# Sandeep Chaudhary

**Office Address:** 

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#### Work Experience

04 Oct, 2023 – Present	t Honorary Professor, Perm State University, Russia.		
21 Feb, 2022 – Present	Dean, NIPER-Raebareli, Lucknow, Uttar Pradesh 226301, INDIA.		
04 Aug, 2021 – Present	t <i>Head of the Department (HoD)</i> , Department of Medicinal Chemistry, NIPER-Raebareli, Lucknow, Uttar Pradesh 226301, INDIA.		
04 Jun, 2021 – Present	Associate Professor, Department of Medicinal Chemistry, NIPER-Raebareli, Lucknow, Uttar Pradesh 226301, INDIA.		
11 Feb, 2019 – 03 June	e, 2021 Assistant Professor Grade I, Department of Chemistry, MNIT Jaipur-302017, INDIA.		
03 Oct, 2012 – 10 Feb,	2019 Assistant Professor Grade II, Department of Chemistry, MNIT Jaipur-302017, INDIA.		
Aug, 2013 – Aug, 2015	Adjunct Faculty, Materials Research Centre, MNIT Jaipur-302017, Rajasthan, INDIA.		
Nov, 2010 – Sep, 2012	JSPS Postdoctoral Fellow, MCRF-Institute of Microbial Chemistry, Tokyo, JAPAN.		
	(Advisor: <b>Prof. Dr. Masakatsu Shibasaki,</b> Emeritus Professor, University of Tokyo & University of Hokkaido)		
Aug, 2009 – Oct, 2010	<b>Postdoctoral Fellow</b> (NIH), The City University of New York at Hunter College, New York, USA. (Advisor: <b>Prof. Wayne W. Harding</b> )		
Jan, 2008 – July, 2009	<b>Postdoctoral Fellow</b> (NCRR-NIH), The City University of New York at Hunter College, New York, USA. (Advisor: <b>Prof. Wayne W. Harding</b> )		
<b>Education</b>			
Feb, 2002- Aug, 2007	<b>Ph.D</b> from Division of Medicinal & Process Chemistry, CSIR-CDRI Lucknow [Affiliated to Jawaharlal Nehru University (JNU), New Delhi]; India. (Advisor: <b>Prof. Dr. Chandan Singh</b> )		
2002-2003	<b>Pre-PhD</b> Course work (2 Semester) on Organic & Medicinal Chemistry, conducted jointly by JNU, New Delhi & CDRI, Lucknow.		
1997-1999	M.Sc Chemistry (Specialization in Organic Chemistry), DDU Gorakhpur University, India.		
1994-1997	B.Sc (Chemistry, Botany & Zoology), St. Andrew's College (DDU Gorakhpur University), India.		
Academic and Professional Awards			

Award	University/Research Organization /Funding Sponsor	Year
Letter of Appreciation	Japan Information Centre, Embassy of Japan, MEXT Research Fellowships, New Delhi	2020-2024
AD Scientific Index Ranking	World Scientist and University Ranking	2021-2024
Guest of Honour at Valedictory ceremony	International Conference cum Workshop on "Alternatives to animal experiments: Exploring imminent possibilities in preclinical drug discovery using computational tools" AAE-2023 at Amity Institute of Pharmacy, Amity University, UP.	3 Nov, 2023
"Certificate of Reviewing" by Journals- Bioorganic Chemistry, Journal of Molecular Structure	Elsevier, Amsterdam, The Netherlands	2019
VIFA 2016 Outstanding Faculty Award	Venus International Foundation, Chennai	2016
BMCL Certificate of Outstanding Contribution in Reviewing	Elsevier, Amsterdam, The Netherlands	2015, 2017
BMCL Certificate of Reviewing	Elsevier, Amsterdam, The Netherlands	2015, 2017
DST-SERB Young Scientist Award	<b>Department of Science and Technology</b> , Ministry of HRDG, New Delhi	2014
Certificate of Appreciation	American Chemical Society, U.S.A	2013
<b>2012 Top 10 Best Reviewer award</b> for "Bioorganic and Medicinal Chemistry Letters" Journal	Elsevier B.V. Registered Office, Amsterdam, The Netherlands & BMCL Regional Journal Office, Tokyo, Japan	2012
JSPS Postdoctoral Fellowship	Japan Society for the Promotion of Science, Japan Host Institute: Institute of Microbial Chemistry, Microbial Chemistry Research Foundation (IMC-MCRF), Tokyo, Japan	2010 - 2012
Postdoctoral Fellowship (NIH)	The City University of New York at Hunter College, New York, U.S.A Funding agency: National Institute of Drug Abuse (NIDA), National Institute of Health (NIH), U.S.A	2009-2010
Postdoctoral Fellowship (NCRR-NIH)	The City University of New York at Hunter College, New York, U.S.A Funding agency: National Centre for Research Resources (NCRR), National Institute of Health (NIH), U.S.A	2008-2009
CSIR S.R.F	Council of Scientific & Industrial Research, New Delhi, India	Jul, 2005
CSIR J.R.F	Council of Scientific & Industrial Research, New Delhi, India	Jul, 2003
CSIR-NET (Lectureship) (3 times Qualified)	CSIR-UGC, New Delhi, India	Jun, <b>2002</b> Dec, <b>2001</b> Jun, <b>2001</b>
GATE	Six old IIT's & IISc, Bangalore, India	Apr, 2002
CDRI PGRT	Ministry of Health (MOH), New Delhi, India	Feb, 2002
ASRB NET Certificate	Agricultural Scientist Recruitment Board, New Delhi, India	Oct, 2001
Research Entrance Test	DDU Gorakhpur University, India	Mar, <b>2001</b>

### **Teaching Experience (~ > 12 years)**

#### At NIPER-Raebareli

**M.Pharm level:** MC 620 Logics in Organic Synthesis-II; MC 511 Spectral Analysis; MC 520 Logic in Organic Synthesis-1; MC 650 Stereochemistry and Drug Action; GE 511 and GE 611: Seminar; LG 510 and LG 610: Laboratory experience.

**Ph.D level:** MC 810 Principle of Peptide Chemistry; MC 710 Stereoselective and Stereospecific synthesis; MC 730 - Organometallic and Sustainable Chemistry in the Synthesis of Pharmaceuticals.

#### At MNIT Jaipur

At UG level: CYT 101 Engineering Chemistry (Theory, Tutorial & Practical's)					
At PG (M.Sc 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> Seme	ster) Level:				
CYT 513 Organic Chemistry	CYT 632 Organic Synthesis	CYT 635 Bioorganic Synthesis			
CYT 601 Bio-inorganic Chemistry	CYT 611 Stereochemistry, structur	e & reaction mechanism of Organic			
compounds					
CYT 514 Analytical Chemistry	CYT 638 Heterocyclic Chemistry	CYT 643 Pharmaceutical Chemistry			
CYP604 Chemistry Practicals	<b>CYP614</b> Organic Chemistry Practicals	<b>CYT 603</b> Analytical Chemistry			

#### Achievements in Nutshell

<b>Sponsored Projects Ongoing</b> = 01 <b>Sponsored Projects Applied</b> = 05	<b>Sponsored Projects Completed =</b> 15	<b>Projects as Host Researcher</b> = 04
<b>Total List of Publications in SCI</b> <b>journals</b> = ~87 [h-index: 23, i10 index 45, Citation: 1648]	<b>Invited Talks / Plenary lecture/</b> <b>Chaired Session</b> = 67	<b>Conferences</b> / Workshops / <b>Invited lectures organized</b> = 04
<b>Patents</b> = 04 [03 patents in process] <b>Book Chapter</b> = 11 (01 under revision)	International Conferences = 21National/InternationalCollaborations: 22	International/ National Conferences with proceedings = 72
Teaching Experience: ~12 years Research Experience: 4 years 9 months as Postdoc & 11 years 09 months as Asst. / Asso. Prof. Total Working Experience = >16 years	MOU Signed between MNIT Jaipur and PGNIU, Perm, Russia Foreign Expert in International Project funded by Ministry of Education and Science, Perm, Russia	Postdoc Supervision: 04 Ph.D Supervision: 14 (08 completed & 06 ongoing) PG Project Supervision: Completed (41 Students) Ongoing (05 Students)

#### **International / National Assignments:**

- (a) **Selection Committee Member** (Life Science-Biomedical Sciences) DST INSPIRE FACULTY FELLOWS under INSPIRE Faculty Fellowship component of Inspire Scheme, DST, GOI
- (b) **Selection Committee Member** (Chemical Sciences) DST INSPIRE FACULTY FELLOWS under INSPIRE Faculty Fellowship component of Inspire Scheme, DST, GOI
- (c) Selection Committee Member (Chemistry), MEXT Research Fellowship 2020, 2021, 2022, 2023 and 2024, Embassy of Japan, Government of Japan.
- (d) SERB Grant Reviewer, SERB, 2023
- (e) French Grant Reviewer Committee Member, French National Research Agency (ANR), 2021 Generic Call for Proposal (AAPG2021), France.

#### **Research Areas**

- Medicinal Chemistry, Drug Discovery & Process Development: Mechanism/target/structure-based drug discovery, lead generation and lead optimization; Design, Synthesis and SAR study of new bioactive molecules/NCE's, particularly in the field of novel antimalarials, antitubercular, anti-infective agents, anticancer agents and neurodegenerative disorders.
- Organo-catalyzed C-H bond activation / Transition metal-catalyzed C—C & C—N bond formation: Exploration with special emphasis by the use of cheaper transition metals; design and development of new metalligand catalyst systems and their investigations in direct arylation reactions. Investigation of cross coupling, hydroarylations, and Cyclization as well as addition reactions via development of metal-ligand catalytic systems.
- Development of New Synthetic Methodologies.
- Total synthesis of biologically active Natural Products/Drugs/Therapeutics.
- Green chemistry: Application of microwave-assisted/ ultrasound-assisted organic transformations; Explorations of organic reactions either under solvent-free conditions or using cheap innocuous alternate reaction media such as water and ionic liquids.
- Asymmetric catalysis / Synthesis: Development of catalytic asymmetric reactions, Design and development of new metallo-catalyst and organo-catalysts, development of direct catalytic asymmetric C-C bond-forming transformations.
- Development towards anticancer drug delivery systems.
- Analytical and Bioanalytical Method Development and Validation
- Impurity Profiling: Identification and Characterization of Impurities in Drug/lead Substances

- Forced Degradation Studies and Characterization of Degradation products
- Development and evaluation of drugs/formulations for heavy metal toxicity

# Sponsored Projects Ongoing

1. ICMR Grant (Adhoc) in collaboration with AIIMS New Delhi (2022-2025).

**Funding Agency: ICMR (2021-2024)**; Total Sanctioned Amount: Rs. 88,98,000/- **NIPER-R Share:** ~12.50 lakhs **Project Title:** Discovering the anti-inflammatory effects of novel Toll-like receptor signaling inhibitors on rheumatoid arthritis mononuclear cells and synovial fibroblasts: An in vitro study to identify TLR signaling inhibition as future potential strategy to control inflammation in rheumatoid arthritis.

