

Object: INTRODUCTION TO EXPERIMENTAL PHARMACOLOGY

Pharmacology is the science which deals with the study of drugs. the word PHARMACOLOGY' is derived from the Greek words 'Pharmakon' (a drug or poison) and logos (discourse). It roadly covers the information about the history, source, physiochemical properties,physiological properties, mechanism of action, absorption, distribution, metabolism and excretion of drugs. drugs are chemical agents used for the purpose of diagnosis, prevention relief or cure of a disease in man or animals. The word drug is derived from the French word 'drogue' meaning herb. Experimental pharmacology is relatively the youngest branch of basic medical sciences. The advancement in the field of electrophysiology, biochemistry, molecular biology and electronic or digital recording systems and software's have enriched and broadened the horizons of experimental pharmacology.

The main aims of the experimental pharmacology are to

1. Find out a therapeutic agent suitable for human use
2. Study the toxicity of a drug
3. Study the mechanism of action

Since experimental pharmacology involves the discovery of new drugs or to study the action of existing drugs it is done in two main stages

- Preclinical experimental pharmacology which involves the identification and optimization of novel chemical lead structures and testing them on animals and animal tissues or organs for their biological actions
- Clinical pharmacology where testing of drugs is done on human volunteers and patients for assessing the pharmacokinetics, safety and efficacy in humans.