

[www.MediCOLL.org](http://www.MediCOLL.org)

ACCELERATE  
YOUR CAREER  
GROWTH IN

Fellowship in  
**CLINICAL PHARMACOLOGY**



12 Months  
Programme



Globally  
Accredited



Placement  
Assurance



Live Sessions by  
Experienced Faculties

# ABOUT MediCOLL

MediCOLL Learning online learning platform that encourages interaction and knowledge sharing among participants. Through discussion forums, live webinars, and virtual networking events, you can connect with fellow learners from around the world. This collaborative approach not only enhances your understanding of the subject matter but also provides opportunities for networking and building professional connections within the medical community.



In today's fast-paced world, online learning platforms have revolutionized education, making it more accessible and flexible. Medicoll Learning is an innovative online learning platform that serves the needs of medical professionals, MBBS graduates and Non-MBBS graduates, who aspire to pursue specialized fellowship courses. With a commitment to deliver high-quality education, Medicoll Learning offers a wide range of fellowship programs designed to enhance the knowledge, skills, and career prospects of medical professionals. One of the key advantages of MediCOLL Learning is its online learning format. This allows you to access your fellowship courses from anywhere, at any time, and at your own pace. The platform provides a user-friendly interface with a variety of learning resources, including video lectures, interactive quizzes, and case studies.

MediCOLL Learning places a strong emphasis on delivering high-quality medical education. The organization collaborates with renowned medical experts and practitioners to develop and deliver cutting-edge educational programs. By leveraging the expertise of industry leaders, Medicoll Learning ensures that its educational offerings are up-to-date, evidence-based, and aligned with the latest advancements in medical science and practice. The organization recognizes the importance of interactive and engaging education, incorporating a variety of teaching modalities such as case-based learning, simulations, hands-on workshops, and virtual learning platforms. These methods foster active participation, critical thinking, and practical application of knowledge, ensuring that learners are well-prepared to address real-world challenges. These fellowships provide healthcare professionals with advanced clinical training, research opportunities, and mentorship, enabling them to excel in their chosen specialties. The comprehensive nature of these fellowships equips participants with the skills and knowledge required to become leaders in their fields.

# THE PARTNERS

## ACADEMICS



## TRAINING



# ACADEMIC PARTNER MANGALAYATAN UNIVERSITY

To be a leader in education, an institution must be founded on two basic principles: keeping the interest of students as its foremost priority and recognizing that knowledge is ever-growing, omnipresent and requires the opening of minds.

At Mangalayatan University, we take pride in these two qualities being at

the core of our existence. Mangalayatan (translated as the germinal bed of positive thought) aims to perpetuate a culture of hardwork, embracing change and preparing oneself for the fast progressing world with the latest skills and the highest level of social and personal values. Situated 20 km from the Yamuna Expressway in Uttar Pradesh, Mangalayatan University was founded in 2006 and has graduated over 7000+ students. Nearly 3500+ students from India and abroad are currently studying on campus.

Mangalayatan University vision is to give students from all kinds of background, a quality educational experience leading to legitimately rewarding career opportunities.



# WHY CHOOSE US?



- ✔ Globally Accredited Curriculum
- ✔ Hassle free admission, delivery and assessment
- ✔ International Accreditations
- ✔ Highly Experienced Faculties
- ✔ Clinical observership with leading Hospitals
- ✔ Fast Career Growth
- ✔ Easy EMI options available

# CLINICAL PHARMACOLOGY

Clinical pharmacology is the branch of pharmacology that deals with the study of drugs and their effects on humans. It encompasses various aspects including the pharmacokinetics (how the body affects the drug) and pharmacodynamics (how the drug affects the body) of drugs in clinical settings.

Our "Fellowship in Clinical Pharmacology" was created by top Pharmacologists to cover a wide range of topics including pharmacokinetics, pharmacodynamics, drug metabolism, drug interactions, clinical trial design, pharmacogenomics, and drug safety. Fellows gain in-depth knowledge of how drugs are used in clinical practice, including the principles of rational prescribing and medication management.