# Projects Completed as PI

- Core Research Grant (CRG) in collaboration with AIIMS New Delhi (2020-2024). Funding Agency: SERB (2020-2024); Total Sanctioned Amount: Rs. 67,81,480/- NIPER-R Share: 5.225 lakhs Project Title: Exploring the immunomodulatory activities of novel Toll-like receptor-signaling inhibitors in peripheral blood mononuclear cells from lupus patients: A study to identify TLRs as drug targets for lupus.
- Indo-Russian International Project
   Funding Agency: Department of Science and Education, Perm, Russia Federation (2019-2022); Sanctioned Amount: 45 lakhs
   Project Titles Nites and Operating Action of Science and Education, Perm, Russia Federation (2019-2022); Sanctioned

**Project Title:** Nitrogen- and Oxygen- containing heterocycles in the synthesis of drugs - from research to practice.

4. FDCT Indo-Macao International Project (in collaboration with Macao University of Science and Technology (MUST), Macao, China)

Funding Agency: FDCT (2020-2021); Total Sanctioned Amount: 4,95,000 MOP (~ Rs. 45,82,764/-)

**Project Title:** Investigation of Ozonide analogs for overcoming drug resistance in cancer and study of their mechanism of action.

5. DST-NRF Indo-South Africa Joint Research Project

Funding Agency: DST (2016-2019); Sanctioned Amount: 33.36 lakhs

**Project Title:** Development of innovative Indigenous knowledge system (IKS)-based new cosmetic raw material: Isolation, extraction and chemical profiling of melanin biosynthesis pathways-based natural compounds from Indian and South-African medicinal plants.

# 6. DST-ARRS Indo-Slovenian Joint Research Project

Funding Agency: DST (2015-2018); Sanctioned Amount: 14.5 lakhs

**Project Title:** Exploring Antimalarial Peroxides from Bench-side to Bedside: Synthesis, Chemistry, Antimalarial Assessment and SAR studies of Novel functionalized 1, 2, 4-Trioxanes and 1, 2, 4, 5-Tetraoxanes against Multi-drug Resistant Malaria.

# 7. DST-RFBR Indo-Russian Joint Research Project

Funding Agency: DST (2014-2016); Sanctioned Amount: 26.236 lakhs

**Project Title:** Exploring nitrogen-based heterocycles from bench-side to bedside: Synthesis, chemistry, stereochemical assignment, structure-activity relationship studies and biological evaluation.

# 8. CSIR Research Grant

**Funding Agency: CSIR (2014-2017)**; Sanctioned Amount: 24.75 lakhs **Project Title:** Strategic investigation of organo-catalyzed direct arylation of arenes and hetero-arenes via sp<sup>2</sup> C-H bond activation: Application to an efficient synthesis of bioactive heterocycles.

# 9. DST-SERB Start-up Research Grant (Young Scientist)

**Funding Agency:** SERB-DST (2014-2017); Sanctioned Amount: 25 lakhs **Project Title:** Exploring non-opioid analgesics from bench-side to bedside: An efficient, cost-effective, asymmetric synthesis and SAR study of new non-opioid anti-pain lead compound, Conolidine.

#### 10. Organizing International Conference - "Current Challenges in Drug Discovery Research (CCDDR 2015)" Funding Agency: SERB (23<sup>rd</sup> Nov- 25<sup>th</sup> Nov, 2015); Sanctioned Amount: 0.75 lakh

# 11. Seed Grant (2013-2016)

Funding Agency: MNIT Jaipur; Sanctioned Amount: 16 lakhs

**Project Title:** Chemo- and regio-selective transition metal-catalyzed asymmetric hydroarylation of methylenecyclobutanes and methylenecyclopentanes.

# Projects Completed as Co-PI

12. TEQIP III "Collaborative Research Scheme (CRS)" Scheme Project with GEC, Jhalawar, Rajasthan Funding Agency: NPIU, TEQIP III, New Delhi under MHRD; Sanctioned Amount: 23.80 lakhs

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**Project Title**: Strategic Investigation of Organocatalyzed Direct sp<sup>2</sup> C-H Arylation methodology on Antimalarial lead Cassiarin F Alkaloids: A Potential Chemotherapeutic approach towards Antimalarial Drug Development.

13. TEQIP III "Collaborative Research Scheme (CRS)" Scheme Project with GWEC, Ajmer, Rajasthan Funding Agency: NPIU, TEQIP III, New Delhi under MHRD; Sanctioned Amount: 18.30 lakhs Project Title: Small Molecule Fluorescent Probes for amyloid-beta for the detection of Alzheimer's disease.

#### Sponsored Projects completed as Host Researcher

- 14. SERB-DST Young Scientist Scheme; Sanctioned Amount: 33.17 lakhs Funding Agency: SERB-DST (2016-2017)
  - **Project Title:** Synthesis of hetero-substituted amino acids via C (sp<sup>3</sup>)-H functionalization and its applications.
- 15. SERB National Postdoctoral Fellowship; Sanctioned Amount: 19.20 lakhs Funding Agency: SERB-DST (2016-2018) Project Title: Strategic Investigation of Novel Pincer-Based metal-catalyzed sp<sup>2</sup> and sp<sup>3</sup> C-H bond activation reactions: Application towards the synthesis of Novel Bioheterocycles.
- 16. CSIR-RA (Direct)

#### Funding Agency: CSIR (2017-2020)

**Project Title:** Design and synthesis of responsive cholesteryl-lipoic acid conjugates for drug transport to resistant cancer cell lines.

#### List of Publications in Peer-reviewed Journals (H index =23, i10 index 45, Total citations = 1635)

- Chaudhary, S.\*; Gaikwad, A. N.; Sinha, S.; Manju, Y. K.; Yadav, D. K.; Sharon, A.; Chaturvedi, V.\* "Identification of Novel 1,2,4-Trioxolanes (Ozonides) Derived from Artemisinin as a New Class of Antitubercular Agents: Synthesis, in vitro/in vivo screening, cytotoxicity, structure-activity relationship and molecular docking studies", J. Med. Chem., 2024, (Under review) (I.F = 7.3)
- Rahaman, A.T.A.; Nandini; Tantra, T.; Chaudhary, S.\* "Natural-Product-Inspired Anticancer Drug Discovery: Structure-Activity Relationship Insights, Applications, and Future Perspectives" Med Res Rev., 2024 (Under review) (I.F = 13.3)
- Shyamlal, B. R. K.; Mahajan, A.T.; Kumar, V.; Gupta, A.; Ronin, R. S.; Mathur, M.; Sen, J.; Chaudhary, S.\* "N-Arylsulphonated C-Homoaporphine Analogues as a New Class of Antiplatelet and Antifungal Agents: Synthesis, Bioevaluation, Structure-Activity Relationship and in silico studies" ChemistrySelect. 2024 (Under review) (I.F = 4.5)
- 4. Shivani; Rahaman, A.T.A.; **Chaudhary, S.\*** "*Targeting Cancer using Scaffold-Hopping Approaches: Illuminating SAR to Improve Drug Design*" *Drug Discov. Today*, **2024**, 29(9), 1-16. DOI: <u>https://doi.org/10.1016/j.drudis.2024.104115</u> (**I.F** = **6.5**)
- Mahajan, A.T.; Shivani; Datusalia, A.K.; Coluccini, C.\*; Coghi, P.\*; Chaudhary, S.\* "Pyrazolo[1,5-a]pyrimidine as a Prominent Framework for Tropomyosin Receptor Kinase (Trk) Inhibitors— Syn-thetic Strategies and SAR Insights" Molecules, 2024, 29, 3560. DOI: <u>https://doi.org/10.3390/molecules29153560</u> (I.F = 4.2)
- 6. Dubey, N.; Yadav, R. K.;\* Mishra, S.; Shahin, R.; Singh, S.; Dwivedi, D. K.; Chaudhary, S.; Gupta, N. K.; Baeg, J.-O.;\* "Aerobic Acetalization of Ethylene Glycol by Newly Designed Highly Efficient Soft NiO@B@GCN Nanocubes Catalyst" Catal Lett, 2024, 154, 4422-4431. DOI: [https://doi.org/10.1007/s10562-024-04694-y] (IF = 2.3)
- Sharma, R.;<sup>†</sup> Sharma, R.;<sup>†</sup> Yadav, L.; Sahu, N. K.; Mathur, M.; Yadav, D. K.; Pratap, R.; Abuyousef, F.; Ippagunta, S. K.; Saleh, N.;\* Coghi, P.;\* Chaudhary, S.\* "Chemo-/Regio-Selective Ultrasound-Assisted Synthesis of Novel Spirooxindole-Pyrrolidines/Spirooxindole-Pyrrolizines: Synthesis, Antimicrobial and Antitubercular Activities, SAR and in silico Studies" J. Mol. Struct, 2024, 1311, 138377. [DOI: 10.1016/j.molstruc.2024.138377] (I.F = 4.0)
- Pulukool, S. K.;<sup>#</sup> Bhagavatham, S. K. S.;<sup>#</sup> Vijay, S. K.; Almansour, A. I; Chaudhary, S.; Abuyousef, F.; Saleh, N.;<sup>\*</sup> Tripathi, P.\* "Noninvasive Cardiac-Specific Biomarkers for the Diagnosis and Prevention of Vascular Stenosis in Cardiovascular Disorder" Front. Pharmacol. 2024, 15, 1376226. [DOI: <u>10.3389/fphar.2024.1376226</u>] (I.F = 4.4)
- Rahaman, A.T.A.; Rajendra T. N.; Suhas K. P.; Ippagunta, S. K.; "Chaudhary, S." "1,2,4,5-Tetraoxane Derivatives/ Hybrids as Potent Antimalarial Endoperoxides: Chronological Advancements and Future Perspectives" Med Res Rev., 2024, 44, 2266-2290. [DOI: 10.1002/med.22040] (I.F = 10.9)
- 10. Sahu, N. K.; Priyanka, Mahajan, A.T.; Sharma, V.; Suhas, K. P.; Tripathi, P.; Mathur, M.; Jain, M.;\* Chaudhary, S.\* "'Cephalandole A' Analogues as a New Class of Antioxidant Agents: Design, Microwave-Assisted Synthesis, Bioevaluation, SAR and In Silico Studies" *J*. Mol. Struct. 2023, 1303, 137445. [DOI: 10.1016/j.molstruc.2023.137445] (I.F = **4.0**)
- 11. Singh, S.; Yadav, R. K.;\* Umar A.;\* Ibrahim, A. A.; Kim, T. W.; Singh, A. P.; Kumar, R.; Chaudhary, S.; Dwivedi, D. K.; Singh, R. V.; Gupta, N. K.; Singh, C.; Baeg, J. -O.;\* Baskoutas, S. "Transformation of PMMA from sunlight-

blocking to sunlight-activated coupled with DNH photocatalytic platform for oxidative coupling of amines and generation/regeneration of LDC/NADH" Photochem. Photobiol., **2023**, Accepted. [DOI: <u>10.1111/php.13888</u>] [I.F = **2.6**]

