

Brainstorm

Brainstorming is a group creative technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members.

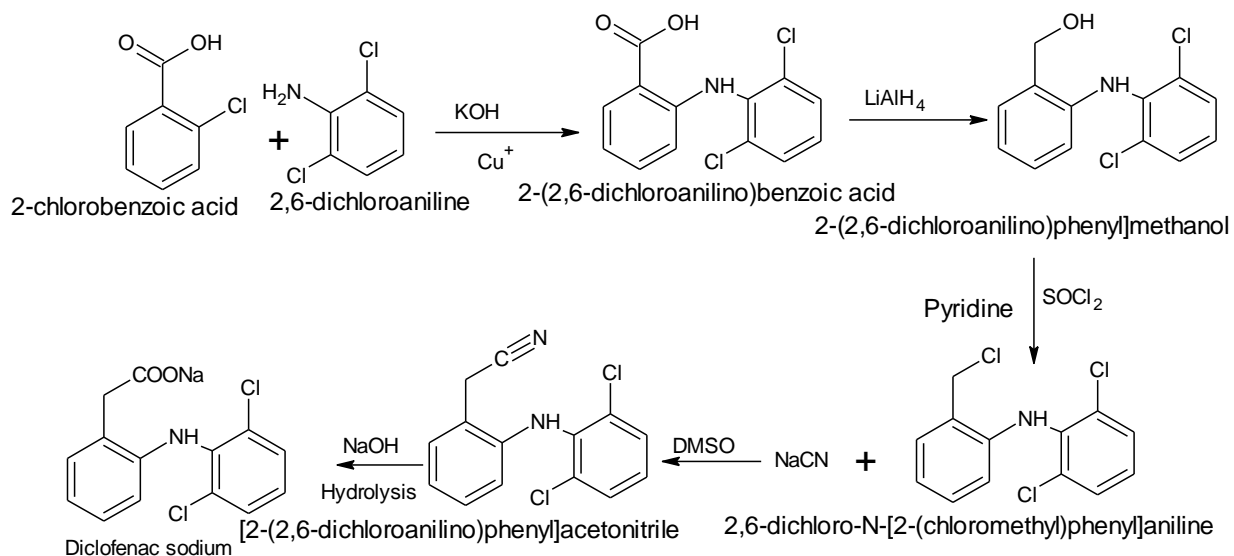
The Catalyst Club

Activity: Development of reaction database

Objectives:

1. To identify reactions that are used to produce different types of pharmaceutical intermediates & products.
2. To facilitate the choice of the reaction conditions.
3. To evaluate the reaction pathway in terms of yield, cost and sustainability metrics.

Synthesis of diclofenac: (NSAID's)



