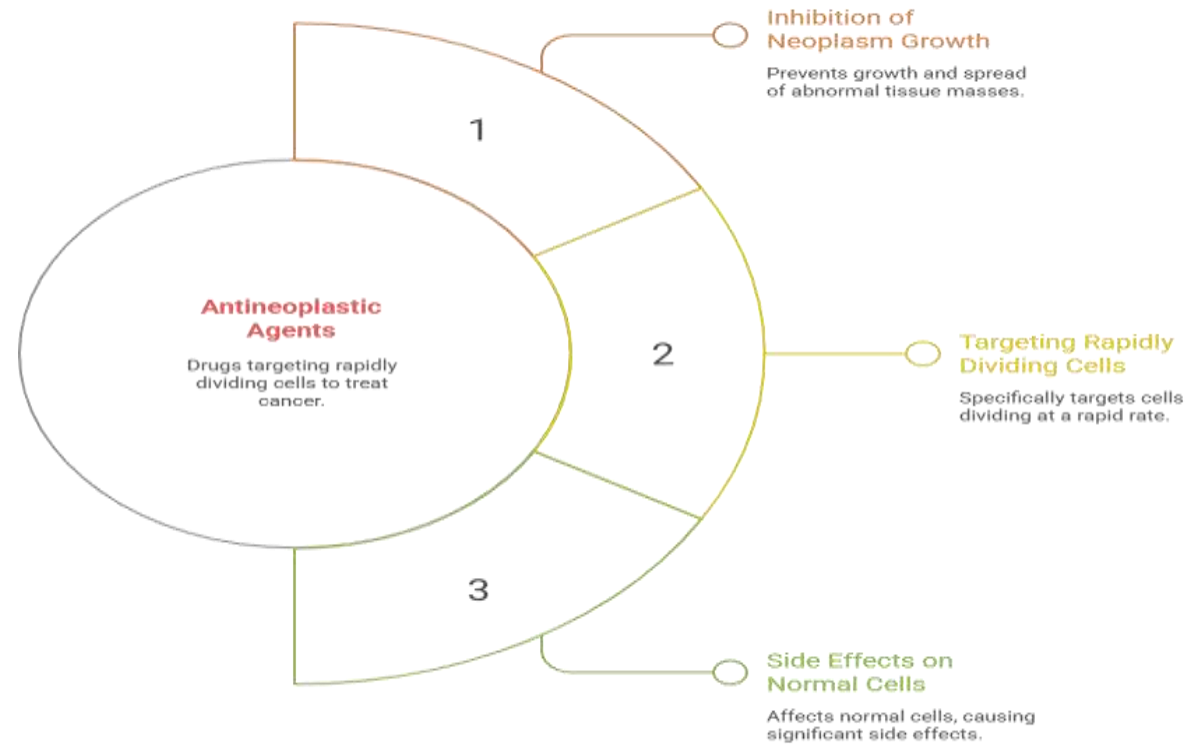
COURSE NAME : MEDICINAL CHEMISTRY II (BP 502 T)