- Sharma, R.; Yadav, L.; Nasim, A. A.; Yadav, R. K.; Ruihong, C.; Kumari, N.; Ruiqi, F.; Sharon, A.; Sahu, N.K.; Ippagunta, S. K.; Coghi, P.;\* Wong, V. K. W.;\* Chaudhary S.\* "Chemo-/Regio-Selective Synthesis of Novel Functionalized Spiro[pyrrolidine-2,3'-oxindoles] under Microwave Irradiation and Their Anticancer Activity" Molecules 2023, 28, 6503. [DOI: 10.3390/molecules28186503] (I.F = 4.2)
- Shchepina, N. E.; Alexandrova, G. A.; Balandina, S. Y.; Boiko, I. I.; Chaudhary, S.;\* Shchepin, R. V.\* "Antifungal Activity of N-Arylbenzoquinaldinium Derivatives against a Clinical Strain of M. Canis" Indian J Dermatol 2023, 68, 487-491. [DOI: <u>10.4103/ijd.IJD\_261\_16</u>] (I.F = 1.7)
- 14. Sahu, N.K.;<sup>†</sup> Sharma, R.;<sup>†</sup> Suhas, K.P.; Joshi, J.; Prakash, K.; Sharma, R.; Pratap, R.; Hu, X.; Kaur, S.; Jain, M.; Coluccini, C.;\* Coghi, P.;\* Chaudhary, S.\* "Natural-Product-Inspired Microwave-Assisted Synthesis of Novel Spirooxindoles as Antileishmanial Agents: Synthesis, Stereochemical Assignment, Bioevaluation, SAR, and Molecular Docking Studies" Molecules 2023, 28(12), 4817-4837. [DOI: 10.3390/molecules28124817] (I.F = 4.2)
- Sharma, R.; Tiwari M. K.; Nasim A. A.; Yadav D. K.; Coghi P.\*; Wong, V. K. W.;\* Chaudhary S.\* "Artemisinin-Inspired Novel Functionalized Aryloxy-Arylvinyl-1,2,4-trioxanes as Potent Anticancer Agents: Design, Synthesis, Bioevaluation, SAR and in silico Studies" J. Mol. Struct, 2023, 1288, 135707. [DOI: <u>10.1016/j.molstruc.2023.135707</u>] (I.F = 4.0)
- Sharma, R.; Rahaman, A.T.A.; Sen, J.; Mashevskaya, I. V.; Chaudhary, S.\* "Discovering the role of N-Heterocyclic Carbene as Hydrogen Borrowing Organocatalyst: Metal-free, Direct N-Alkylation of Amines with Benzyl Alcohols" Org. Chem. Frontiers 2023, 10, 730 – 744. [DOI: <u>10.1039/D2Q001522F</u>] (I.F = 4.6)
- Sharma, R.; Chaudhary, S.\* "Regiodivergent Cu-Promoted, AcOH switchable Distal vs Proximal Direct Cyanation of 1-Aryl-1H-Indazoles and 2-Aryl-2H-Indazoles via Aerobic Oxidative C-H Bond Activation" J. Org. Chem. 2022, 87, 24, 16188–16203. DOI: <u>10.1021/acs.joc.2c01603</u> (I.F = 3.3)
- Yadav, L.; Shyamlal, B. R. K.; Tiwari, M. K.; Rahaman, A.T.A.; Sen, J.; Chaudhary, S.\* "TMEDA-Catalyzed Regioselective Decarboalkoxy C-N Bond Formation: A Unified Direct Access to Indolo[2,1-a]isoquinoline and Dibenzopyrrocoline Alkaloids" Chemistry-An Asian Journal, 2022, 17(16), e202200398 [DOI: 10.1002/asia.202200398] (I.F = 3.5)
- 19. Ng, J. P. L.;<sup>†</sup> Tiwari M. K.;<sup>†</sup> Nasim A. A.; Zhang, R. L.; Qu Y.; Sharma, R.; Law, B. Y. K.; Yadav D. K.;<sup>\*</sup> Chaudhary S.\*; Coghi P.\*; Wong, V. K. W.\* "Biological Evaluation in Resistant Cancer Cells and Study of Mechanism of Action of Arylvinyl-1,2,4-Trioxanes" Pharmaceuticals, 2022, 15, 360. [DOI: <u>10.3390/ph15030360</u>] (I.F = 4.3)
- Sharma, R.; Yadav, R. K.; Jain.; M.; Joshi, J.; Chaudhary, S.\* "Oxidant-Switched Palladium-catalyzed Regioselective Mono- versus Bis-ortho-Aroylation of 1-Aryl-1H-indazoles with Aldehydes via C–H Bond Activation" J. Org. Chem., 2022, 87(5), 2668-2685. [DOI: <u>10.1021/acs.joc.1c02628</u>] (I.F = 3.3)
- Lukmanova, D. N.; Pchelintseva, D. I.; Dmitriev, M. V.; Balandina, S. Y.; Mashevskaya, I. V.; Chaudhary, S. "Reaction of Hetareno[e]pyrrole-2,3-diones with Thiols: An Approach to Two Distinct 5-Thio-substituted Pyrrole-2one Derivatives" ChemistrySelect, 2021, 6(45),12623-12627. [DOI: 10.1002/slct.202103243] (I.F = 1.9)
- 22. Shyamlal, B. R. K.; Mathur, M.; Yadav, D. K.; Mashevskaya, I. V.; El-Shazly, M.; Saleh, N.;\* Chaudhary, S.\* "Discovery of Natural Product Inspired 3-Phenyl-1H-isochromen-1-ones as Highly Potent Antioxidant and Antiplatelet Agents: Design, Synthesis, Bio-evaluation, SAR and in silico studies" Current Pharmaceutical Design, 2021, 28(10), 829-840. [DOI: 10.2174/1381612827666211116102031] (I.F = 2.6)
- 23. Tiwari, M. K.;<sup>†</sup> Coghi, P.;<sup>†</sup> Agarwal, P.;<sup>†</sup> Yadav, D. K.; Yang, L. J.; Congling, Q.; Sahal, D.;<sup>\*</sup> Wong, V. K.W.;<sup>\*</sup> Chaudhary, S.<sup>\*</sup> "Novel Halogenated Arylvinyl-1,2,4 Trioxanes as Potent Antiplasmodial as well as Anticancer Agents: Synthesis, Bioevaluation, Structure-Activity Relationship and in-silico Studies" Eur. J. Med. Chem., 2021, 224, 113685. (I.F = 6.0) [DOI: 10.1016/j.ejmech.2021.113685]
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#### **Book Chapters**

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- 1. Mahajan, A. T.; Shyamlal, B.R. K.; Kumar, V.; Gupta, A.; Sen, J.; Ronin, R. R.; Mathur, M.; Chaudhary, S.\* "*Natural-Product-Inspired Synthesis of C-Homoaporphine Alkaloids as a New Class of Antiplatelet and Antimicrobial Agents*" 18-19 Dec, 2023 International Symposium on 4th Flow Chemistry and Natural Product Synthesis, organized by NIPER-Kolkata, W.B.
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- Sharma, V.; Jaiswal, P. K. and Chaudhary, S. (Nov, 2015), "Studies towards Benzo (1, 4) oxazine-2-one based novel antifungal agents: Design, Synthesis and their in vitro antifungal activities" 23<sup>rd</sup>-25<sup>th</sup> Nov, 2015 Abstracts of papers ISBN No. 978-93-84869-93-9 (PP-181) International Conference on "Current Challenges in Drug Discovery Research CCDDR-2015", MNIT Jaipur-302017, Rajasthan, India.
- 50. Sharma, V.; Jaiswal, P. K. and Chaudhary, S. (Nov, 2015), "Microwave-assisted green synthesis of novel functionalized Benzo (1, 4) oxazine analogues and their Anti-oxidant activity" 23<sup>rd</sup>-25<sup>th</sup> Nov, 2015 Abstracts of papers ISBN No. 978-93-84869-93-9 (PP-182) International Conference on "Current Challenges in Drug Discovery Research CCDDR-2015", MNIT Jaipur-302017, Rajasthan, India.
- 51. Poster presentation, Sharma, V.; Jaiswal, P. K.; Prikhodko, J. I.; Mathur, M.; Swami, A. K.; Mashevskaya, I. V.; and Chaudhary, S. (PP-235)"Microwave-assisted synthesis of five-membered 2,3-dioxo-heterocycles and their antifungal, anti-bacterial and anti-oxidant activity evaluation", National conference on "Frontiers at the Chemistry-Allied Interface" (FCASI-2015), 13<sup>th</sup>-14<sup>th</sup> March, 2015, Centre of Advanced Study, Department of Chemistry, University of Rajasthan, Jaipur-302017, India.
- 52. Poster presentation, Jaiswal, P. k.; Chaudhary, S.; and Samanta, S. (PP-234) "A novel C-C bond forming domino approach for the direct synthesis of highly substituted tetrahydrocarbazoles and carbazoles under organocatalytic environment", National conference on "Frontiers at the Chemistry-Allied Sciences Interface (FCASI-2015), 13<sup>th</sup>-14<sup>th</sup> March, 2015, Centre of Advanced Study, Department of Chemistry, University of Rajasthan, Jaipur-302017, India.
- 53. Chaudhary, S. (27 Feb, 2015) "An enantioselective synthesis of an anti-hypercholesterolemic drug atorvastatin calcium (Lipitor) via direct catalytic asymmetric aldol reaction of thioamides", 21<sup>st</sup> ISCB international conference (ISCBC 2015)-Current trends in drug discovery and developments, CSIR-Central Drug Research Institute, Lucknow, India.
- 54. Poster presentation, Pradeep k. Jaiswal, Chaudhary, S.; and Sampak Samanta (27 Feb, 2015) "An organocatalytic novel C-C bond forming approach for the direct synthesis of highly substituted tetrahydrocarbazoles and carbazoles", 21<sup>st</sup> ISCB international conference (ISCBC 2015)-Current trends in drug discovery and developments, CSIR-Central Drug Research Institute, Lucknow, India.
- 55. Poster presentation, Chaudhary, S.; Naikade, N. K. & Singh, C. (26 Sep, 2014) "<sup>1</sup>O<sub>2</sub>-Mediated Photo-oxygenation Ene Reaction on Artemisinin-Linked Allyl Alcohols: An Efficient methodology to Generate Antimalarial Artemisinin-1,2,4-Trioxane hybrid", 3<sup>rd</sup> international conference on Advanced oxidation Process (AOP 2014), East end Hotel, Munnar, Organized by Mahatma Gandhi University, Kottayam, Kerala, India
- 56. Poster presentation, Chaudhary, S.; Puri, S. K. & Singh, C. (Mar, 2014) "Novel seco-artemisinin analogues: Design, synthesis and in vivo antimalarial assessment in search for putative antimalarial structural motif via pruning of artemisinin framework", 20<sup>th</sup> ISCBC international conference on Chemistry and Medicinal Plants in Translational Medicine for Healthcare (ISCBC 2014), Dept. of Chemistry, University of Delhi, India.
- 57. Chaudhary, S. and Harding, W. W. (December, 2012), "Microwave-Assisted Direct Arylation for the Synthesis of Novel Aporphines as 5-HT<sub>2a</sub> and α<sub>1A</sub> Receptor Antagonist" Abstracts of papers "Chemistry for a Sustainable future" International workshop on Green Chemistry, Jaipur, Rajasthan, India.
- 58. *Poster presentation*, **Chaudhary**, **S.** *"Frontiers of medicinal science"* 8<sup>th</sup> AFMC International medicinal chemistry symposium (AIMECS), **Nov-Dec**, **2011**, Tokyo, JAPAN.
- 59. Poster presentation, Chaudhary, S. "Chembiomolecular Science: at the frontier of Chemistry and Biology", The Uehara memorial foundation international symposium, (June, 2011), Tokyo, JAPAN.

