
A vertical collage of scientific images is positioned on the left side of the slide. From top to bottom, it includes: a hand holding a white mouse, a petri dish with a blue agar surface, a DNA double helix structure, a green molecular model, a petri dish with a red agar surface, and a blue molecular model. The background of the slide is white with a blue and orange geometric design at the bottom.

## 2. CENTER FOR PRE-CLINICAL RESEARCH (CPCR)

Advance your goal to make sure your treatment reaches the patient

A white mouse is shown in profile, facing right. A blue DNA double helix structure is superimposed over its back, extending upwards and to the left. The mouse is standing on a white surface against a white background. This image is set against a blue rectangular background at the bottom right of the slide.



**mi**et

# CENTER FOR PRE-CLINICAL RESEARCH (CPCR)

**Advance your goal to  
make sure your treatment  
reaches the patient**

## FOR ENQUIRY CONTACT

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Uttar Pradesh 250005

## Department of Pharmaceutical Technology

### OUR THRUST AREAS

- 1 Toxicity Studies
- 2 Efficacy Studies
- 3 Pharmacokinetics Studies
- 4 BA/ BE Studies
- 5 IV – IC Correlation
- 6 Model Development

### INDUSTRIES COVERED



Pharmaceuticals (small molecules, Biosimilar & Recombinant DNA products) & Alternate medicines



Veterinary drugs



Cosmetics



Botanicals



Food additives

## 2.1 Objectives of CPCR

### Preclinical Research

The CPCR aims to conduct high-quality pre-clinical studies to support the development of innovative medical treatments, including new drugs, devices, and therapeutic interventions.

### Collaboration and Training

The CPCR fosters collaborations with academic institutions, pharmaceutical companies, and research organizations to advance scientific knowledge and provide training opportunities for students and researchers.

### Advancing Medical Innovation

By conducting cutting-edge preclinical research, the CPCR aims to contribute to the development of innovative medical treatments and therapies that can improve patient outcomes and quality of life.

## 2.2 Coordinators & Team

S. No.	Status	Name	Mobile	Email
1	Coordinator	Ms. Garima Agarwal	9560347907	garima.agarwal@miet.ac.in
2	Chairman IAEC	Dr. Vipin Kumar Garg	+ 9 1 - 9 7 1 9 5 64736	vipin.garg@miet.ac.in
3	Scientist Incharge	Mr. Ankit Chaudhary	+ 9 1 - 7409597509	ankit.chaudhary@miet.ac.in
4	Student	Mr. Prawal Gupta	+91-8171269595	Praval.gupta@miet.ac.in
5	Student	Mr. Nitin Kumar	+91-9520650981	Nitin.kumar@miet.ac.in

## 2.3 OBJECTIVES

A vertical collage of scientific images on the left side of the slide. From top to bottom: a hand holding a white mouse, a hand holding a blue molecular model, a petri dish with a blue spiral, a petri dish with green colonies, a petri dish with red colonies, and a petri dish with blue colonies.

1

Pharmaceutical Pre-formulation Studies

Formulation development services for

2

- Pharmaceuticals (small molecules, Biosimilars, & Recombinant DNA products)
- Veterinary drugs
- Cosmetics
- Botanicals
- Food Additives