III YEAR / V SEM

TOPIC 1 :ANTINEOPLASTICS

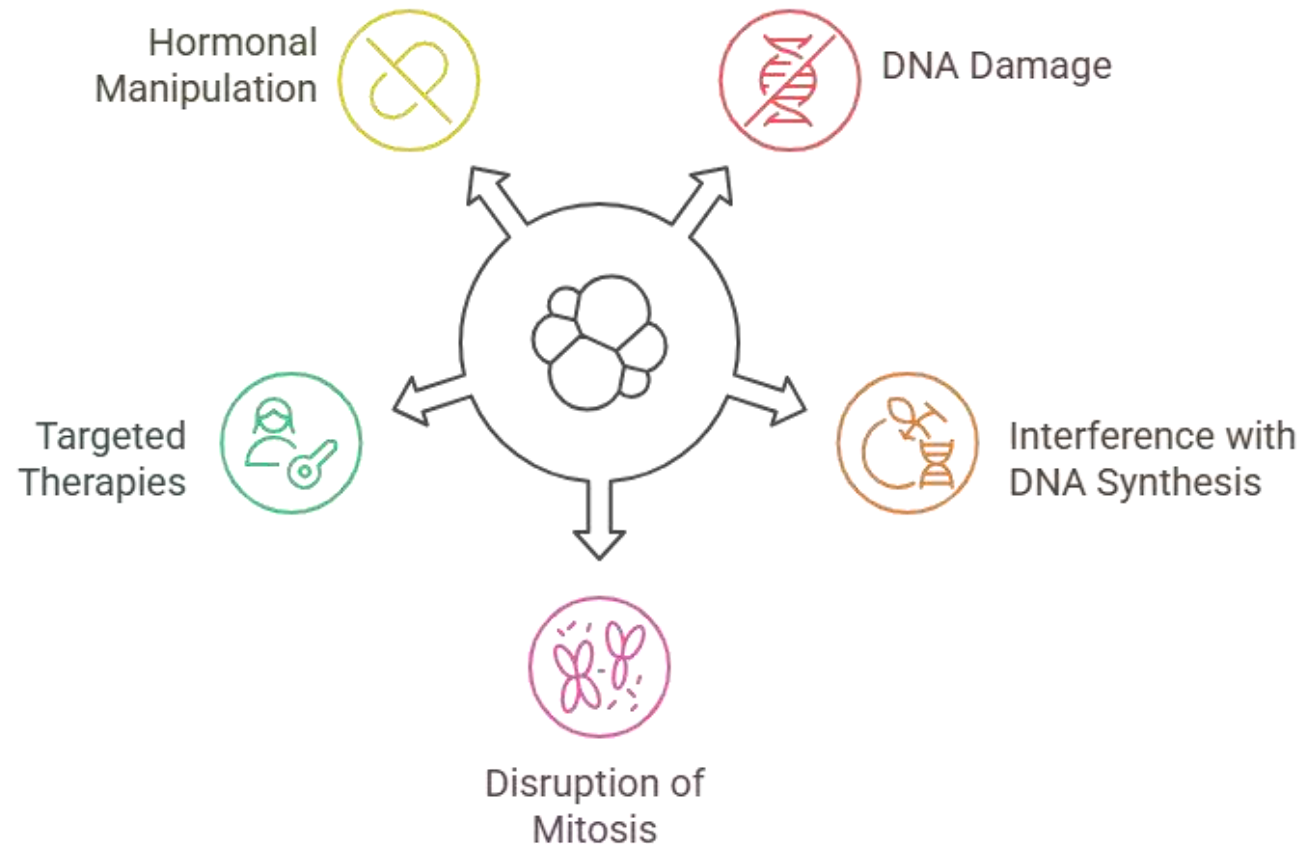


Introduction to anti neoplastic agents



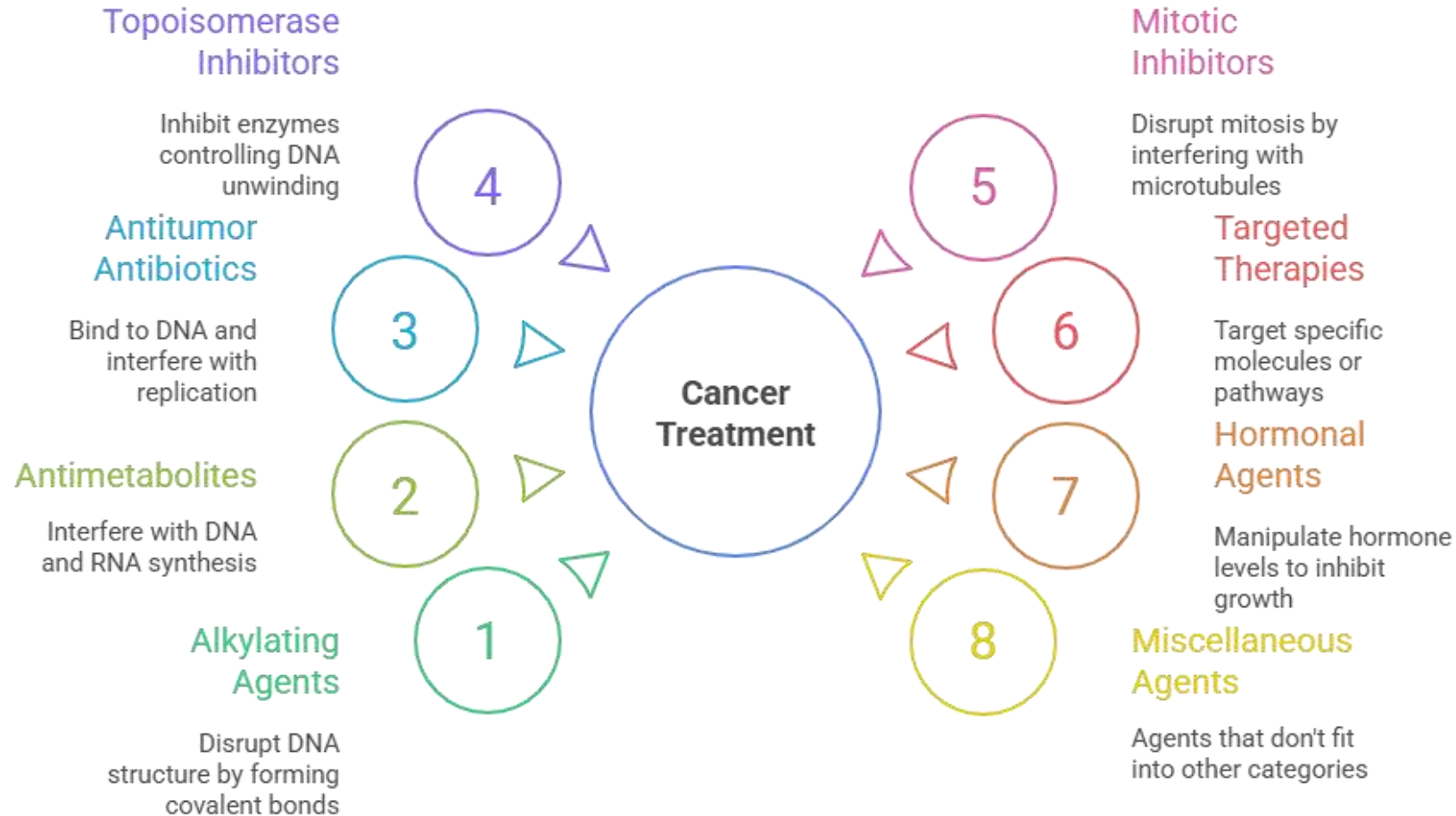
Made with  Napkin

Antineoplastic Agent Mechanisms



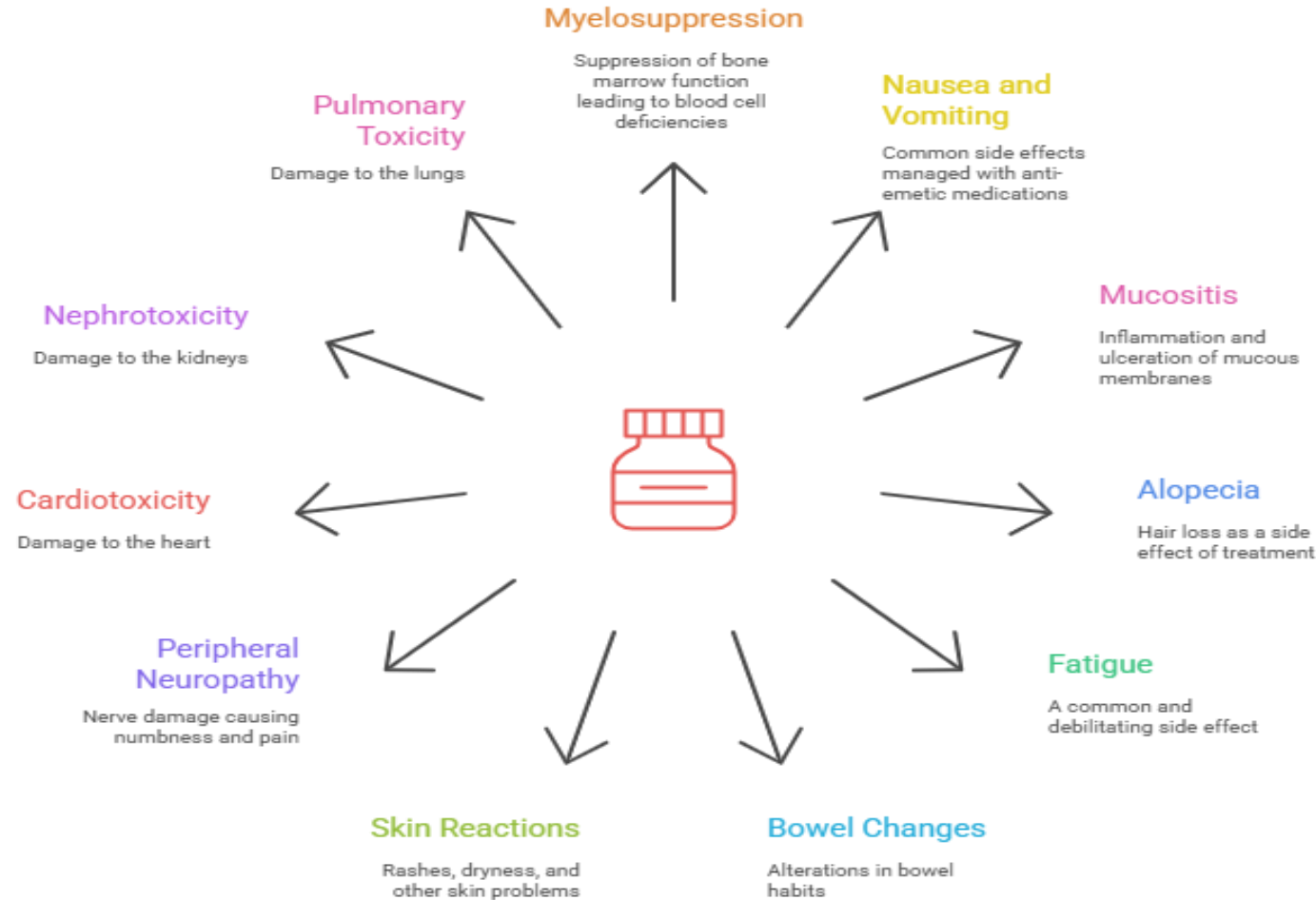
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Classification of antineoplastic agents