- 60. Chaudhary, S. and Harding, W. W. (August 2010), "Synthesis of homoaporphines via microwave-assisted direct arylation", Abstracts of papers in Sci Finder and Poster presentation, 240th ACS national meetings & expositions, Boston, MA, U.S.A.
- 61. Pecic, S.; Chaudhary, S.; Navarro, H. A.; and Harding, W. W. (March, 2010), "*Nantenine analogs as 5-HT<sub>2A</sub> receptor antagonists: Synthesis, biological evaluations and receptor docking studies*", Abstracts of papers in Sci Finder and *Poster presentation*, 239th ACS national meetings & expositions, San Francisco, California, U.S.A.
- 62. Chaudhary, S. and Harding, W. W. (August, 2009), "Application of microwave-assisted direct biaryl coupling reaction for the synthesis of aporphine alkaloids" Abstracts of papers in SciFinder and Poster presentation, 238th ACS national meetings & expositions, Washington D C, U.S.A.
- 63. Pecic, S.; Chaudhary, S.; Legendre, O.; and Harding, W. W. (August, 2008), "Development of 5HT<sub>2A</sub> antagonists based on the aporphine alkaloid nantenine" Abstracts of papers in Sci Finder & Poster presentation, 236th ACS national meetings & expositions, Philadelphia, Pennsylvania, U.S.A.
- 64. *Poster presentation*, **Chaudhary**, **S.**; Gaikwad, A. N.; Sinha, S.; Chaturvedi, V. Manju, Y. K. and Singh, C. (Feb, 2007) "*Artemisinin derived stable ozonides: Synthesis and antitubercular activities*", 3<sup>rd</sup> international symposium on current trends in drug discovery research (**CTDDR-2007**), CSIR-Central Drug Research Institute, Lucknow, India.
- 65. Poster presentation, **Chaudhary, S.**; Puri, S. K. and Singh, C. (Jan, **2006**) "Novel orally active C-10α ester analogues of dihydroartemisinin as antimalarials", Joint international conference on building bridges, forging bonds for 21<sup>st</sup> century organic chemistry and chemical biology (ACS CSIR OCCB-2006), CSIR-National Chemical Laboratory, Pune India.
- 66. *Poster presentation*, **Chaudhary**, **S**.; Puri, S. K. & Singh, C. (Feb, **2004**) "*Orally active artemisinin derivatives*", 2<sup>nd</sup> international symposium on current trends in drug discovery research (**CTDDR-2004**), CSIR-Central Drug Research Institute, Lucknow, India.

#### Presentations/ Participation in International/National Meetings/ Workshops/ Sponsored Programs

- 1. Attended National Seminar on "Novel Paradigms in Controlled Drug Delivery to Strengthen Innovation and Translation in Pharmaceutical Formulations" Organized by NIPER-Raebareli in Collaboration with "Controlled Release Society-Indian Chapter (CRSIC)", Hotel Hilton Garden Inn, Gomti Nagar, Lucknow on Dec 22, 2023.
- 2. Attended International Webinar (Online mode) on 'Post-COVID Challenges and opportunities for the chemist', jointly organized by Indian Science Congress Association (Delhi Chapter) and Department of Chemistry, University of Delhi on **Dec 28, 2021**.
- 3. Attended International Virtual Workshop 'Bioelectronic Medicine', jointly organized by IIT (BHU) Varanasi and IISc Bangalore and co-hosted by the Henry Royce Institute, The University of Manchester, UK on **Dec 16, 2021**.
- 4. Attended RSC-IISER Desktop Seminar with OBC, organized by RSC publishing Webinars, Royal Society of Chemistry, UK on Nov 25, 2021.
- 5. Attended RSC-IISER Desktop Seminar with ChemComm, organized by RSC publishing Webinars, Royal Society of Chemistry, UK on Aug 06, 2021.
- 6. Attended 1<sup>st</sup> Virtual International Symposium on C-H Bond activation, **2021**, organized by Georg-August-Universität Göttingen, Germany from **27-30 July**, **2021**.
- 7. Certified and Attended E-seminar on "Research and Ethics" on 8<sup>th</sup> July, 2020 Organized by Department of Applied Science, SAGE Institute of Research and Technology, SAGE University, Indore (M.P).
- 8. Participated in International e-Symposium on "Diversification of Indian Agricultures: Ancient to Modern" Organized by School of Agriculture, Suresh Gyan Vihar University, Jaipur from **17-18 June**, **2020**.
- 9. Attended 3 days Online National Workshop in Structural Bioinformatics in "*In Silico Techniques in Drug Designing*", **2020**, Jointly organized by Bioinformatics Centre (SubDIC), Department of Biotechnology, Barkatullah University, Bhopal & Corporate Institute of Pharmacy, Bhopal from **27-29 May**, **2020**.
- 10. Attended/Participated in "Workshop on the Application of Direct Analysis in Real Time Mass Spectroscopy (DART-MS) Techniques, 24-25 Sep, 2013, CSIR-CDRI, Lucknow.
- 11. Attended/Participated in "Brainstorming Conference/Workshop on Science, Technology and Innovation Policy (STI Policy, DST), 2013" organized by MNIT Jaipur (**30<sup>th</sup> April, 2013**), India.
- 12. National Workshop attended on "Modern Sophisticated Instruments", Indian Institute of Technology, Indore (Feb, 2013), India.
- 13. "21st Symposium on optically active compounds" Institute of microbial chemistry, Microbial chemistry research foundation, **Nov**, 2011, Tokyo, JAPAN.
- 14. Workshop attended on "*Responsible conduct of research*", (May, **2010**), the City University of New York, New York, U.S.A.

- 15. "Sponsored Program & Funding: CUNY postdoctoral development program", (April, 2010), The City University of New York, U.S.A.
- 16. "*Autism: Integrating genes, brain and behavior*" 23<sup>rd</sup> annual international symposium, (Jan, **2010**), Center for study of gene structure & function, The City University of New York, New York, U.S.A.
- 17. Workshop attended on "*Responsible conduct of research*", (Oct, **2009**), The City University of New York, New York, U.S.A.
- 18. "Autism: Integrating genes, brain and behavior" 22<sup>nd</sup> Annual International Symposium, (Jan, **2009**), Center for study of gene structure & function, the city university of New York, New York, U.S.A.
- 19. Workshop attended on "*CUNY Postdoc development programme*", (Oct, **2008**), The City University of New York, New York, U.S.A.

#### <u>Conferences/ Workshops/ Symposia /Short Term Training Programme/ Short Term Course/ Community</u> Development Programme (CDP) / Faculty Development Programme (FDP)/ Invited lectures

- 1. *International Symposium* on "*Toxicology and Applied Pharmacology*" at NIPER-Raebareli on 29-30 Sep, 2022. (as **Patron**)
- SERB-DST Sponsored International Conference on "Current Challenges in Drug Discovery Research" CCDDR 2015 at Department of Chemistry, MNIT Jaipur on 23-25 Nov, 2015. (as Convener & Organizing Secretary, CCDDR 2015)
- 3. "*AIDS Awareness Programme*" as part of Community Development Programme organized at Department of Chemistry, MNIT Jaipur on 1<sup>st</sup> Dec, **2014**. (as Programme Coordinator)
- 4. "*CANCER Awareness Programme*" as part of Community Development Programme organized at Department of Chemistry, MNIT Jaipur on 19<sup>th</sup> Nov, **2014**. (as Programme Coordinator)
- 5. Served as *Programme coordinator* for organizing several "*Invited Lecture*" by eminent expert in the Department of Chemistry, MNIT Jaipur from 2013-2015.

#### Invited Talks/ Plenary lecture/ Chaired Session

- KEYNOTE LECTURE delivered in National Conference entitled "Drug Discovery in Pharmaceutical Sciences and its Future Prospectives" on title "Artemisinin, A Sesquiterpene Peroxide-based Antimalarial Drug: A Major Breakthrough in the Chemotherapy of Malaria" Organized by Siddhartha Institute of Pharmacy, Dehradun on 9 May, 2024 in collaboration with APTI, Uttarakhand and Uttarakhand Technical University, Dehradun, India.
- KEYNOTE LECTURE on "Exploration of Artemisinin Analogues as Potent Antimalarials: A Journey towards Drug discovery and development" 26-27 Apr, 2024 International Conference on "Recent Advances in Biotechnology & Biomedical Sciences" (BIOTECH NEXUS 2024), organized by Suresh Gyan Vihar University- Biotechnology Business Incubator and School of Applied Sciences, SGVU, Jaipur, India.
- 3. CHAIRED SESSION "Oral Presentation Session-VII" on 26-27 Apr, 2024 at International Conference on "Recent Advances in Biotechnology & Biomedical Sciences" (BIOTECH NEXUS 2024), organized by Suresh Gyan Vihar University- Biotechnology Business Incubator and School of Applied Sciences, SGVU, Jaipur, India.
- 4. **Invited Lecture** on "*Exploration of Natural-Product-Inspired Bioactive Alkaloids and Terpenes: Synthetic Strategies and Practical Applications*" **20-21 Mar, 2024** *National Conference on Recent Trends in Chemical Sciences Research and Future prospects (NCRTCSRFP 2024)*, organized by Department of Chemistry, St. Andrew's College, Gorakhpur-273008, U.P., India.
- CHAIRED SESSION at "Oral Session-I: 3:00 PM 6:30 PM Best Oral Presentation Award Competition" 16-18 Feb, 2024 International Conference on Traditional Medicine & Phytopharmaceuticals, and the 11th International Congress of the Society for Ethnopharmacology (ICTMP-SFEC 2024), organized by Natural Product and Medicinal Chemistry Division, CSIR-IIIM, Jammu-180001, J.K., India.
- 6. **Invited Lecture** on "*Exploration of Natural-Product-Inspired Bioactive Alkaloids/Terpenes: Synthetic Strategies and Applications*" **16-18 Feb, 2024** *International Conference on Traditional Medicine & Phytopharmaceuticals, and the 11th International Congress of the Society for Ethnopharmacology (ICTMP-SFEC 2024)*, organized by Natural Product and Medicinal Chemistry Division, CSIR-IIIM, Jammu-180001, J.K., India.
- 7. Chairperson in National Seminar on "Novel Paradigms in Controlled Drug Delivery to Strengthen Innovation and Translation in Pharmaceutical Formulations" organized by NIPER-Raebareli in collaboration with Controlled Release Society-Indian Chapter(CRSIC) on 22 Dec, 2023.

