Course Outcomes:

1. Illustrate the process of drug discovery and discussing the diverse sources of drugs.
2. Examine the traditional vs new age drug design and development.
3. Elucidate the receptor theory and role of enzyme kinetics in drug design and development.
4. Outline the role of clinical trials in drug development system.
5. Demonstrate the various drug delivery mechanisms for effective active drug concentration.

S. No.	Contents	Contact Hours
1.	Drug Discovery and development overview, Source of drugs, molecular screening strategies, traditional drug development	9
2.	'Bench to Bedside' translation of drugs, Preclinical drug development, Phases of Clinical Trials	8
3.	IPR regulations in drug development, Biosafety regulations	9
4.	Enzyme kinetics, Enzyme inhibition, Allosteric modulators, Enzymes as drug targets, Receptor Theory, Agonist and antagonist, Peptidomimetics	8
5.	Epitope mapping, synthetic vaccine design, concept of lead identification, Lead optimization, Rational drug design . Computational drug design, Docking, QSAR, Pharmacophore modeling, Recent advances in drug development.	8
	Total	**42**

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Books: -

S. No.	Name of Authors /Books / Publishers
1.	Comprehensive Medicinal Chemistry ,C.Hansh 9Ed.);(vol I-VI)
2.	Design of Enzyme Inhibitors as Drugs,M.Sandler and H.J.Smith,Oxford University
3.	Drug Discovery and Design:Medical Aspects,J.Matsoukas and T.Mavromoustakos,IOS Press
4.	Drug Design Cutting Edge Approaches,Darren R Flower ,The royal society of Chemistry,Cambridge
5.	Protein folding and Drug Design ,R.A Broglia and L.Serrano,IOS Press

Stem Cells and Regenerative Medicines

Details of course: -