The Analytical Club

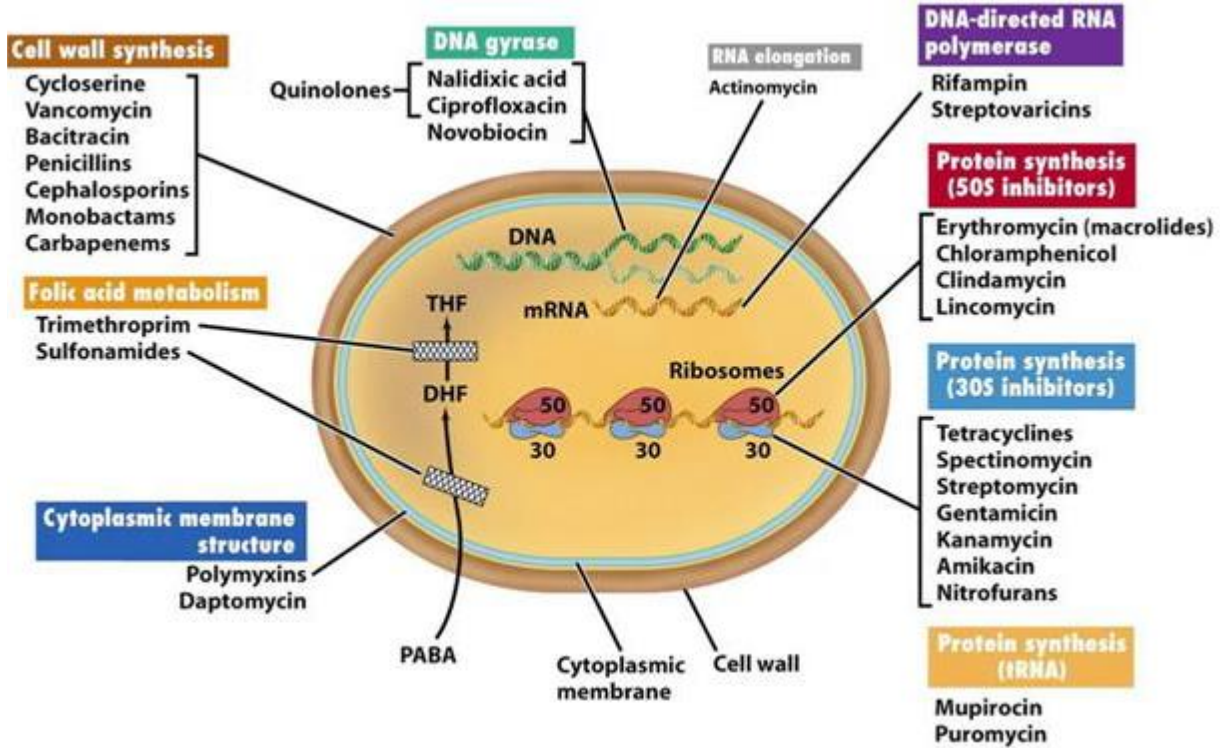
Activity: Introduction to modern analytical instruments and its application in pharmaceutical Industry.

Programme Objectives: -

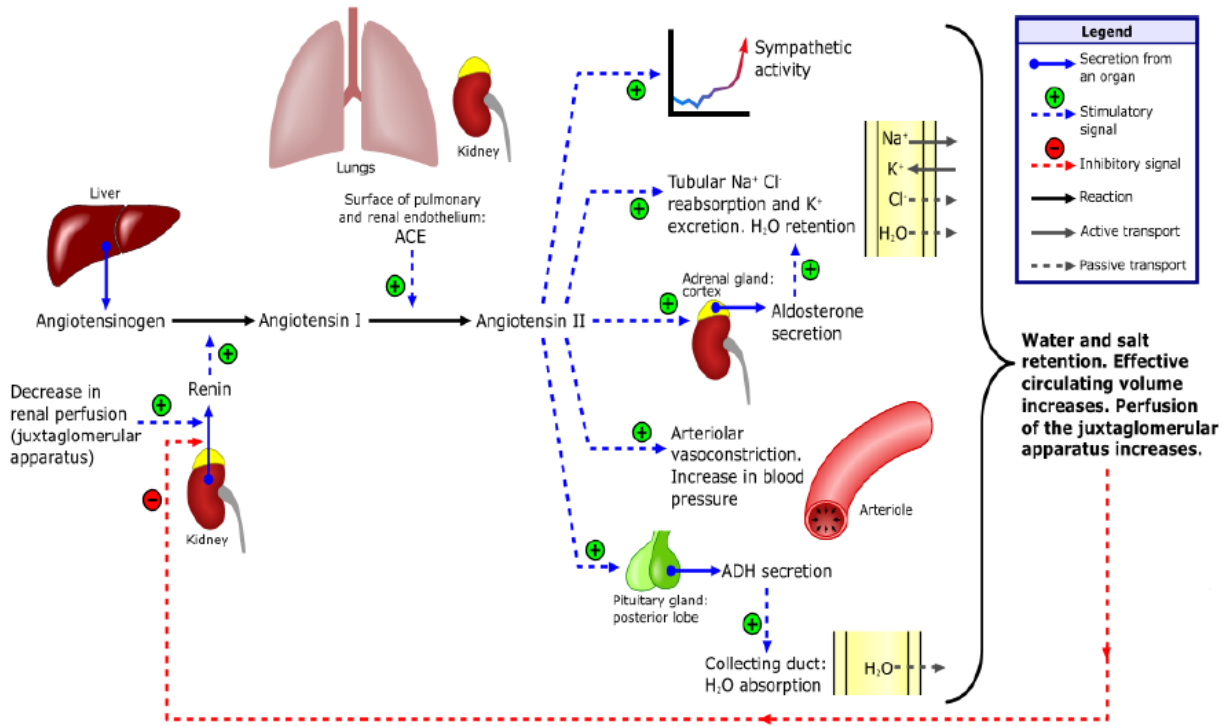
The objectives of the programme are to enable the students to:

1. Appraise the latest advances in the field of Pharmaceutical Analysis
2. Discuss the principles of different analytical techniques and apply them in professional practice
3. To proficiently use various analytical instruments for analysis of drugs and pharmaceuticals.

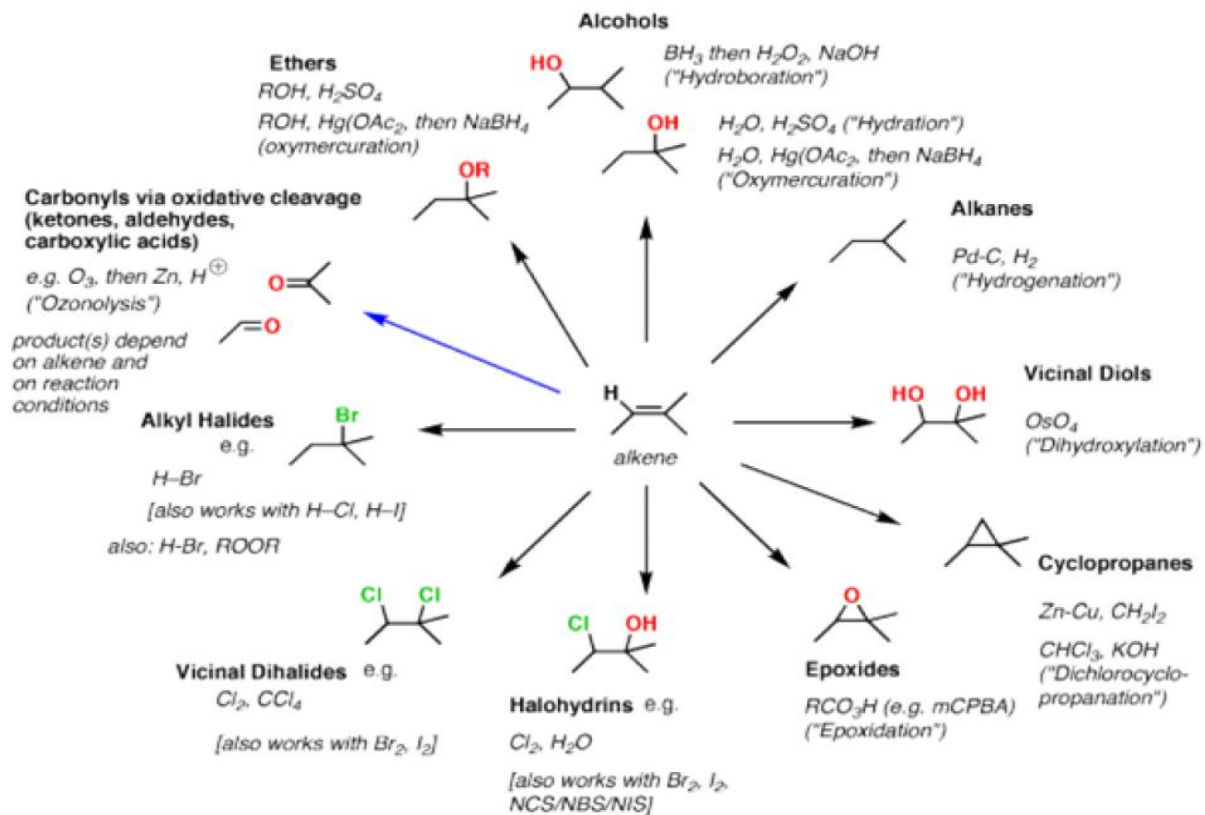
MIND MAP



Mechanism action of antibiotics

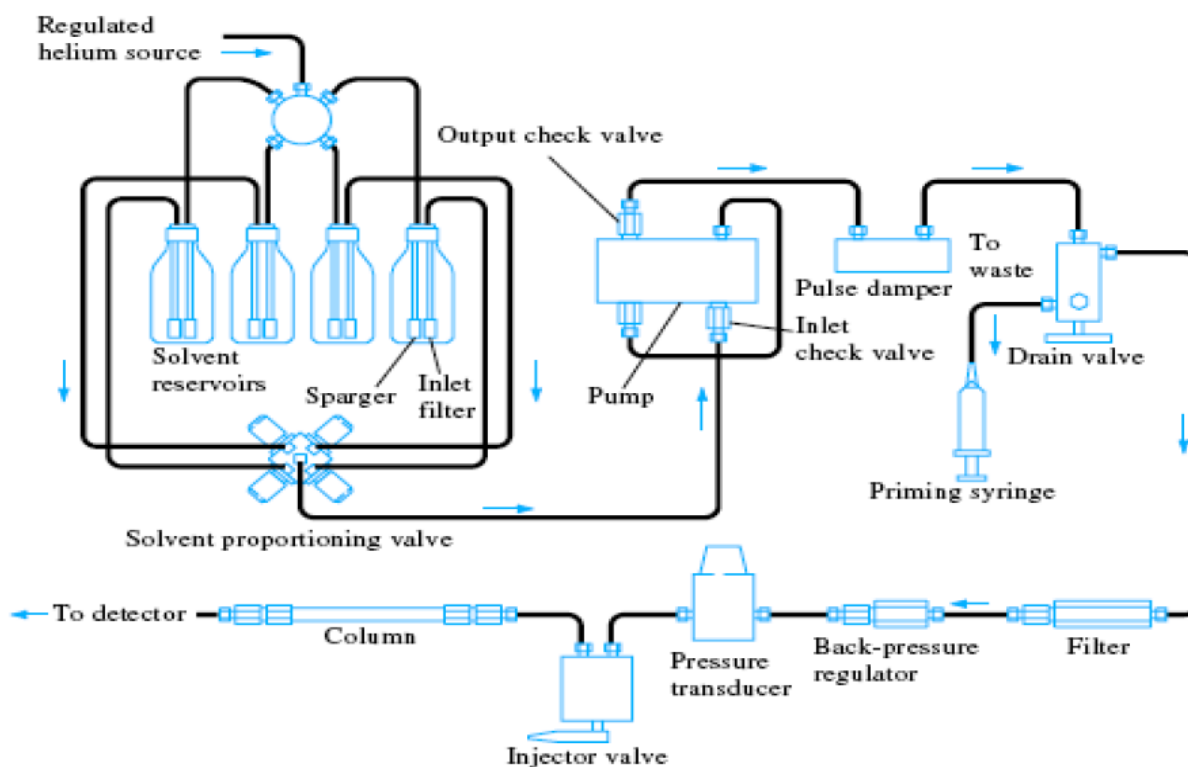