- 8. CHAIRED SESSION at "Sessions II- Natural Product Synthesis 18 Dec, 2023" "18-19 Dec, 2023 International Symposium on 4th Flow Chemistry and Natural Product Synthesis, organized by Department of Medicinal Chemistry, NIPER-Kolkata, W.B.
- 9. Invited Lecture on "Artemisinin, A Sesquiterpene Peroxide-based Antimalarial Drug: A Nobel Medicine for Malaria" 18-19 Dec, 2023 International Symposium on 4th Flow Chemistry and Natural Product Synthesis, organized by Department of Medicinal Chemistry, NIPER-Kolkata, W.B.
- 10. **KEYNOTE SPEAKER** on "An Overview of Drug Discovery: Journey from bench-side to Bed-side" at Valedictory ceremony of International Conference cum Workshop on "Alternatives to animal experiments: Exploring imminent possibilities in preclinical drug discovery using computational tools" [AAE-2023] at Amity Institute of Pharmacy, Amity University, Lucknow campus (UP)" held on **3 Nov, 2023**.
- 11. CHAIRED SESSION at "*Parallel Sessions IX-C 18 Nov, 2022*" 16-19 Nov, 2022 "27<sup>th</sup> ISCBC-2022 International Conference on Research and Innovation in Chemical, Pharmaceutical and Biological Sciences", organized at Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi (JH).
- Invited Lecture on "Oxidant-Promoted, Palladium-catalyzed, Regioselective Synthesis of Bioactive Heterocycles via C-H Bond Activation: Chemistry on 1-Aryl-1H-indazoles and 2-Aryl-2H-indazoles" 16-19 Nov, 2022 "27<sup>th</sup> ISCBC-2022 International Conference on Research and Innovation in Chemical, Pharmaceutical and Biological Sciences", organized at Department of Chemistry, Birla Institute of Technology, Mesra, Ranchi (JH).
- 13. CHAIRED SESSION at "T-5 Development of key intermediates and APIs" 11 Nov, 2022 "International Conference on Recent Trends and Future Opportunities in Pharmaceuticals (NIPER PHARMACON-2022)", organized at NIPER-SAS Nagar, Punjab.
- 14. Oral Presentation on "Synthetic Halogenated Arylvinyl-1,2,4 Trioxanes as Potential Anticancer Agents: Synthesis, Bioevaluation, SAR and In-silico Studies" 10-12 Nov, 2022 "International Conference on Recent Trends and Future Opportunities in Pharmaceuticals (NIPER PHARMACON-2022)", organized at NIPER-SAS Nagar, Punjab.
- 15. ONLINE Invited Lecture on "An Enantioselective Synthesis of an Anti-hypercholesterolemic drug Atorvastatin Calcium (Lipitor)" in NIPER Research Symposium, organized by NIPER-Kolkata, India on 15<sup>th</sup> Feb, 2022.
- 16. ONLINE Invited Lecture on "Practical Approaches in C-H Bond Activation: Theory and Practical Applications" at ALL RUSSIAN SCIENTIFIC AND PRACTICAL CONFERENCE WITH INTERNATIONAL PARTICIPATION on "RESOURCE-SAVING AND ENVIRONMENTALLY FRIENDLY PROCESSES IN CHEMISTRY AND CHEMICAL TECHNOLOGY" held on 8 Dec, 2021 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 6<sup>th</sup> – 8<sup>th</sup> Dec, 2021.
- 17. ONLINE Plenary Lecture on "Oxidative Cross-Dehydrogenative Coupling (CDC) via C<sub>(sp<sup>2</sup>)</sub>-H bond Functionalization: tert-Butyl Peroxybenzoate-promoted Regioselective Direct C-3 Acylation/ Benzoylation of 2H-Indazoles with Aldehydes/Benzyl Alcohols /Styrenes" at ALL RUSSIAN SCIENTIFIC AND PRACTICAL CONFERENCE WITH INTERNATIONAL PARTICIPATION on "RESOURCE-SAVING AND ENVIRONMENTALLY FRIENDLY PROCESSES IN CHEMISTRY AND CHEMICAL TECHNOLOGY" held on 8 Dec, 2021 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 6<sup>th</sup> 8<sup>th</sup> Dec, 2021.
- 18. ONLINE Plenary Lecture on "Oxidant-Promoted C-H Bond Activation Reactions: Chemistry and Practical Approaches Towards Natural-Product-Inspired Bio-Heterocycles" at ALL RUSSIAN SCIENTIFIC AND PRACTICAL CONFERENCE WITH INTERNATIONAL PARTICIPATION on "RESOURCE-SAVING AND ENVIRONMENTALLY FRIENDLY PROCESSES IN CHEMISTRY AND CHEMICAL TECHNOLOGY" held on 7 Dec, 2021 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 6<sup>th</sup> 8<sup>th</sup> Dec, 2021.
- ONLINE Plenary Lecture on "Organocatalyzed C-H Bond Activation Reactions: Environmentally Benign Strategies towards the Synthesis of Bioactive Heterocycles" at ALL RUSSIAN SCIENTIFIC AND PRACTICAL CONFERENCE WITH INTERNATIONAL PARTICIPATION on "RESOURCE-SAVING AND ENVIRONMENTALLY FRIENDLY PROCESSES IN CHEMISTRY AND CHEMICAL TECHNOLOGY" held on 6 Dec, 2021 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 6<sup>th</sup> – 8<sup>th</sup> Dec, 2021.
- 20. ONLINE Invited Lecture on "Microwave-Assisted, Regio-/Stereo-selective Synthesis of Novel Functionalized Spiro[pyrrolidine-2',3'-oxindoles]: Design, X-Ray Crystal Studies, Anticancer Activities and SAR Studies" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 19<sup>th</sup> Nov, 2021.
- 21. ONLINE Invited Lecture on "Novel functionalized para-(Aryloxy)-Arylvinyl-1,2,4 Trioxanes as Anticancer Agents: Synthesis, Bioevaluation and SAR Studies" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 19<sup>th</sup> Nov, 2021.

- 22. ONLINE Invited Lecture on "Ultrasound-Assisted Synthesis of Novel Spirooxindole Derivatives via One-Pot Three-Component 1,3-Dipolar Cycloaddition Reactions: Synthesis, Stereochemical Assignment, Antimicrobial and Antitubercular Activities, SAR and in silico Studies" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 18<sup>th</sup> Nov, 2021.
- 23. ONLINE Invited Lecture on "Oxidative Cross-Dehydrogenative Coupling (CDC) via C<sub>(sp<sup>2</sup>)</sub>-H bond Functionalization: tert-Butyl Peroxybenzoate (TBPB)-promoted Regioselective Direct C-3 Acylation/Benzoylation of 2H-Indazoles with Aldehydes/Benzyl Alcohols/Styrenes" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 18<sup>th</sup> Nov, 2021.
- 24. ONLINE Invited Lecture on "Pd-Catalyzed Oxidant Switched Regioselective Mono- and Bis-ortho-Aroylation of 1-Aryl-1H-Indazole with Aldehydes via  $C_{(sp}{}^2)$ —H Bond Activation" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 17<sup>th</sup> Nov, 2021.
- 25. ONLINE Invited Lecture on "*N*-Heterocyclic Carbene-Catalyzed Deoxygenative  $\alpha$ -Benzylation of Ketones via  $C_{(sp)}^{3}$ -H bond activation: Synthesis, Chemistry, and Practical Applications" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 17<sup>th</sup> Nov, 2021.
- 26. ONLINE Invited Lecture on "Cu-Catalyzed C-N Bond formation via C<sub>(sp<sup>2</sup>)</sub>-H bond functionalization: Application to the synthesis of Novel 2-Phenyl-5H-imidazo[2,1-b][1,3]thiazin-5-ones Sulphonamide Hybrids" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 16<sup>th</sup> Nov, 2021.
- 27. ONLINE Invited Lecture on "Microwave-Assisted Synthesis of 2-Phenyl-5H-imidazo[2,1-b][1,3]thiazin-5-ones: Design, Synthesis, Chemistry and Photophysical and Cytotoxicity Activity" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 16<sup>th</sup> Nov, 2021.
- 28. ONLINE Invited Lecture on "Lewis Acid/Oxidant as Rapid Regioselective Halogenating Reagent System for Direct Halogenation of Fused Bi-/Tri-cyclic Hetero-aromatic Congeners via C<sub>(sp</sub><sup>2</sup>)-H bond Functionalization" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> Nov, 2021.
- 29. ONLINE Invited Lecture on "Metal-Free,  $H_2O_2$ -Mediated, Regioselective Direct C-3 Hydroxylation of Imidazo[1,2a]pyridines via  $C_{(sp}^2)$ -H Bond Functionalization" in "Perm Scientific Forum: Science and Global Challenges of the XXI century" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> Nov, 2021.
- ONLINE CHAIRED SESSION at Virtual International Conference on 'Emerging Trends in Medicinal Chemistry– 2021' (ETMC-2021) organized by the Department of Chemistry, S. V. National Institute of Technology (SV NIT), Surat on 18<sup>th</sup> - 19<sup>th</sup> March, 2021.
- ONLINE Invited Lecture on "Transition-Metal-Free/Oxidant-Promoted C<sub>(sp</sub><sup>2</sup>)-H Bond Activation/ Functionalization Reactions: Chemistry and Practical Approaches towards Bioactive Heterocycles" at Virtual International Conference on 'Emerging Trends in Medicinal Chemistry–2021' (ETMC-2021) organized by the Department of Chemistry, S. V. National Institute of Technology (SV NIT), Surat during 18<sup>th</sup> - 19<sup>th</sup> March, 2021.
- 32. ONLINE Invited Lecture on "Learning and Teaching Online in Indian Education System During Covid-19 Pandemic: An Overview" at V Prikamsky congress of Chemistry Teachers "Continuous chemical education- trends and directions of developments" held on 5<sup>th</sup> Nov, 2020 at the Faculty of Chemistry, Perm State University, Perm, Russia on 5<sup>th</sup> Nov, 2020.
- 33. ONLINE Invited Lecture on "Transition Metal-Free Direct Coupling of Aldehydes with Terminal Alkynes: An Efficient Process for the Synthesis of Pharmaceutically Privileged α, β-Unsaturated Ketones (Chalcones) and Propargylic Alcohols" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 30<sup>th</sup> Oct, 2020.
- 34. **ONLINE Invited Lecture** on "2,3-Bis-(2-pyridyl)Pyrazine as an Efficient Organocatalyst for the Direct  $C_{(sp}^2)$ -H Arylation of Unactivated Arenes/Heteroarenes" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on **30<sup>th</sup> Oct**, **2020**.
- 35. ONLINE Invited Lecture on "Novel Functionalized 1,2,4-Trioxanes as Antimalarial and Anticancer agents: Synthesis, Chemistry, Bioevaluation, SAR and in silico studies" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 29<sup>th</sup> Oct, 2020.