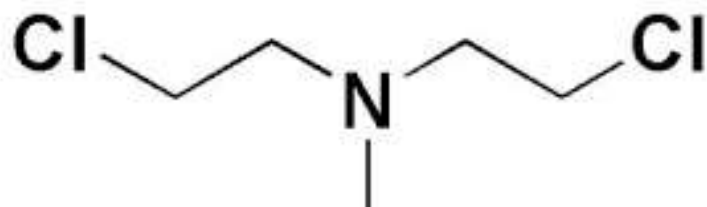


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Antineoplastic Agent Side Effects

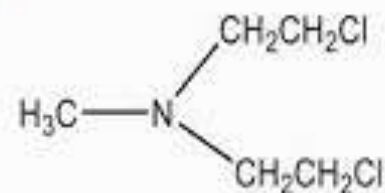


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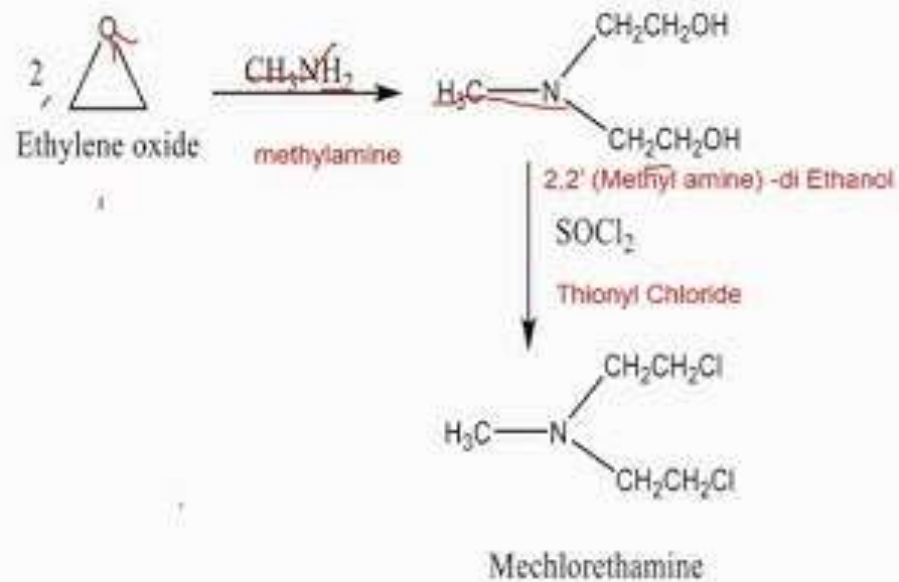


