



Information Brochure
for
Certificate cum Training
Course on
**“Improving the
Quality and
Outcome of
Experimental
Research”**

January 19-24, 2026



including information behavior
based outcome surgery
planned application quality light
Course Alternatives experimentation Evidenced Science
communication investigation welfare material requirements
discovery increasing methodologies challenges In-vitro
module training era Uses end design courses
resources care part GLP preclinical new survival Following
Fluorophores part industries certificate
Alternative skilled etc researcher Quantitative
current curriculum using needs two Bid required Image Techniques
use In-vivo eco-system Analytical tools Responsibility
Experimental limitation Microscopy Statistical conducted
Synopsis Social update Imaging Evidence ethics conducted
Animal multi-domain **Laboratory** demands
analysis interpretation animals
fulfill rules Reporting health hands
Fluorescence human collection

**National Institute of
Pharmaceutical Education
and Research (NIPER)
Raebareli**

(www.niperraebareli.edu.in)



**National Institute of Pharmaceutical Education and Research (NIPER)
Raebareli**

**Certificate cum training course
on
“Improving the Quality and Outcome of
Experimental Research:
through Laboratory to Investigators Approach”**

January 19 - 24, 2026

Course Fee: Rs 15000/-

(Including welcome kits, training materials, Lunch, tea/coffee during the course, access to the laboratory, consumables for practical experience)

Last date of application: 10th January 2026 (First cum First Serve basis).

Venue: NIPER-R Lucknow Campus

Total seats: 15

Online application link: <https://form.jotform.com/211135573176453>

Kindly fill in the relevant details. After scrutiny, acceptance will be communicated for the Fee submission

Focus

Hands-on Training and workshop on improving the outcomes of

- *Histology Techniques*
- *Cellular Imaging and Confocal Techniques*
- *Live Cell Imaging*
- *In-vivo Imaging Techniques*

Address for correspondence

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Course Co-ordinator

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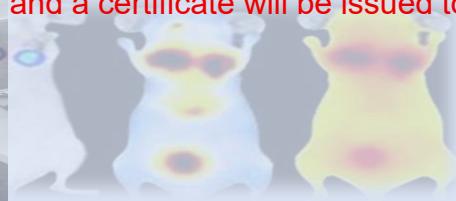
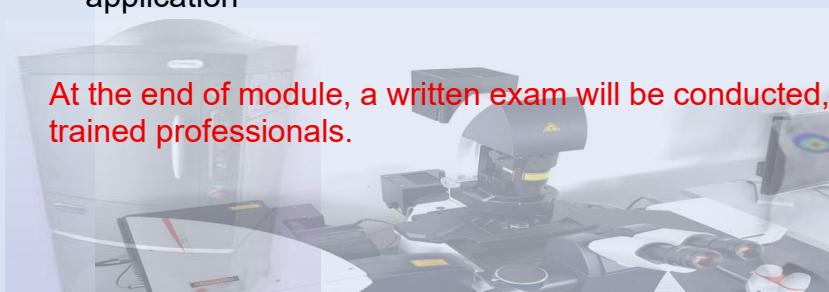
About the Course

There are increasing demands of trained personnel working in the healthcare industries including biomedical research, drug discovery and disease diagnosis. Experimental research is an integral part of the health care eco-system and there is a huge demand for trained professionals with update knowledge in the era of new challenges and current rapidly changing regulatory requirements. Successful research/discovery largely depends on outcomes of early research *viz in-vitro* experiments, preclinical investigation using animals and right interpretation of recorded data *etc.* and required multidomain skilled human resources. The current academic curriculum is unable to fulfill the needs for multi-domain skilled human resources required for biomedical industries/research establishments due to its own limitation. To fulfill this demands, NIPER-R is conducting certificate Course for young health care professional and biomedical researcher to enhance their skills sets for quality data outcomes. The institute had conducted 1st batch of the certificate program with 20 participants in November 2021; the second batch in 2022 and 3rd batch in the year 2023.

The course program includes lectures, resource materials, a problem-based practical laboratory approach for quality data, and quality readouts. Certification will be awarded based on lecture/training-wise assignments, as well as a final proctored exam. The following modules will be included in programs along with practical training on quality histology, immunostaining, microscopy (live cells, confocal imaging, *etc.*) and *in vivo* imaging.

- Evidence based biomedical research
- Quality of information and quality outcome
- In-vitro research
- Uses of laboratory animals in biomedical research
- Laboratory material management
- Analytical and Quantitative Light Microscopy
- Fluorescence Microscopy and Fluorophores
- Image Analysis
- In-vivo Imaging Techniques and application
- GLP requirements in Research
- Animal welfare rules and management
- Alternative to animals in experimentation
- Social Responsibility and Bioethics
- Laboratory behavior and ethics
- Experimental data collection and management
- Statistical tools and data interpretation
- Bid DATA analysis and management
- Data Reporting and Science communication

At the end of module, a written exam will be conducted, and a certificate will be issued to trained professionals.



Eligibility and Selection

1. Working professional at medical college/biomedical labs etc.
2. Clinicians
3. Post-doc scholars, junior/senior research fellow at university/Institutions
4. Industry/CRO professional involved in biomedical research.

The Institute

The Institute was established in 2008 under the aegis of the Ministry of Chemicals and Fertilisers, Govt. of India and has been declared as a Centre of Excellence owing to its importance in imparting pharmaceutical education and research. Since July 2018, NIPER, Raebareli, has been independently functioning from the new transit campus at Bijnor-Sisendi Road, Lucknow. and having academic and administrative blocks, hostel blocks separate for boys and girls and cafeteria. At present, Postgraduate (M.S. (Pharm) and Doctoral (Ph.D.) programs are offered by the Departments Biotechnology, Pharmacology and Toxicology, Pharmaceutics, Medicinal Chemistry, Pharmaceutical Analysis, Medical Device, Regulatory Toxicology and Regulatory Affairs program in Climate Studies is offered by the corresponding group.

NIPER, Raebareli, is actively engaged in addressing the therapeutic needs of the country, especially focusing on locally prevalent diseases. Tuberculosis is one of the most lethal diseases in the country, which warrants urgent attention, as most of the available drugs are undergoing resistance issues. As per mandate, NIPER-R has started research programs directed towards the design and development of new anti-tubercular agents for the treatment of TB. The intense research programs are also aimed towards the treatment of neurodegenerative diseases like Alzheimer's disease. The Department of Pharmaceutics is actively involved in the development of nanoformulations for BCS class II and IV drugs and peptides. The primary focus for developing nanoformulations is to target the brain, through nanoemulsions, drug nanofibres, polymeric drug nanoparticles, pharmaceutical nanocrystals/ cocrystals, mesoporous silica nanoparticles, etc. The primary research focus of the Department of Pharmacology and Toxicology is on understanding the mechanisms central to neurodegenerative disorders such as Alzheimer's disease. The research programs are also directed in studying pathomechanisms driving neurological consequences of arsenic, copper, and pesticide exposure.