Fellowship in Clinical Pharmacology from MediCOLL Learning offers a transformative journey for aspiring healthcare professionals seeking specialized knowledge and skills in the dynamic field of clinical pharmacology. In an era where precision medicine and personalized treatment approaches are gaining prominence, understanding the intricate relationship between drugs and patients is paramount.

# COURSE HIGHLIGHTS



12 Months of Programme



Live Sessions by Eminent Faculties



Globally Accredited



Flexible Learning Mode

## LEARNERS TESTIMONIAL



**Dr. Santosh Kamble**



Best learning platform that keeps you updated with latest clinical methods.



**Dr. Maheeb Rehman**



Wonderful opportunity for Doctors who really want to improve their skills with knowledge



**Dr. Aman Shaw**



Excellent faculties & much informative study material with practical learning. I am truly impressed

# COURSE MODULES

## MODULE-1

### Drug Chemistry

- Drugs as organic molecules
- Interactions between molecules
- Ionization
- Isomers

## MODULE-2

### Drug activity towards receptor

- Introduction to Mechanisms of Specific and Non-specific Drug Action
- Agonists and antagonists
- Partial Agonists and Inverse Agonists

## MODULE-3

### Drug response

- Drugs Affecting Transmembrane Signaling
- Nuclear Drug Receptors
- Enzymes as Drug Targets Including Anticholinesterases
- Enzyme Induction and Inhibition

## MODULE-4

### Tachyphylaxis

- Unwanted Drug Effects
- Tolerance & Tachyphylaxis
- Drug Interactions



# COURSE MODULES

## MODULE-5

### Pharmacokinetics: Part-1

- Introduction to pharmacokinetics and modeling
- Pharmacokinetics principles in different patient groups
- Pharmacokinetics of intravenous anaesthesia
- Absorption and Bioavailability
- Distribution, Protein Binding and Body Compartments
- Inhalational drug administration
- Pharmacokinetics: Elimination

## MODULE-6

### Pharmacokinetics: Part-2

- Drug Metabolism and Excretion
- The Cytochrome P450 system
- Two- and three-compartment models
- Clearance and volume of distribution
- Target controlled infusions
- Interindividual Variation in Drug Response

## MODULE-7

### Anaesthetic Action of drugs

- Halogenated Volatile Agents and Unwanted Effects of Volatile Agents
- Nitrous oxide and xenon
- Mechanism of General Anaesthetic Action
- Benzodiazepines & Sedative agents
- Propofol
- The Barbiturates
- Etomidate
- Ketamine
- Properties of an ideal intravenous induction agent
- Local Anaesthetic Agents

## MODULE-8

### Analgesic action of drug

- Simple analgesia: aspirin and paracetamol
- Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)
- Opioid drugs: general properties and mechanisms of action
- Morphine and other opioids
- Opioids with weak and partial agonist activity and opioid antagonists

# COURSE MODULES

## MODULE-9

### Neuromuscular

- The Neuromuscular Junction & the Nicotinic Acetylcholine Receptor
- Succinylcholine
- Non-depolarizing muscle relaxants: general properties
- Aminosteroid neuromuscular blocking agents
- Benzylisoquinolinium muscle relaxants
- Reversal of neuromuscular blockade
- The ideal short acting muscle relaxant

## MODULE-10

### Neuropharmacology

- The Autonomic nervous system
- Drugs and the Sympathetic Nervous System
- Endogenous catecholamines
- Drugs and the Parasympathetic Nervous System

## MODULE-11

### Cardiovascular System

- The Cardiovascular System and Sites for Drug Effects
- Inotropes and Vasoconstrictors
- Drugs used in Ischaemic heart disease
- Classifications for antiarrhythmic drugs
- Clinical Use of Antiarrhythmic Agents
- Drugs to produce intraoperative hypotension
- Therapeutic Antihypertensives

## MODULE-12

### Hematology

- Anticoagulants
- Antiplatelet Agents
- Thromboprophylaxis and thrombosis
- Fluids for volume expansion