- 36. ONLINE Invited Lecture on "Microwave-Assisted Synthesis of C<sub>8</sub>-Substituted Methylxanthines via Cross-Dehydrogenative Coupling (CDC) Strategy: Synthesis, Chemistry, Bioevaluation and their Practical Applications" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 29<sup>th</sup> Oct, 2020.
- 37. ONLINE Invited Lecture on "Novel C-Homoaporphine Analogues: Synthesis, Chemistry, Bioevaluation and their Structure-Activity Relationship studies" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 26<sup>th</sup> Oct, 2020.
- 38. ONLINE Invited Lecture on "C-3 Tethered isobenzofuran-1(3H)-ones and ortho-Substituted-1H-isochromen-1-ones as Potent Antioxidant and Antiplatelet Agents: Design, Synthesis, Biological Evaluation, SAR and in silico Studies" at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 26<sup>th</sup> Oct, 2020.
- 39. ONLINE Invited Lecture on "Organocatalyzed Decarboethoxy C-N Bond Formation: Application to the Synthesis of Indolo[2,1-a]isoquinoline and Dibenzopyrrocolone Alkaloids" at All-Russian Scientific Conference with International Participation on "Organic Chemistry for Agriculture and Medicine" held on 22 Oct, 2020 [5:00 PM-5:30 PM] at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 20<sup>th</sup> 22<sup>nd</sup> Oct, 2020.
- 40. ONLINE Invited Lecture on "Metal-Free, Oxidant-Promoted, Csp<sup>2</sup>-Csp<sup>3</sup> Cross-Dehydrogenative Coupling: Chemistry and its Practical Application" at All-Russian Scientific Conference with International Participation on "Organic Chemistry for Agriculture and Medicine" held on 22 Oct, 2020 [4:30 PM-5:00 PM] at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 20<sup>th</sup> 22<sup>nd</sup> Oct, 2020.
- ONLINE Plenary Lecture on "Organocatalysis in C<sub>(sp<sup>2</sup>)</sub>-H Bond Activation Reactions: Chemistry and Applications to the Synthesis of Bioactive Heterocycles" at All-Russian Scientific Conference with International Participation on "Organic Chemistry for Agriculture and Medicine" held on 21 Oct, 2020 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 20<sup>th</sup> 22<sup>nd</sup> Oct, 2020.
- "Metal-Free C-H Bond Activation Reactions: Approach to Access Bioactive Heterocycles via Modifying Guareschi-Thorpe & Favorskii Reactions" at 28<sup>th</sup>-29<sup>th</sup> Feb, 2019 International Conference on "Frontier Areas of Chemistry (ICFAC) 2020", Department of Chemistry, School of Physical Sciences, Mahatma Gandhi Central University, Motihari, Bihar-845401, India.
- 43. Plenary Lecture on "Artemisinin, a Nobel Medicine: A Booming Drug in Antimalarial Chemotherapy" at 4<sup>th</sup> International Conference on Pharmacy and Pharmaceutical Sciences 2019 with the Theme: "Innovative Approaches, analysis and Developments in Pharmacy and Pharmaceutical Science" (4<sup>th</sup> ICPPS, 2019) on 14 Dec, 2019 at Bangkok, Thailand from December 13<sup>th</sup> 14<sup>th</sup>, 2019.
- 44. "Exploration of natural product inspired bioactive heterocycles from bench-side to bed-side: A journey towards drug discovery and development." on 17 May, 2019 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> 18<sup>st</sup> May, 2019.
- 45. "Development of Organocatalyzed sp2 C-H bond activation reactions: Synthesis, Chemistry, Scope and its practical applications" on 17 May, 2019 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> 18<sup>st</sup> May, 2019.
- 46. "Ag<sub>2</sub>O nanoparticle-catalyzed substrate-controlled regioselectivities: Direct access to bioactive 3-ylidenephthalides and isocoumarins" on 16 May, 2019 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> – 18<sup>st</sup> May, 2019.
- 47. Invited Lecture on "Indian education system: An overview" at IV Prikamsky congress of Chemistry Teachers "Continuous chemical education- trends and directions of developments" held on 17 May, 2019 at the Faculty of Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> 18<sup>st</sup> May, 2019.
- 48. Plenary Lecture on "Carbonyl compounds as universal synthetic precursors for the direct access to natural product inspired bioactive pyridine-based heterocycles" at International Conference on "Polycarbonyl compounds 2019 dedicated to the 85th anniversary of Yu. S. Andrejchikov" held on 15 May, 2019 at the Faculty of Chemistry, Department of Organic Chemistry, Perm State University, Perm, Russia on 15<sup>th</sup> 18<sup>st</sup> May, 2019.
- 49. "Role of Chemistry in Drug Discovery: Current Scenario, Scope and Future Opportunities" at the Faculty of Basic and Applied Science, Vivekananda Global University, Jaipur on **31 January**, **2019**.
- 50. "Recent Development in Interdisciplinary Research in Chemical Sciences at Laboratory of Organic and Medicinal Chemistry, MNIT Jaipur" at National Workshop on "MIND-MELD How Interdisciplinary are you" held at Manipal University, Jaipur on 29 July, 2017.
- 51. "*Transition metal-catalyzed/Organo-Catalyzed C-H Bond Activation/Functionalization: Scope and Applications*" at Faculty of Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia. on **27<sup>th</sup> Dec**, **2016**.
- 52. Plenary Lecture on "Artemisinin Derived Stable Ozonides: Synthesis, Chemistry, X-ray studies, in vitro and in vivo Antitubercular activities, SAR and molecular docking studies" at International Conference on "Current Trends in

Chemical Sciences" held at Department of Organic Chemistry, Perm State University, Perm, Russia on 19<sup>th</sup> – 21<sup>st</sup> Oct, 2016.

- 53. "Recent developments in the Chemistry and biology of Antimalarial drug Artemisinin" at National Conference (OCSD-2016) on "Organic Chemistry in Sustainable Development: Recent Advances and Future Challenges" held at Department of Chemistry, Birla Institute of Science and Technology (BITS) Pilani, Pilani, India on 29<sup>th</sup>-30<sup>th</sup> August, 2016.
- 54. "*Carbon-Carbon Bond Forming Reactions: Classical vs Modern*" at Department of Chemistry, Goa University, Goa, India on **22nd March, 2016**.
- 55. "*Recent Advances in Antimalarial Peroxide-based Natural Product, Artemisinin: A Nobel Medicine for Malaria*" at Department of Chemistry, Birla Institute of Science and Technology (BITS) Pilani-Goa Campus, Goa, India on **21st March, 2016**.
- 56. "*Recent Advances in Antimalarial Peroxide-based Chemotherapy for Malaria: Artemisinin, A Nobel Medicine*" at One Day Symposium (ETACS-2016) on "Emerging Trends in Applied Chemical Sciences (ETACS-2016)" held at Department of Chemistry, School of Chemical Sciences and Pharmacy, Central University of Rajasthan, Bandarsindri, Kishangarh, Ajmer, India on 18th March, 2016.
- 57. "Artemisinin, an Nobel Medicine: Still Only Drug of Choice for the Treatment of Malaria" at Department of Chemistry, Mohanlal Sukhadia University, Udaipur, India on 23th February, 2016.
- 58. "*Wittig Reaction in Organic Synthesis*" at Department of Chemistry, Alankar P.G. Girls College (Affiliated to University of Rajasthan), Jaipur, India on **12th February**, **2016**.
- 59. "Discovery of Artemisinin as Nobel medicine: A Gift from Traditional Chinese herb Artemisia Annua" at Department of Chemistry, Sardar Vallabhbhai National Institute of Technology, Surat, India on **9th February**, **2016**.
- 60. "Perspective and Challenges in Antimalarial Chemotherapy: Design and Synthesis of Novel Artemisinin Analogues as Antimalarials" at 22nd ISCB International Conference (ISCBC-2016) on "Recent Trends in Affordable and sustainable Drug Discovery and Developments" held at Uka Tarsadia University, Bardoli, Surat, India on 6th February, 2016.
- 61. "Stable Bio-active Novel Peroxides: Synthesis, Chemistry and their Biological Evaluation" at Department of Chemistry, University of Ljubljana, Ljubljana, Slovenia on 10<sup>th</sup> September, 2015.
- 62. "Systematic Investigation of Bio-active Ozonides and Aza-Peroxides: Synthesis, Chemistry and their Biological Evaluation" at Department of Physical and Organic Chemistry, Jožef Stefan Institute, Ljubljana, Slovenia on 8<sup>th</sup> September, 2015.
- 63. "Synthesis of Aza-heterocyclic compounds via transition metal-catalyzed direct arylation strategy" at Department of Organic Chemistry, Faculty of Chemistry, Perm State University, Perm, Russia on 25<sup>rd</sup> March, 2015.
- 64. "Synthesis, Chemistry and Bioevaluation of Antimalarial Peroxide Drug Artemisinin" at Department of Organic Chemistry, Faculty of Chemistry, Perm State University, Perm, Russia on 23<sup>rd</sup> March, 2015.
- 65. "An enantioselective synthesis of an anti-hypercholesterolemic drug atorvastatin calcium (Lipitor) via direct catalytic asymmetric aldol reaction of thioamides" in 21<sup>st</sup> ISCB International Conference on Current Trends in Drug Discovery and Developments (ISCBC-2015), Jointly organized by ISCB, India and CSIR-CDRI, Lucknow, India on 25<sup>th</sup>-28<sup>th</sup> Feb, **2015**. (oral presentation)
- 66. "Artemisinin analogues: Synthesis, Chemistry and antimalarial assessment" UGC-Sponsored National Conference on Current Trends in Chemical Sciences (NCCTCS 2014), 15<sup>th</sup>-16<sup>th</sup> Oct, 2014, Department of Chemistry, St. Andrew's College, Gorakhpur, India.
- 67. "Transition metal-catalyzed C-C bond formation via C-H bond activation: Versatility and practicality in natural product synthesis" Chemical Society (30<sup>th</sup> Oct, **2013**), Department of Chemistry, St. Andrew's College, Gorakhpur, India.
- 68. "Direct catalytic asymmetric aldol reaction of thioamides-An efficient route to atorvastatin calcium (Lipitor)" Intra-Institute Conference (24 Feb, **2012**), Microbial Chemistry Research Foundation, Tokyo, Japan

#### Current National /International Collaborations (2024-2027)

- 1. **Prof. Irina V. Mashevskaya**, Department of Organic Chemistry, Faculty of Chemistry, Perm State University, Perm, Russia Federation.
- 2. **Prof. Dr. Paolo Coghi and Prof. Vincent Wong**, Macau Institute for Applied Research in Medicine and Health, State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology, Taipa, Macau, China.
- 3. Prof. Carmine Coluccini, Institute of New Drug Development, China Medical University, Taiwan.
- 4. **Prof. Na'il Saleh**, Department of Chemistry, College of Science, United Arab Emirates (UAE) University, Al Ain, United Arab Emirates.

