



## 1. 2. CENTER FOR CHEMICAL RESEARCH & DEVELOPMENT

### CCRD

*The Centre for Chemical Research & Development (CCRD) is a leading institution dedicated to advancing the field of pharmaceutical technology. With a focus on innovative research and development, the CCRD offers a wide range of services, including the design of multi-step synthetic processes, custom synthesis, and analytical evaluation of intermediates and final products. The center's flexible and client-driven approach, combined with its efficient and high-quality services, make it a trusted partner for pharmaceutical companies and researchers around the world.*

# 1.1 Facility In-charge

S. No.	Status	Name	Mobile	Email
1	Coordinator	Dr. Prabhash Nath Tripathi	+919667970491	Prabhash.tripathi@miet.ac.in
2	Faculty Co In-charge	Mr. Nilay Kumar Nandi	9667970491	nilay.nandi@miet.ac.in

# 1.2 TEAM MEMBERS

S. No.	Status	Name	Sem / Branch / Section	Mobile	Email
1	Student Convenor	Mr. Gaurav Kumar	M. Pharma	8449512432	cgaurav281298@gmail.com
2	Student Co-convenor	Ms. Priti Sharma	M. Pharma	7088986035	
3	Faculty Co In-charge	Mr. Nilay Kumar Nandi	Pharmacy	9667970491	nilay.nandi@miet.ac.in
4	Lab Attendant	Ms. Priyanka Gupta	Pharmacy	8934891356	Guptapriyanka05503@gmail.com

# 1.3 OBJECTIVES

A vertical collage of scientific images including a hand holding a blue molecular model, a white mouse, a laboratory flask with yellow liquid, a green molecular structure, a hand holding a blue pipette, and a petri dish with red agar and yellow colonies.

1

Design the multi-step synthetic processes

2

Custom synthesis & research services for

- Pharmaceuticals (Organic molecules)
- Organic fluorescent dyes
- Synthesis of Impurities
- Synthesis of Metabolites
- mg to 100 g scale
- Cosmetics

3

Analytical evaluation of the intermediates & final products

4

Computer-aided drug design/ in-silico drug design

5

- Flexible business model with efficient & better quality,
- Flexible & Client driven services
- Realistic Pricing & Timeline

## 1.4 GRANTS & COLLABORATION

### Consultancy

The CCRD has provided chemical testing services for cosmeceutical and nutraceutical products, generating a revenue of Rs. 5.00 lakh.

### Collaboration

The CCRD has collaborated with the University of Sharjah, UAE, to design and develop anticancer agents, generating a revenue of Rs. 76,000/-.

### AICTE IDEA Lab Ideathon 2023

The CCRD team participated in the AICTE IDEA Lab Ideathon 2023 and won an award of Rs. 1,000 for their project on "Revolutionizing Skin Infection & Allergy Diagnosis With AI-Enabled Smart Phone Cameras".



# 1.5 Activities / Events Organized

## Training on Rotary Evaporator

The CCRD organized a training session on the use of a rotary evaporator, a crucial piece of equipment in pharmaceutical research and development.

The training was conducted at the Department of Pharmaceutical Technology level, with a total of 80 participants.

The training session was held in January 2024 at the CCRD facilities.



# 1.6 Outcomes



## Publications

The CCRD has produced a range of high-quality publications in peer-reviewed journals, covering topics such as neuroprotection, smart materials, central nervous system disorders, and rational drug design.



## Patents

The CCRD has also been involved in the development of novel technologies, with several patent applications in the pipeline.



## Product Development

The center's research and development efforts have led to the successful development of new pharmaceutical products and formulations.

S. No.	Date	Name of the Outcome (Publication / Presentation / Patent / Copyright / Product Developed etc.)	Title	Author(s) / Contributor(s)
1	Dec 3, 2023	Publication	Multifaceted neuroprotective role of Punicalagin: A Review Accepted; Neurochemical research	Siddiqui N, Tripathi PN
2	Nov 30, 2023	Publication	Smart Materials Design For Emerging Applications: Bacterial And Anti-Bacterial	Anurag Chaudhary, Neha Krishnarth, Prabhash Nath Tripathi, Amrendra Kumar Chaudhary, Chandrababu Rejeeth, Alok Sharma
3	Sep 2023	Publication	A Central Nervous System Disorder: Dementia	L Singh, V Verma, GP Mishra, Prabhash Nath Tripathi
4	Sep 2023	Publication	Design Synthesis & Evaluation of Multi TargEted Therapeutics on Alzheimer's Disease	L Singh, V Verma, GP Mishra, Prabhash Nath Tripathi
5	Sep 2023	Publication	Synthesis, Characterization, & Molecular Docking of Statins Rational Drug Design Approach	Pravin Kumar Singh, Saravanan K, Prabhash Nath Tripathi, Omkar Singh
6	Jul-2022	Publication	Synthesis, characterization, and biological evaluation of some novel $\gamma$ -aminobutyric acid aminotransferase (GABA-AT) inhibitors	Sushant Kumar Shrivastava, Waiker, Akash Verma, Prabhash Nath Tripathi, Bhagwati Bhardwaj & Poorvi Saraf
7	Dec-2022	Publication	Novel 5, 6-diphenyl-1, 2, 4-triazine-3-thiol derivatives as dual COX-2/5-LOX inhibitors devoid of cardiotoxicity	Poorvi Saraf, Prabhash Nath Tripathi, Avanish Tripathi
8	Sep-22	Publication	The Recent Updates on Neoteric Variants of Covid-19 Virus and Therapeutic Effectiveness of Vaccines against the Variants	Abdel-Nasser El-Shorbagi, Sachin Chaudhary, Anurag Chaudhary, Garima Agarwal, Prabhash Nath Tripathi, Shweta Dumoga
9	Sep 2023	Publication	Nanofertilizers Formulations and Applications	Prabhash Nath Tripathi, Ankit Lodhi, Mohd Talib, Anurag Chaudhary, Nazia Siddiqui, Lavdeep Singh
10	Sep 2023	Publication	Nanopestisizers Formulations and Applications	Anurag Chaudhary, Kashi, Prabhash Nath Tripathi
11	March 2024	Publication	Exploration of oxadiazole clubbed benzhydrylpiperazine pharmacophoric features as structural feature for antidepressant activity: In vitro, vivo and in silico analysis	Nandi NK, Das S, Choudhary D, Saini S, Bhatia R, Chawla P, Kaur R, Kalra S, Rawat R, Eyupoglu V, Kumar B.
12	May 2024	Publication	Review of Pharmacotherapeutic Targets in Alzheimer's Disease and Its Management Using Traditional Medicinal Plants	PN Tripathi, A Lodhi, SN Rai, NK Nandi, S Dumoga, P Yadav, AK Tiwari



**THANK YOU**