3

Analytical and pre-clinical evaluation of the finished products

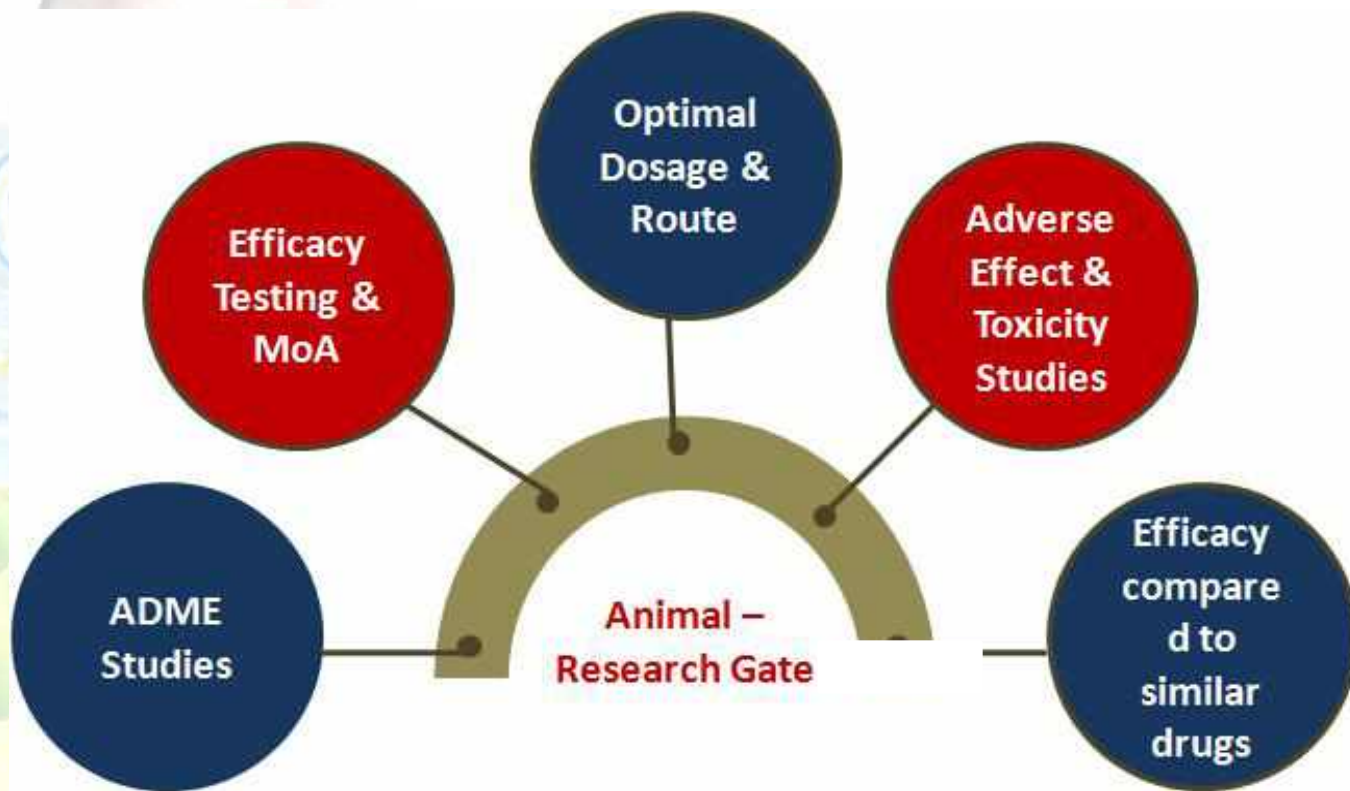
4

ADME Studies

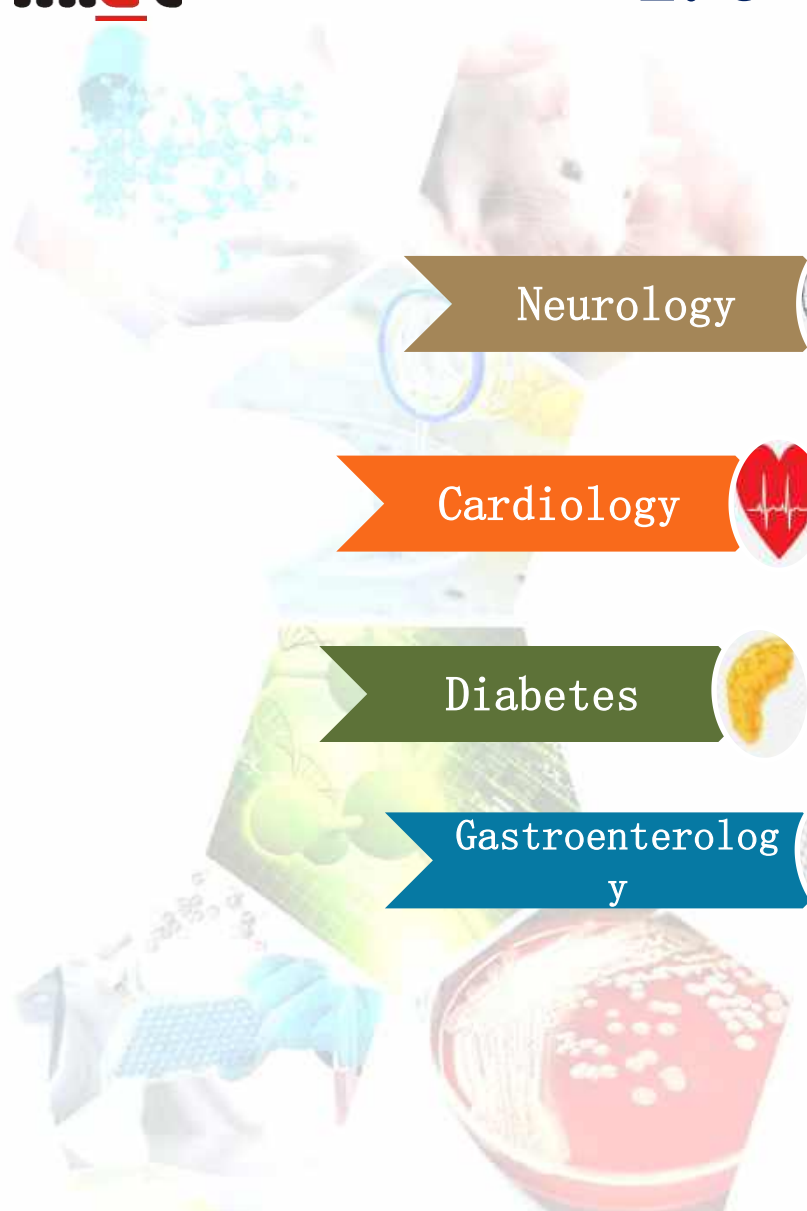
5

Toxicity Studies

## 2.4 CPCR OFFERS



# 2.5 AREAS COVERED



Neurology



Oncology



Cardiology



Anti-microbials



Diabetes



Dermatology



Gastroenterology



Toxicology



Top  
Therapy  
Areas  
Include

# INDUSTRIES COVERED



Pharmaceuticals (small molecules, Biosimilar, & Recombinant DNA products) & Alternate medicines



