

# **Medical Chemistry Internship**

# **Advanced Focussed Areas for Interns in Medical Chemistry Internships**

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#### • Fundamentals of Medical Chemistry

- Introduction to Medical Chemistry
- Principles of Organic and Inorganic Chemistry
- Biochemistry and Molecular Biology
- Structure and Function of Biomolecules
- Drug Discovery and Development
- Pharmacokinetics and Pharmacodynamics
- Medicinal Chemistry and Drug Design
- Analytical Techniques in Chemistry
- o Applications of Medical Chemistry in Research
- Ethics and Safety in Medical Chemistry Research

#### • Drug Discovery and Development

- Target Identification and Validation
- Lead Compound Identification
- Structure-Activity Relationship (SAR) Studies
- High-Throughput Screening and Assay Development
- o Computational Chemistry and Molecular Modeling
- o Bioinformatics and Cheminformatics
- Optimization of Drug Candidates
- Preclinical Testing and Toxicology
- Regulatory Aspects of Drug Development
- Future Directions in Drug Discovery

## • Pharmacology and Toxicology

- Pharmacokinetics: Absorption, Distribution, Metabolism, and Excretion (ADME)
- Pharmacodynamics and Drug Mechanisms
- Clinical Pharmacology and Therapeutics
- Drug-Drug Interactions and Side Effects
- Toxicology and Safety Assessment
- Biomarkers and Personalized Medicine
- Case Studies in Pharmacology
- Clinical Trials and Drug Approval Process
- Ethical Considerations in Pharmacology

Future Trends in Pharmacology and Toxicology

### Advanced Research and Applications

- Nanomedicine and Drug Delivery Systems
- Biopharmaceuticals and Biosimilars
- Peptide and Protein Chemistry
- Natural Products Chemistry and Phytochemistry
- o Computational Chemistry and Drug Design
- Metabolomics and Systems Biology
- Challenges in Medicinal Chemistry Research
- o Case Studies in Drug Development
- Emerging Trends in Medical Chemistry
- Future Directions in Medicinal Chemistry Research

## • Future Directions and Emerging Trends

- Innovations in Medical Chemistry and Drug Development
- Role of Chemistry in Precision Medicine
- Emerging Applications in Clinical Research
- Global Trends in Medical Chemistry Research
- Future of Medical Chemistry in Healthcare
- o Ethics and Regulation in Medical Chemistry Research
- Future Research Priorities in Medical Chemistry
- Impact of Medical Chemistry on Society
- Public Engagement and Education in Chemistry
- Integration of Medical Chemistry with AI and Data Science

# Contact Via Whatsapp on +91-7993084748 for Fee Details