# COURSE MODULES

## MODULE-13

### Drugs classification: Part-1

- Antihistamines
- Drugs acting on the respiratory system
- Drugs used in the treatment of acute asthma
- Drugs acting on the GI tract
- Antiemetic drugs
- Diuretics
- Drugs acting on the uterus

## MODULE-14

### Drugs classification: Part-2

- Principles of actions of antimicrobial drugs
- Antimicrobial Stewardship for Community Pharmacy
- Antimicrobial drugs
- Antifungal and antiviral drugs
- Antiepileptic drugs (AEDs)
- Antidepressants/drugs affecting mood
- Anti-Diabetic Therapy: NIDDM & Insulin Therapy in Diabetes Mellitus
- Corticosteroids; Thyroxine and Drugs Used in Thyroid Disorders
- Effects of Drugs on the Eye and Vision; Includes Intraocular Pressure

## MODULE-15

### Substances

- Social drugs: Alcohol
- Social drugs: Non-legal Drugs
- Social drugs: Tobacco

## MODULE-16

### Resources for Pharmacy Staff

- Managing sepsis
- Prudent use of antibiotics (part 1)
- Prudent use of antibiotics (part 2)
- Prudent use of antibiotics (part 3)
- Safe prescribing in renal impairment
- Safe Use of Insulin
- Symptom management for the dying adult

# COURSE MODULES

## MODULE-17

### Pharmacy Professionals

- Drug management of breathlessness
- Drug management of pain: core knowledge
- Management of constipation
- Management of nausea and vomiting
- Management of seizures

## MODULE-18

### Basic Science: Pharmacology

- IV anaesthetic agents
- Inhalational anaesthetic agents
- Neuromuscular blocking agents
- Local Anaesthetic Agents
- Drugs Used in an Emergency

# COURSE OUTCOMES

## UPON COMPLETION OF THE PROGRAMME ONE SHOULD BE ABLE TO...

01

Fellows gain hands-on experience in various clinical settings, including hospitals, clinics, and research laboratories, allowing them to apply theoretical knowledge to real-world scenarios under the guidance of experienced mentors.

02

Fellowship programs provide focused and intensive training in clinical pharmacology, equipping fellows with comprehensive knowledge and skills essential for clinical practice and research in the field.

03

Fellowship programs provide opportunities for fellows to interact with leading experts, researchers, and practitioners in clinical pharmacology through conferences, seminars, and collaborative projects.

04

Through their training and research, fellows contribute to improving patient care by optimizing drug therapy, identifying adverse drug reactions, and developing personalized treatment strategies based on pharmacogenomic principles.

# COURSE DIRECTORS



### **DR. SANJAY AGARWAL (MD, FACE, FACP)**

Fellow of American College of Endocrinology  
Director, Aegle Clinic - Diabetes Care  
Head, Dept. of Medicine & Diabetes, Ruby Hall Clinic, Member,  
Editorial Board, BMJ Open Diabetes Research & Care Journal  
Associate Editor of International Journal of Diabetes  
in Developing Countries (IJDDC)  
Hon. Secretary, Governing Council, National RSSDI  
Chairman, International Diabetes Expert Consortium( IDEC)



### **DR. ANJALI BHATT (D.ENDO, MSC (ENDO))**

Consultant Diabetologist and Endocrinologist  
(Clinician, Researcher, Academician, Activist)  
Founder ENDOCLINIC, Pune

# ADMISSION PROCESS



## Eligibility

- ✔ Pharm D/M.Pharm/B.Pharm Graduates/D.Pharm
- ✔ Applicants who are in their final year can also apply



## Steps to Apply



### Registration

Fill the application form and submit relevant documents



### Fee Payment

Proceed with the fee payment after submitting the application form



### Get Started

Once the application form is received along with documents and course fee, we will provide the login details to access the course



- ✔ Course duration – 10 Months (online) + 2 Months (observership)
- ✔ There will be an extra charge for the extension of the course validity.



Terms and conditions apply

Refer to FAQs on our each course page

For any queries write us at :  
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