Mechlorethamine

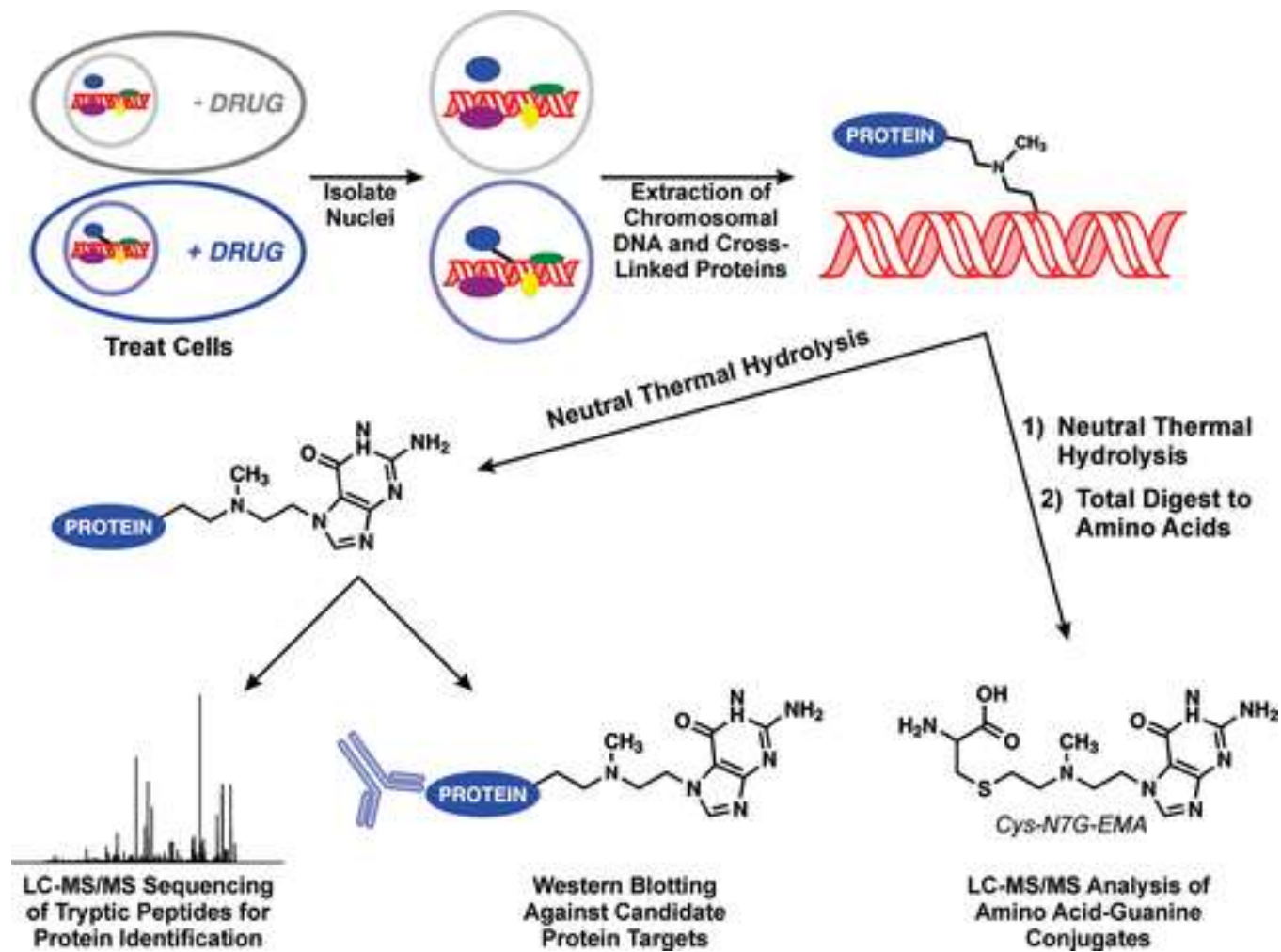
Mechlorethamine



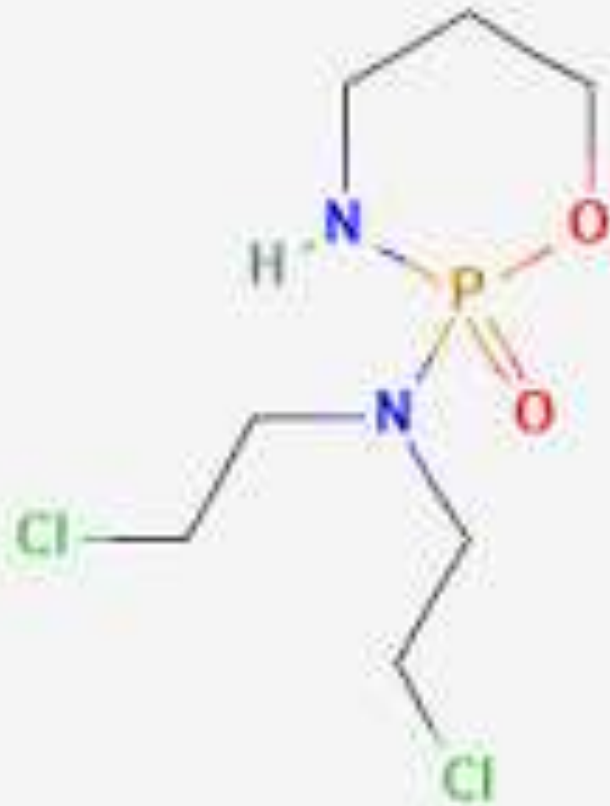
Synthesis:



MECHANISM OF ACTION

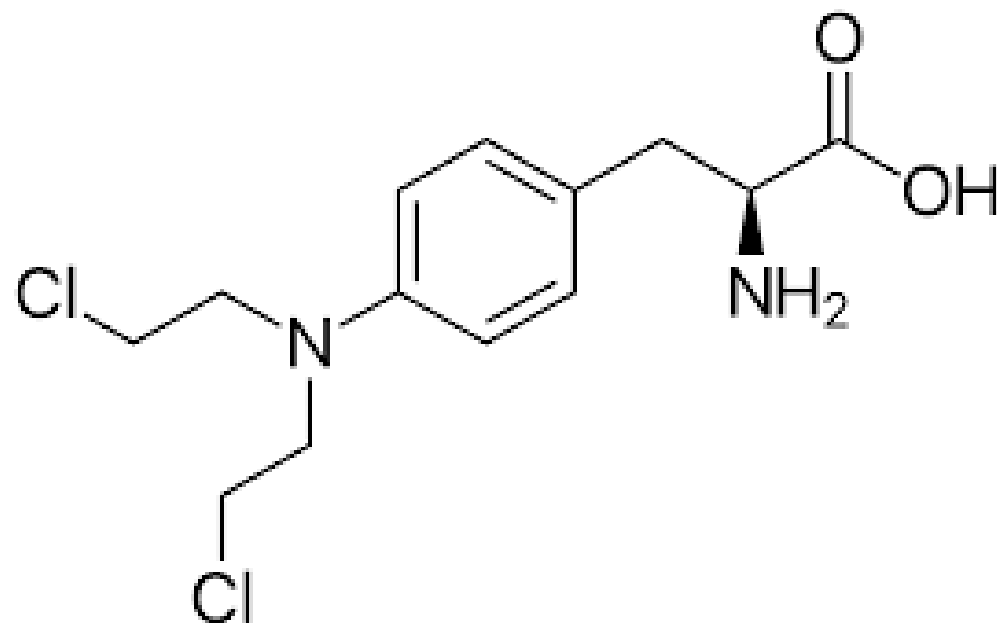


CYCLOPHOSPHAMIDE

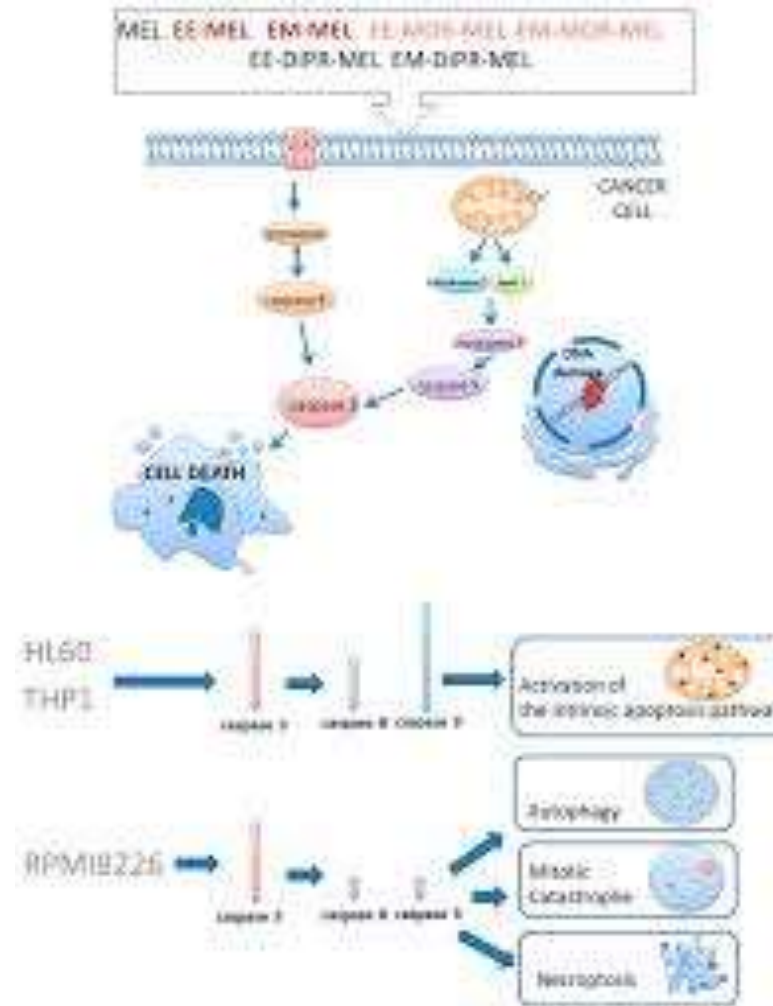




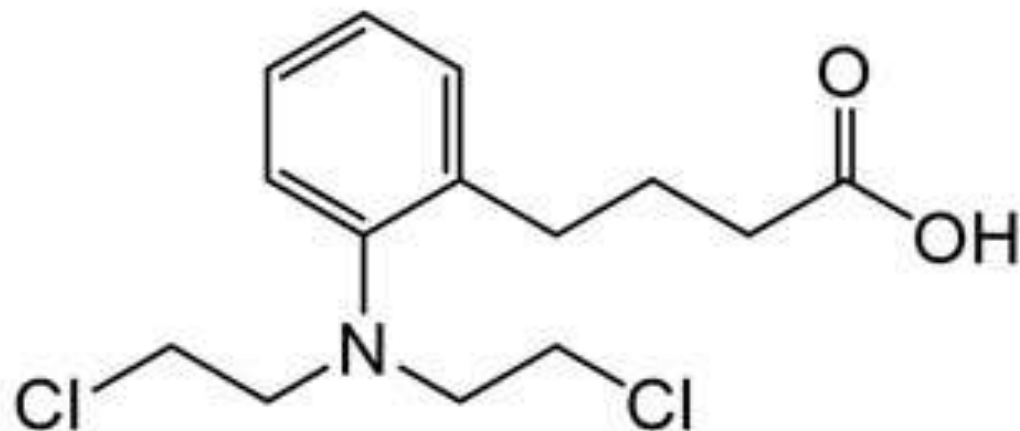
MELPHALAN



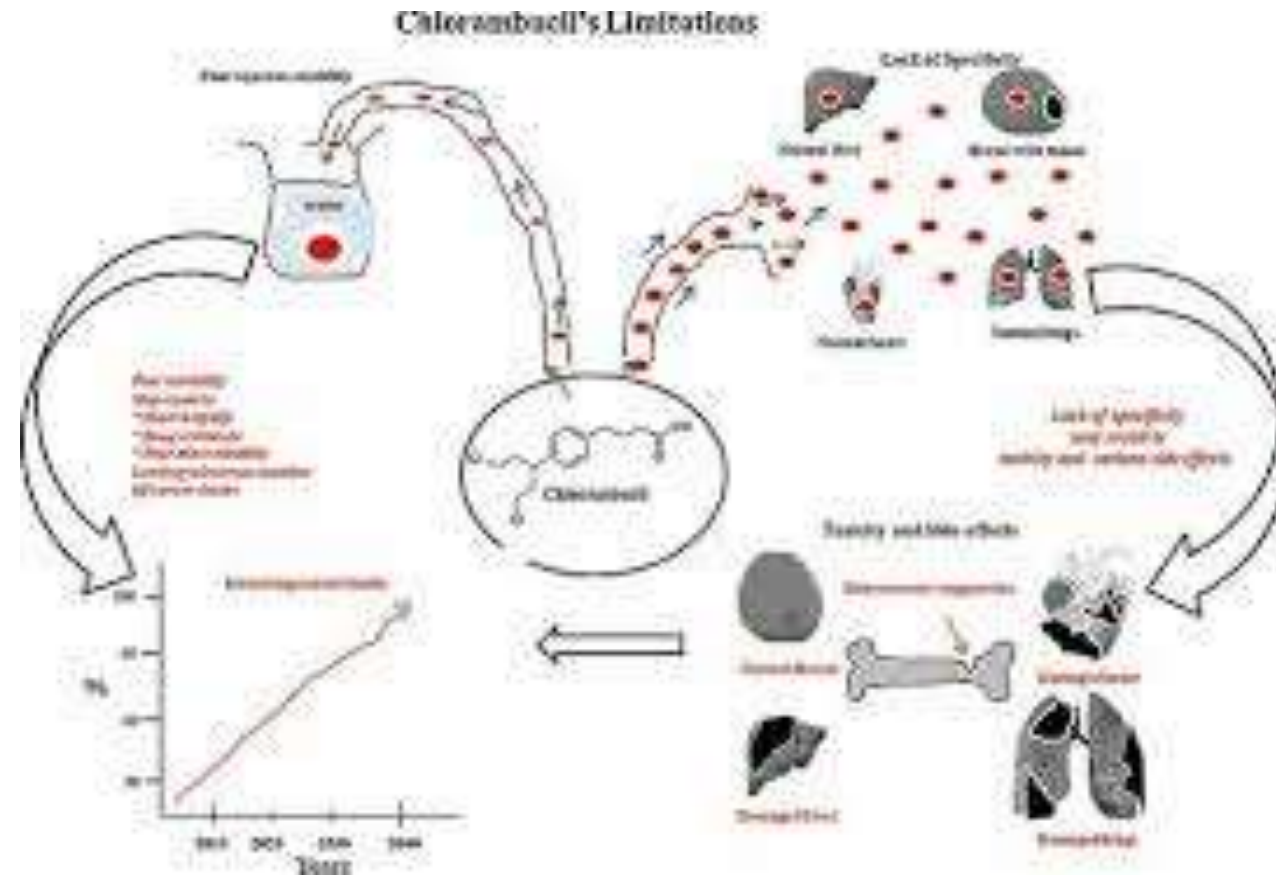
MECHANISM



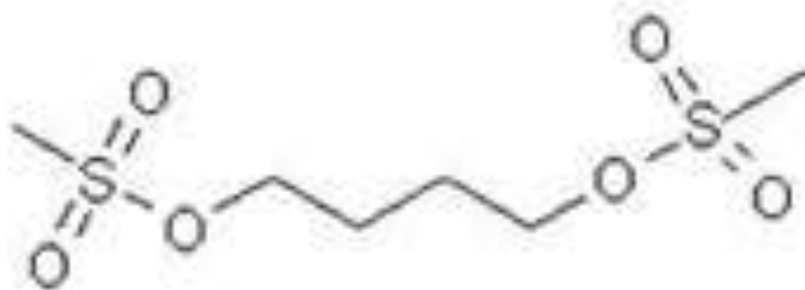
CHLORAMBUCIL



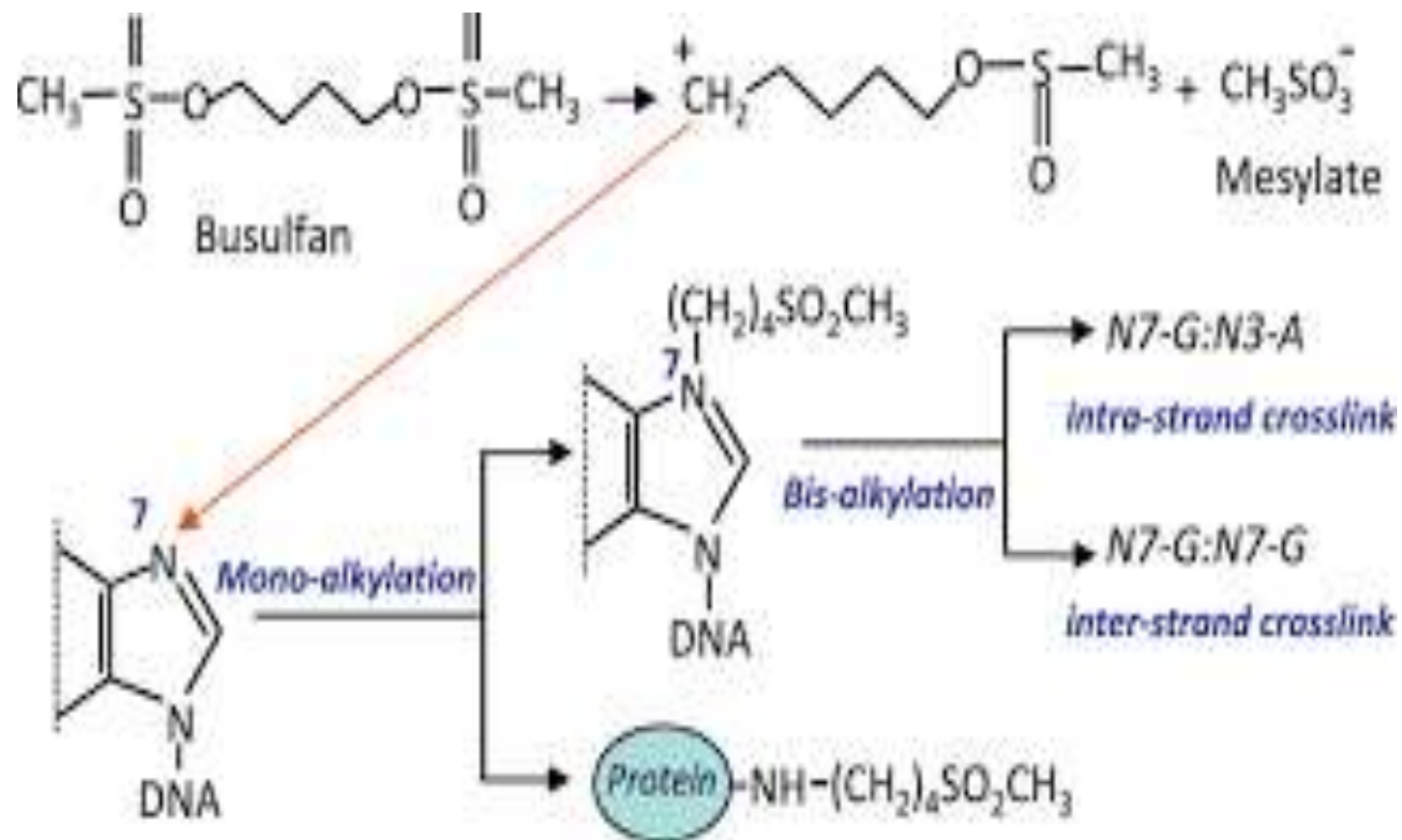
MECHANISM OF ACTION



BUSULFAN



