

MD Pharmacology

General Pharmacology

Drug receptors and pharmacodynamics, dosage forms, drug delivery systems, Pharmacokinetic principles & parameters; Factors modifying drug action, pharmacogenetic, pharmacogenomics, Orphan drugs & diseases; chronopharmacology, adverse Drug reactions; Drug interactions, drug dependence; synergism; Antagonism; fixed dose Combinations; Toxicology; Dose response relationships; drug development and regulation of drugs, therapeutic index, Etiopathogenesis of diseases relevant to therapeutic use of drugs; gene therapy & evidence based medicine; special aspects of perinatal, paediatric and geriatric pharmacology; rational prescribing; Translational medicine

Systemic Pharmacology, chemotherapy and therapeutics

Pharmacology of drugs acting on autonomic, peripheral & CNS, cardiovascular, endocrine respiratory, renal, gastrointestinal and haemopoietic systems and treatment of diseases affecting these systems; Pharmacology of antimicrobial, antihelminthic, antiprotozoal, antifungal, antiviral and antimycobacterial drugs ; treatment of other infective diseases; cancer chemotherapy; Immunopharmacology, dermatological pharmacology, ocular pharmacology

Experimental pharmacology, Bioassay and statistics

Common laboratory animals; anaesthetics used in labs; Physiological salt solutions; Care & handling of lab animals; bioassay of antagonist; breeding types and methods; methods of euthanasia; CPCSEA, IAEC composition & function; Restraining of animals & blood collection methods; euthanasia method used in experimental study; Bioassay Methods & bioassay of histamine, acetylcholine, oxytocin and catecholamine; Dose Response curve, cumulative dose response curve, animal models disease induced & transgenic animals; rabbit, mice, rat & of guinea pig as experimental animals; recombinant DNA technology; immunoassays; drug screening methods involved in the evaluation of antiulcer, antidepressant, antianginal, antihypertensive, antidiabetic, antifertility, antipsychotic, hypnotic, anti-inflammatory, antipyretic, antiasthmatics, herbal drugs; Good Laboratory Practice; ethics In animal research; toxicity testing in animals; levers used;

Clinical Pharmacology and recent advances

Development of new drugs ,protocol designing, phases of clinical trial, study design, and ethics of clinical trials; Clinical pharmacokinetics and pharmacodynamic studies, Post marketing surveillance. Therapeutic drug monitoring, pharmacogenomics, pharmacovigilance, Drug Information services, drug utilization studies, & therapeutic audit, essential drug Concept and rational drug use; Good clinical practice; P- drug concept, HPLC, PCR, Chromatography; Recent advances in understanding of mechanism of drug action & treatment of diseases; New drugs & new uses of old drugs.