Renin-angiotensin-aldosterone system

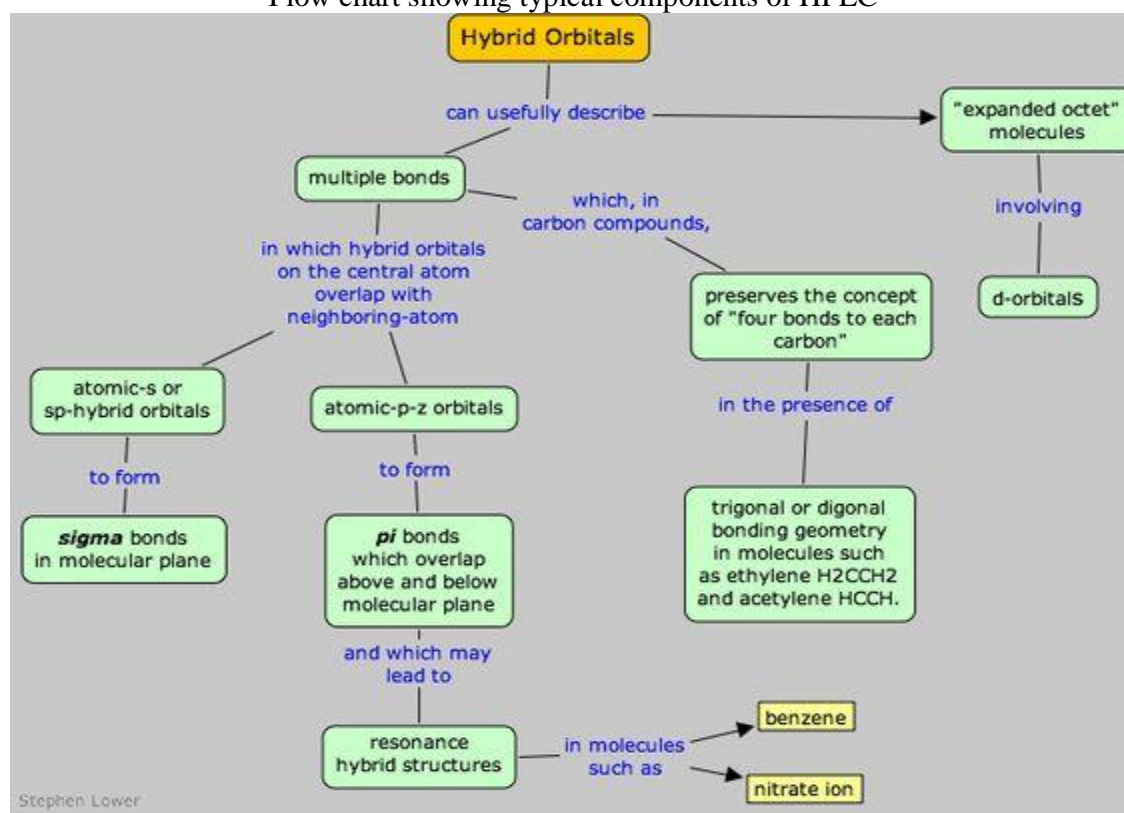


Addition and oxidative cleavage reaction of alkenes

FLOW CHART



Flow chart showing typical components of HPLC



Hybrid orbital

Compound Collections

Drug Discovery Cycle

Primary Assays
high through-put,
in vitro

Secondary Assays
counter screens, bioavailability
toxicity, metabolism, etc.

Chemical Synthesis

Indirect

Lead Compounds
and SAR

Design

Direct

Structural
Characterization of
Protein-Ligand Complex

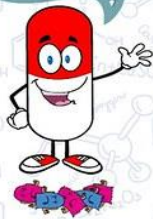
Clinical
Candidate

Classification of antibiotics on the basis of mode of action

INHIBITOR OF CELL WALL SYNTHESIS

- β-Lactams
- Glycopeptides

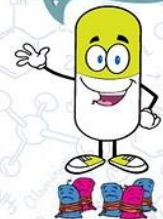
I kill bacteria.
They call me
bactericidal.