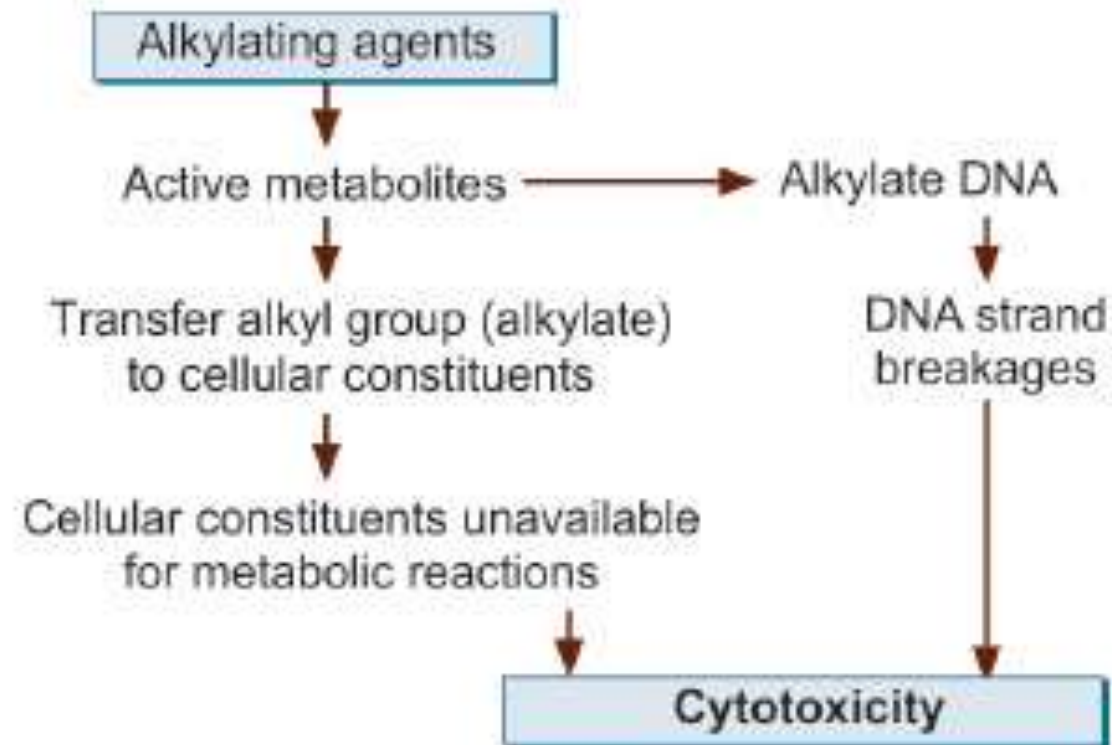
MECHNISM OF ACTION



ASSESSMENTS

Which class of antineoplastic agents works by cross-linking DNA strands, directly interfering with DNA replication and transcription, regardless of the cell cycle phase?

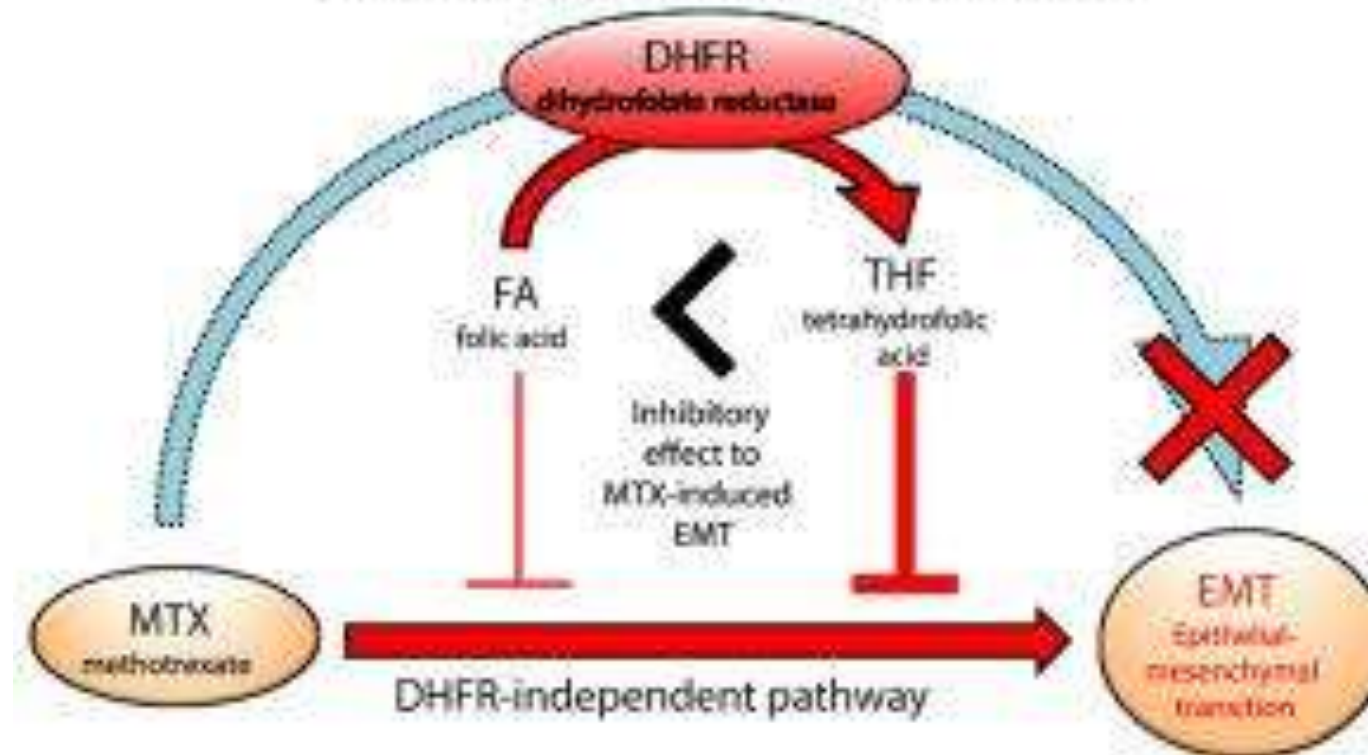




The dose-limiting toxicity for the antimetabolite drug Methotrexate, which inhibits dihydrofolate reductase, is typically which of the following?



In A549 cells, { DHFR may play an important role in prevention to MTX-induced EMT via conversion of FA into THF
DHFR may not be involved in MTX-induced EMT



REFERENCES

1. Goodman & Gilman's: The Pharmacological Basis of Therapeutics

- Edition:** 14th edition (2021)
- Details:** Comprehensive coverage of antineoplastic agents, mechanisms of action, uses, and adverse effects.
- Chapters:** “Antineoplastic Drugs” and “Hormones and Related Drugs.”

2. Katzung & Trevor's Basic and Clinical Pharmacology

- Edition:** 16th edition (2021)
- Details:** Simplified explanations of drug classes, mechanisms, clinical uses, and toxicity.
- Chapters:** “Antineoplastic Drugs.”

THANK YOU!