#### National/International Collaborations (2013-2023)

- 5. **Dr. Dharmendra Kumar Yadav**, College of Pharmacy, Gachon University of Medicine and Science, Yeonsu-gu, Incheon City, 21924, Korea
- 6. **Prof. Andrey N. Maslivets**, Department of Organic Chemistry, Faculty of Chemistry, Perm State University, Perm, Russia Federation.
- 7. **Prof. Mohamed El-Shazly**, Department of Pharmaceutical Biology, Faculty of Pharmacy and Biotechnology, The German University in Cairo, Cairo, Egypt.
- 8. Dr. Vinita Chaturvedi, CSIR-CDRI, Lucknow.
- 9. **Prof. Jernej Iskra**, Laboratory of Organic & Bioorganic Chemistry, Department of Physical and Organic Chemistry (K-3), "Jozef Stefan" Institute, Jamova 39, 1000 Ljubljana, Slovenia. (*DST-ARRS Indo-Slovenia Project*)
- 10. **Prof. Stojan Stavber**, Laboratory of Organic & Bioorganic Chemistry, Department of Physical and Organic Chemistry (K-3), "Jozef Stefan" Institute, Jamova 39, 1000 Ljubljana, Slovenia. (*DST-ARRS Indo-Slovenia Project*)
- 11. Prof. Kristof Kranjc, Department of Chemistry and Biochemistry, University of Ljubljana, Slovenia.
- 12. Prof. Franc Perdih, Department of Chemistry and Biochemistry, University of Ljubljana, Slovenia.
- 13. Department of Advance Molecular Microbiology, M/s Seminal Applied Sciences Pvt. Ltd, Jaipur.
- 14. **Dr. Roman V. Shchepin**, Department of Radiology & Radiological Sciences, Vanderbilt University, Institute of Imaging Science, Vanderbilt University Medical Center, Nashville, Tennessee, USA.
- 15. **Prof. Nadezhda Shchepina**, Head of the Laboratory of Radiochemistry, Natural Sciences Institute of Perm State University, 4, Genkel St., Perm-614990, Russia.
- 16. **Prof. Nonhlanhla P. Khumalo**, Hair and Skin Research lab, Head of Dermatology, Groote Schuur Hospital & the University of Cape Town, Capetown, South Africa.
- 17. **Dr. Ahmed Mohammed**, Department of Chemistry, Faculty of the Natural Sciences, University of the Western Cape, Cape Town, South Africa.
- 18. **Prof.** (**Dr.**) **S. L. Kothari**, FBS, FISPM, FNAAS, FNASc Dy. Vice Chancellor, Director, Amity Institute of Biotechnology, Amity University Rajasthan, Jaipur. [Former Dean (Science) and Director, Centre for Convergent Technology, University of Rajasthan, Jaipur]
- 19. **Prof. Lester M. Davids,** Redox laboratory, Department of Human Biology, Health Sciences faculty, University of Cape Town Medical School, Cape Town, South Africa. (*DST-NRF Indo-South Africa Project*)
- 20. **Prof. Paturu Kondaiah**, Department of Molecular Reproduction, Development and Genetics, Indian Institute of Science, Bangalore-560012, India.
- 21. **Dr. Rajbala Verma**, Department of Zoology, University of Rajasthan, Jaipur-302004, India. (Biological Investigation = Antitubercular, Antimicrobials, Antioxidants, Antiplatelets etc.)
- 22. Dr. Dinkar Sahal, International Centre for Genetic Engineering and Biotechnology. Aruna Asaf Ali Marg, New Delhi, New Delhi. (*Antimalarial Drug Development Programme*)
- 23. Dr. Ramendra Pratap, Department of Chemistry, University of Delhi.

## **International Visits**

- 1. Visited **Bangkok, Thailand** to deliver **Plenary lecture in International Conference** on Pharmacy and Pharmaceutical Sciences 2019 with the Theme: "*Innovative Approaches, analysis and Developments in Pharmacy and Pharmaceutical Science*" (4<sup>th</sup> ICPPS, 2019) from 13<sup>th</sup> -14<sup>th</sup> Dec 2019.
- Visited Perm State University, Department of Organic Chemistry, Perm, Russian Federation under Indo-Russian International Project (under the agreement C-25/174.5 from 31-01-2019; work contract No. 1-01-10, MOU between MNIT Jaipur and PGNIU, Perm, Russian Federation) from 14<sup>th</sup> -19<sup>th</sup> May, 2019.
- 3. Visited Laboratory of Organic and Bioorganic Chemistry, Department of Physical and Organic Chemistry (K-3), "Jozef Stefan" Institute, Ljubljana, SLOVENIA under the DST-ARRS Indo-Slovenian joint research project. (*DST/INT/Slovenia/P-14/2014*) from 23<sup>rd</sup> Dec, 2016 to 02<sup>nd</sup> Jan, 2017.
- 4. Visited Perm State University, Department of Organic Chemistry, **Perm, Russian Federation** under DST-RFBR Indo-Russian Joint Research Project (*DST/INT/RFBR/P-169*) from 10<sup>th</sup> -22<sup>nd</sup> Oct, 2016.
- Visited Laboratory of Organic and Bioorganic Chemistry, Department of Physical and Organic Chemistry (K-3), "Jozef Stefan" Institute, Ljubljana, SLOVENIA under the DST-ARRS Indo-Slovenian joint research project. (DST/INT/Slovenia/P-14/2014) from 5<sup>th</sup> -14<sup>th</sup> Sep, 2015.
- 6. Visited Perm State University, Department of Organic Chemistry, **Perm, Russian Federation** under DST-RFBR Indo-Russian Joint Research Project (*DST/INT/RFBR/P-169*) from 18<sup>th</sup> -31<sup>st</sup> March, 2015.

### Facilities Established at NIPER Raebareli:

In Department of Medicinal Chemistry: Established "Laboratory of Bioactive Heterocycles and Catalysis (BHC lab)" having all basic chemistry-based facilities.

#### **Facilities Established at MNIT Jaipur:**

**Committee Member at Institute Level:** ECS 400 MHz Jeol NMR, Gevo G-2 QTOF LCMS & HRMS (ESI), FT-IR, UV-Vis fluorescence, N2 gas plant, Powder X-RD, Tunnel Electron Microscope (TEM), Scanning electron microscope (SEM), MW-reactor and many other small instruments TGA, DSC, Fume Hood.

In Department of Chemistry: Established "Laboratory of Organic and Medicinal Chemistry (OMC lab)" having all basic chemistry-based facilities.

#### **Postdoc Supervision (01)**

Coming soon

Ph.D Supervision [14 Students: 08 Awarded and 06 Ongoing]

S. No.	Name of Ph.D student	Title of Thesis	Status
1.	Dr. Vashundhra Sharma (Jan, 2013- Dec, 2017)	Synthetic Studies towards Coupling Reactions: Chemistry and Biology of Bio-Active Alkaloids	Thesis submitted on 05-12-2017 & Ph.D awarded on 22-12-2018 ( <b>2018</b> )
2.	Dr. Ritu Sharma (Jan, 2014-Feb, 2019)	Synthesis, Chemistry and Bio-evaluation of some Biologically active Heterocycles	Thesis submitted on 21-02-2019 & Ph.D awarded on 03-12-2019 ( <b>2019</b> )
3.	Dr. Mohit K. Tiwari (July, 2014- Dec, 2019)	Synthetic Studies on Pharmaceutically Privileged Bioactive Heterocycles: Synthesis, Chemistry & Biological Evaluation	Thesis submitted on 31-12-2019 & Ph.D awarded on 07-07-2020 ( <b>2020</b> )
4.	Dr. Bharti Rajesh Kumar Shyamlal (July, 2014-July, 2020)	Studies towards Natural Product-Inspired Bioactive Heterocycles: Synthesis, Chemistry and their Medicinal Applications	Thesis submitted on 27-07-2020 & Ph.D awarded on 10-02-2021 ( <b>2021</b> )
5.	Dr. Lalit Yadav (Jan, 2015- July, 2020)	Synthetic Studies Towards Organocatalyzed $C_{(sp^2)}$ -H Bond Activation Reactions: Development of New Strategies for the Synthesis of Bioactive Heterocycles	Thesis submitted on 26-08-2020 & Ph.D awarded on 11-02-2021 ( <b>2021</b> )
6.	Dr. Ravi Kant Yadav (July, 2016-Sep, 2021)	Studies on Bioactive Heterocycles via $C_{(sp}^2)$ -H and $C_{(sp}^3)$ -H Bond Functionalization Reactions: Synthesis, Chemistry and Practical Applications	Thesis submitted on 08-09-2021 & Ph.D awarded on 26-03-2022 ( <b>2022</b> )
7.	Dr. Richa Sharma (Aug, 2019 – July, 2023)	Chemistry on Natural Product Inspired Fused Bio-heterocycles: Synthesis, Functionalizations and its Applications	Thesis submitted on 03-07-2023 & Ph.D awarded on 12-01-2024 ( <b>2024</b> )
8.	<b>Dr. Nawal Kishore Sahu</b> (TEQIP Part-Time Scholar)	Indole-Based Novel Bioactive Alkaloids: Synthesis, Chemistry and Biological Assessment <b>Current Position:</b> Asst. Professor, Govt. Engg. College (Affiliated to RTU, Kota), Bharatpur	Thesis submitted on 20-03-2024 & Ph.D awarded on 24-06-2024 ( <b>2024</b> )
9.	Abdul Rahaman TA	<i>Exploration of Pharmaceutically Privileged Aza-</i> /Oxa-based Heterocycles: Synthesis, Chemistry and Medicinal Applications	Ongoing (Sep, 2021-Present)
10.	Janmejaya Sen	Chemistry on Bioactive Aza-Heterocycles: Synthesis, Methodology Development, and Their Practical Applications	Ongoing (Sep, 2021-Present)
11.	Amol Tarachand Mahajan	Synthetic Studies on Pharmaceutically Important Bioactive Aza-heterocycles: Synthesis, Chemistry and Biological Evaluation	Ongoing (Aug, 2022-Present)
12.	Shivani	Bioactive Heterocycles as Kinase Inhibitors: Synthesis, Chemistry and Biological Assessment	Ongoing (Aug, 2022-Present)
13.	Tanmoy Tantra	Synthetic Studies on Natural Product Inspired Pharmaceutically Relevant Biomolecules: Synthesis, Chemistry and Biological Evaluation	Ongoing (Aug, 2022-Present)