Veterinary drugs



Cosmetics

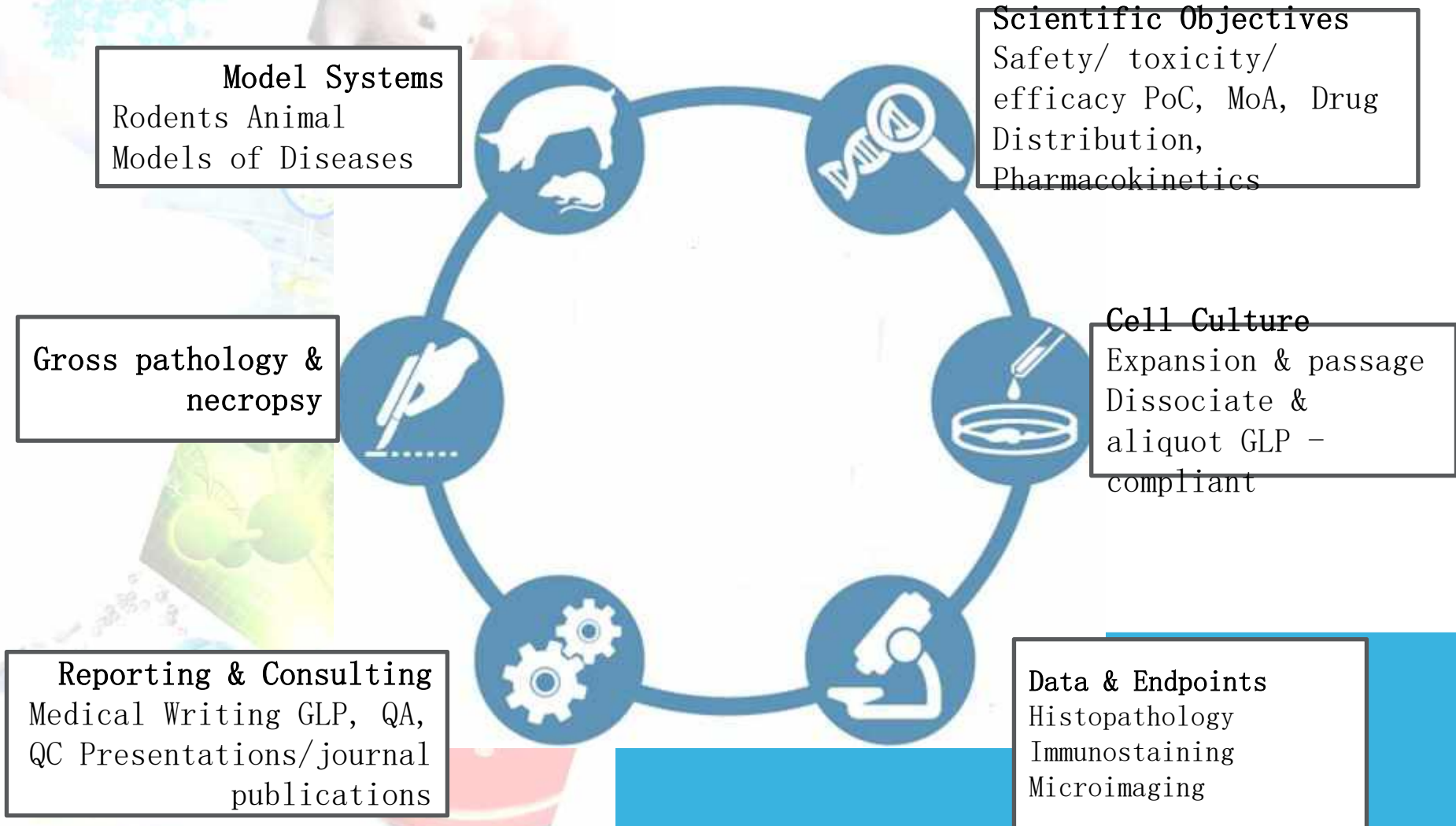


Botanicals



Food additives

# 2.6 Integrated Preclinical Research Platform



# 2.7 ANIMAL HOUSE ACCREDITATION



No. 25/329/2014-AWD  
Government of India  
Ministry of Fisheries, Animal Husbandry and Dairying  
Department of Animal Husbandry and Dairying  
O/o Committee for the purpose of Control and Supervision of Experiments on Animals  
(CPCSEA)  
\*\*\*\*\*

Delhi Milk Scheme Complex,  
Shadipur, Delhi - 110008  
Date: 03.01.2023

To,  
Dr. Vipin Kumar Garg, Chairperson, IAEC  
Meerut Institute of Engineering and Technology  
Delhi Bypass Road, Baghpat Crossing, PO Malayana,  
Meerut -250 002, Uttar Pradesh  
Email: vipin.garg@miuet.ac.in  
Mobile: 9719564736

Subject: Renewal of Registration and Reconstitution of Institutional Animals Ethics Committee (IAEC)-regarding

Sir,  
The registration of Animal House Facility of your establishment with CPCSEA has been renewed for a period of five years from the date of issue of this letter.

2. The new registration number of Animal House Facility of your establishment is 711/PO/Re/NS/02/CPCSEA for Research for Education purpose and Research for Commercial purpose on small animals. Henceforth, the new registration number may kindly be quoted in all your future correspondence.