INHIBITOR OF FOLIC ACID SYNTHESIS

- Sulfonamides
- Trimethoprim

I inhibit the
growth of bacteria.
They call me
bacteriostatic.



INHIBITOR OF NUCLEIC ACID SYNTHESIS

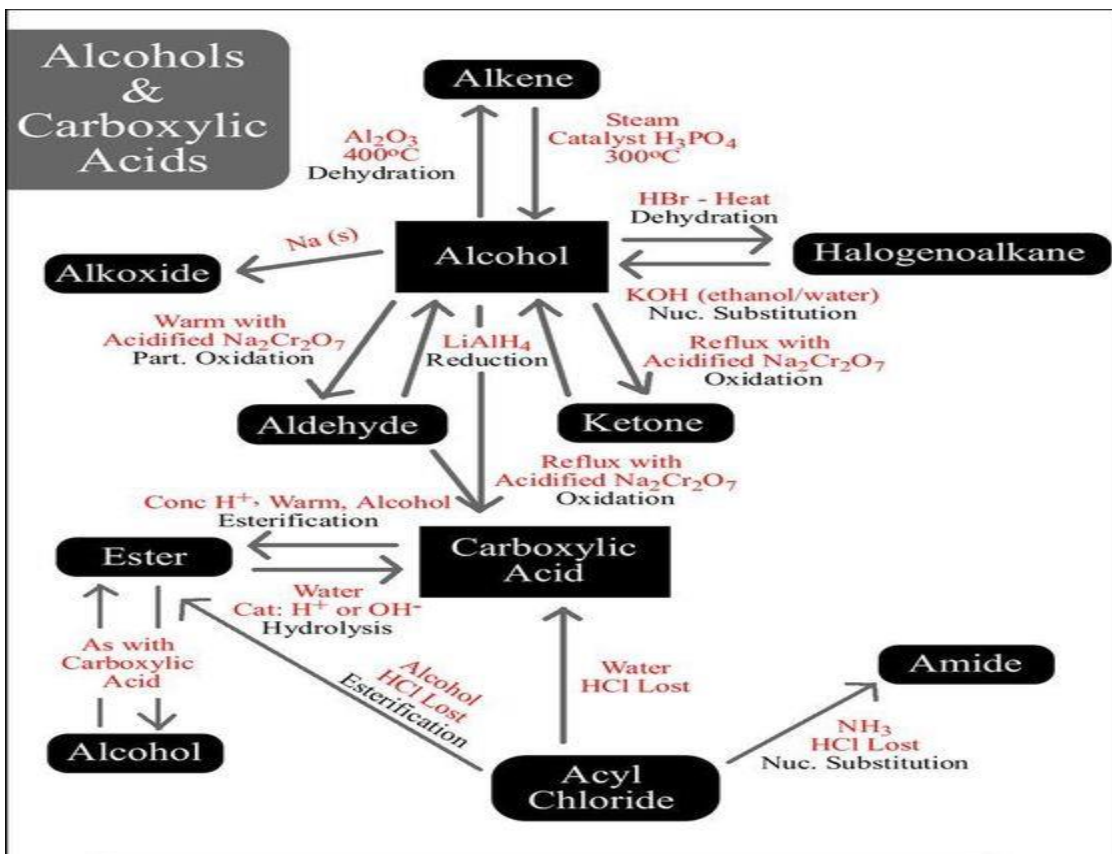
- Quinolones
- Rifamycins

INHIBITOR OF PROTEIN SYNTHESIS

- 30S
 - Tetracyclines
 - Aminoglycosides
- 50S
 - Chloramphenicol
 - Macrolides
 - Lincosamides
- EF-G
 - Fusidic Acid

INHIBITOR OF CYTOPLASMIC MEMBRANE

- Polymyxin
- Isoniazid



CHARTS USED IN TEACHING

