



One Week
SUMMER SCHOOL 2026
on
**Understanding Preclinical Research: Design, Conduct
and Conclude**

Organized by
Department of Pharmacology

6th July to 10th July 2026

Topics covered

- Foundations of preclinical research
- Animal welfare laws, ethics & regulatory guidelines
- Experimental animal model development
- CNS and CVS pharmacology models
- Western blotting technique and applications
- Pharmacokinetics basics and protocol designing
- *Drosophila melanogaster*: alternative experimental model
- Biostatistics & software tools for data analysis

Outcomes

- Understanding the regulatory and ethical requirements for animal experimentation
- Design and conduct preclinical experiments following PREPARE and ARRIVE guidelines
- Perform and interpret western blotting techniques
- Apply pharmacokinetic concept to study design
- Analyze preclinical data using appropriate biostatistical methods

Objectives

- To introduce participants to the principle and practices of preclinical research
- To build awareness of ethical frameworks and animal welfare regulations
- To provide hands-on training with experimental animal models and laboratory techniques
- To familiarize participants with pharmacokinetic study design and alternative models
- To develop competency in biostatistical analysis of data

Organizers

Convener Dr. Jagannath Sahoo, Dean, SPPSPTM
Faculty Coordinators
Dr. Kalyani Barve, HOD Pharmacology
Dr. Sinjini Sarkar, Assistant Professor

DAY-1

- Inauguration
- Introduction to Preclinical Research
- Animal Welfare Laws & Ethical Review Processes
- PREPARE & ARRIVE Guidelines
- Hands-on Training: Handling of Experimental Animals & Routes of Administration
- Q & A Session and Participant Reflections

DAY-2

- Development of Experimental Animal Models
- Experimental Animal Models of CNS Disorders
- Experimental Animal Models of CVS Disorders
- Hands-on Training: Assessment of Neurological & Cardiovascular Parameters
- Q&A and Participant Reflections

DAY-3

- Basics of Western Blotting
- Hands-on Training: Western Blotting Technique
- Q&A and Participant Reflections

DAY-4

- Basics of Pharmacokinetics
- Developing Protocol for Pharmacokinetic Study
- *Drosophila melanogaster* – Alternative to Animal Model
- Experiments on *Drosophila*
- Q&A and Participant Reflections

DAY-5

- Basics of Biostatistics
- Software Tools for Data Analysis
- Hands-on Training: Data Analysis using Software
- Q&A and Participant Reflections
- Valedictory Function

Eligibility

- B.Pharm, M.Pharm Students
- PhD Scholars
- Faculty

Registration

Registration Fee:

Faculty / Students -Rs. 2000/-
Students (NMIMS) -Rs. 1500/-

Link for Registration:

<https://forms.gle/nHjDK1MJkeQXEVW9>

Limited 30 seats (On a first come, first serve basis)

Last Date to Register: 20th June 2026



Scan for Registration