S. No.	Date	Name of the Outcome (Publication / Presentation / Patent / Copyright / Product Developed etc.)	Title	Author(s) / Contributor(s)
1	2021 - 2023	Industrial Consultancy	Safety Profile and BA/BE studies of various Nutraceuticals, cosmeceuticals, and Medical Devices	Dr. Vipin Kumar Garg, Prof Alimuddin Saifi, Dr. Shweta Dumoga, Dr. Prabhash Nath Tripathi, Garima Agarwal, Ankit Chaudhary
2	2023	Publication	Effects of Mito-Q on cognitive and motor function in a rat model of Huntington's disease after 3-NPA- induced mitochondrial stress	Mr.Avnesk Kumar & Dr. Vipin Kumar Garg
3	2023	Publication	Preclinical evaluation of the anti- hyperglycemic activity of ethanolic extract of leaves of Scheffleraarboricola in an alloxan-induced diabetic animal model of rats	Avnesk Kumar & Dr. Vipin Kumar Garg
4	2023	Publication	Cytotoxicity and bioavailability assessment from thiamin-phospholipid complexation loaded Ajwain oil based self nano emulsifying system	Anoop Kumar, Amulya Jindal, Piyush Kumar Singh Arya

Project Name	Therapy	Area	TRL
Wound-healing patch for diabetic foot ulcers	Anti-Diabetics	Drug Delivery	Level 3
Design, Synthesis, and Evaluation of Combretastatin A-4 analogs as anti-cancer agents	Anti-Cancer	Novel Chemical Entity	Level 4
Design, Synthesis, and Evaluation of 4-Aminoquinazoline analogs as anti-cancer agents	Anti-Cancer	Novel Chemical Entity <b>(Patent Granted)</b>	Level 4
Design, Synthesis, and Evaluation of Quinazolinone analogs as anti-tubercular agents	Anti-infectives	Novel Chemical Entity	Level 4
Preparation of a novel herbal anthelmintic formulation	Anthelmintic	Formulation Development <b>(Patent Granted)</b>	Level 5
Novel Drug Delivery System of an antidiabetic for bioavailability enhancement	Anti-Diabetic	Drug Delivery	Level 4
Natural Polysaccharide based colon drug delivery	GI	Drug Delivery	Level 4
Nanoemulsion with enhanced behavioral performance in Parkinson's disease	CNS	Drug Delivery	Level 4
Nanostructured in-situ nasal gel for nose-to-brain targeting	CNS & CVS	Drug Delivery	Level 4

Project Name	Therapy	Area	TRL
An anti-asthmatic activity of natural Toll- like receptor-4 antagonist in OVA-LPS- induced asthmatic rats	Asthma	Novel Chemical Entity	Level 4
Role of TLR4 antagonist in OVA/LPS induced vasculitis in rats	Vasculitis	Novel Chemical Entity	Level 4
Protective role of selective anti-depressants and anti-diabetics against three nitro-propionic acid-induced cognitive dysfunction and behavioral impairment in Huntington's disease	CNS	Modeling	Level 4

## DEVICES & DIAGNOSTICS

Project Name	Therapy Area	Patent Status	TRL
Development of an automated Cataract Detection & grading system	Ophthalmic	IP filed	Level 6
Development of an algorithm for the detection of ICP from ocular USG images	Ophthalmic	IP filed	Level 5
Development of smart automated Pill box dispenser for elderly patients	Patient Care	IP filed	Level 7
IOT-based Infusion pump	Patient care	NA	Level 6

## 2.9 MOU AND INDUSTRY CONSULTANCY

Total 5 MOU with Industry

- Mittal Global Clinical Trial Services
- Chemzin Labs Private Limited
- Cedrus Bio-products Private Limited
- AAL Biosciences Research Pvt. Ltd.
- MDC Pharmaceuticals Ltd

❖ Total Consultancy Projects

2021-2022 - 66 (25+ 41)

2022-2023 - 122 (45 + 77)

2023-2024- 198

## 2.10 Future Plans and Expansion

### Expand Facilities

*The CPCR plans to expand its facilities to accommodate growing research demands and accommodate new technologies.*

### Strengthen Partnerships

*The CPCR aims to build stronger collaborations with leading institutions and industry partners to drive innovation and impact.*

### Increase Capabilities

*The CPCR will continuously invest in the latest equipment and technologies to enhance its research capabilities and stay at the forefront of scientific advancements.*

### Enhance Training

*The CPCR will offer increased training opportunities for students, researchers, and professionals to foster the next generation of scientific leaders.*

**THANK YOU**