#### <u>ALUMNI</u>

#### Postdoc Supervised (04)

1<sup>st</sup> March, 2016- 28<sup>th</sup> Feb, 2018: Dr. Jaggi Lal, Ph.D (Jiwaji University, Gwalior) SERB N PDF 1<sup>st</sup> April, 2016 – 21<sup>st</sup> Aug, 2017: Dr. Yogesh Kumar, Ph.D (University of Delhi), DST-SERB Young Scientist Scheme 1<sup>st</sup> Oct, 2014 – 30<sup>th</sup> Sep, 2017: Dr. Pradeep k. Jaiswal, Ph.D (CSIR-CDRI, Lucknow), CSIR Project 1<sup>st</sup> May, 2017- 30<sup>th</sup> Apr, 2020: Dr. Krishan Kumar, Ph.D (IISc Bangalore), CSIR-RA

#### M.Pharm (Med Chem)/ M.S. Pharm [Pharmaceutical Analysis] Supervision [Completed 15; Ongoing 10]

S. No.	Name of M.S. Pharm Student(s)	Title of Dissertation / M.S. Thesis	Year of Completion
1.	Idrisi Fatima Bano Zakir Husain (07/MS-MC/24)	Yet to decide	
2.	Khushi Sharma (08/MS- MC/24)	Yet to decide	2024-2026
3.	Kriti (09/MS-MC/24)	Yet to decide	(1 <sup>st</sup> Sem Students)
4.	Divya (62/MS-PA/24)	Yet to decide	Students)
5.	Himanshu Dagar (109/MS- PA/24)	Yet to decide	
6.	Krishna Kumar (1000/MS- MC/23)	Design, Synthesis and In-Silico Studies of Novel Imidazo- Pyridine-Based FGFR4 Inhibitors as Anticancer Agents	
7.	Nirwan Sweety Anil (1003/MS-MC/23)	Design, Synthesis, Bio-evaluation and In Silico Studies of Novel 3,5-Disubstituted-thiazolidine-2,4-diones as NLRP3 Inhibitors against Alzheimer's disease	
8.	Rathod Abhijit Kundalik (1006/MS-MC/23)	Design, Synthesis, Bio-evaluation and in silico studies of novel Piperazine derivatives as Caspase-1 inhibitors against Alzheimer's disease	2023-2025 (Ongoing)
9.	Taufeek Khan (1015/MS-MC/23)	Design, Synthesis, Bioevaluation and In Silico studies of pyrazolo(1,5-a)pyrimidine derivatives as anticancer agents	
10.	Vivek Kumar Gupta (1017/MS-MC/23)	Design, Synthesis and Characterization of Novel Benzimidazole Analogues as Potential Anticancer Agents	
11.	Anand K. Dubey (845/MS-MC/22)	Novel Heteroaryl/Alicyclic-Pyridine Hybrid Analogues as EGFR Inhibitors: Design, Synthesis and In silico Studies	
12.	Arun C (847/MS-MC/22)	Design, Synthesis and In silico Studies of Novel Bioactive Aza-Heterocycles as FGFR4 Inhibitors	
13.	Gaurav Kesharwani (850/MS-MC/22)	Design, Synthesis, and In-silico studies of Novel Quinazoline Analogues as SIRT1 Activator Towards the Development of anti-Parkinson's agents	
14.	Jalasutram Pavani Durga Chaturvedi (854/MS-MC/22)	Design, Synthesis and In silico Studies of Novel Isoxazole Derivatives as TLR antagonists Towards the Development of Anti-Alzheimer's Agents	2024
15.	Tushar Panwar (867/MS-MC/22)	Design, Synthesis, and In Silico Studies of Novel Imidazo[1,2-a]pyridine Derivatives as SIRT 1 Activators Towards the Development of Anti-Alzheimer's Agents	
16.	Vidit Shrivastava (868/MS-MC/22)	Design, Synthesis and In-silico studies of Novel Sulphonylurea derivatives as NLRP3 Inflammasome Inhibitors for the Management of Alzheimer's disease	
17.	Samir Tikaram Sahu (753/MS-MC/21)	Pyrazoles-Based Bioactive Aza-heterocycles as Potential Acetylcholinesterase Inhibitors: Design, Synthesis and In silico Studies	
18.	Kshirsagar Prasad Suhas (746/MS-MC/21)	Novel 3-(Pyridin-2-yl)-1H-Indoles and its Congeners as Anti- Cholinesterase Agents / NMDA Antagonists: Design,	

		Synthesis and In silico Studies	2023
19.	Thakar Neha Rajendra (760/MS-MC/21)	Design, Synthesis and In Silico Studies of Novel 2- Phenylbenzo[d]imidazo[2,1-b]thiazoles and Alicyclic[b]- fused pyridines as Anti-Alzheimer Agents	
20.	Saswat Gaurab Dash (754/MS-MC/21)	Design, Synthesis and In Silico Studies of Functionalized Alicyclic[b]-fused Pyridines as anti-Alzheimer's Agents	
21.	Prem S (751/MS-MC/21)	Design, synthesis and in silico studies of benzyloxy substituted triaryl pyrazole derivatives as anti-Alzheimer agents	
22.	Pooja Prakash Atpadkar (666/MS-MC/20)	Design, synthesis and molecular docking studies of 2-Phenyl- 5H-imidazo[2,1-b][1,3]thiazin-5-ones derivatives as anti- Alzheimer agents	
23.	Tushar M. Boralkar (673/MS-MC/20)	Ultrasonic-Assisted One-pot Multi-component Reaction via 1,3-Dipolar Cycloaddition Reaction: Synthesis of Novel Spirooxindole Derivatives as Anti-Alzheimer Agents	2022
24.	Vedant V. Deshmukh (674/MS-MC/20)	<i>Microwave-Assisted Synthesis of Novel Spirooxindole</i> <i>Derivatives as Anti-Alzheimer Agents</i>	
25.	Yajnashri M (675/MS-MC/20)	Substituted Triaryl Pyrazoles as Anti-Alzheimer Agents: Design, Synthesis and Molecular Docking Studies	

# M.Sc Project Supervision [Completed (26)]

S. No.	Name of M.Sc Student	Title of M.Sc Dissertation / Thesis	Year of Completion
1.	Mukul Yadav (2019PCY5608)	Synthetic Studies Towards Novel 5H-imidazo[2,1- b][1,3]thiazin-5-one and its sulphonamides	
2.	Vishal Yadav (2019PCY5628)	Synthetic Studies Towards phenylimidazo[1,2- a]pyridine and Novel 4H-1,3-Oxazin-2-amine and 5H- Imidazo[2,1-b][1,3]oxazine Class of Heterocycles	2021
3.	Govind (2018PCY5402)	Microwave-Assisted Synthesis of Imidazo[1,2- a]pyridine Class of Heterocycles	
4.	Vikas Kumar (2018PCY5314)	An efficient synthesis of substituted 1-phenethyl- 1,2,3,4-tertahydroisoquinolines: A precursor for the synthesis of bioactive C-homoaporphines	2020
5.	Dinesh Yadav (2017PCY5358)	Synthetic Studies Towards Novel 5H-imidazo[2,1- b][1,3]thiazin-5-one and Isochromeno[4,3-c]chromen- 11(6H)-one Class of Heterocycles	
6.	Shaifali Mittal (2017PCY5353)	Synthesis and Characterization of 2H-Indazole based bioactive heterocycles	
7.	Satyam Doley (2017PCY5311)	Synthetic studies towards novel 4H-1,3-oxazin-2-amine and 5H-imidazo[2,1-b][1,3]oxazine class of heterocycles	2019
8.	Poonam Meena (2016PCY5377)	An efficient synthesis of various 2'- bromoacetophenones and 2-aminothiazines: A starting precursor for the synthesis of various substituted imidazo[2,1-b]azines	2018
9.	Neelam Rawat (2016PCY5141)	Synthesis, Characterization of Curcumin Analogues Bearing Pyrazole/ Pyrimidine Ring Targeting Anti- tyrosinase activity.	
10.	Vishal (2015PCY 5454)	Synthetic studies towards antimalarial peroxides: synthesis of various starting materials for the synthesis of antimalarial bicyclic azaperoxides	
11.	Ruchi Aggarwal (2015PCY5433)	Synthesis of N-substituted indoles: An important precursor for the synthesis of Indole-based natural products	2017
12.	Aarohi Gupta (2015PCY5388)	An efficient synthesis of substituted amides via reaction	

		of various phenethylamines with bromoacids: a starting precursor for the synthesis of bio-active C-	
13.	Renu (2014PCY5302)	Homoaporphines Synthesis, characterization and analytical studies of reaction intermediates- Application towards synthesis of antimicrobial benzo[1,4]oxazines	2017
14.	Sapna Yadav (2014PCY5281)	Synthesis, Characterization and Analytical Study of Reaction Intermediates- Application towards synthesis of antioxidant Benzo[1,4]oxazines	2016
15.	Bhawna Lekhwani (2013PCY7022)	Synthesis and Characterization Of O-Amino Thiophenol	
16.	Mahadeva Singh Jat (2013PCY7038)	Synthesis and Characterization of benzothiazoles	
17.	Pushpa Chaudhary (2013PCY7068)	Synthesis and Characterization of Antimalarial Quinoline derivatives	2015
18.	Kamna Sharma (2013PCY7048)	Synthesis and Characterization of benzodiazipines	
19.	Gurmeet Singh (2013PCY7013)	Synthesis of Versatile intermediate "2H-Pyran-2-ones" for organic transformations	
20.	Monika Choudhary (2012PCY7051)	Synthetic Utilities of Ketene Dithioacetal	
21.	Deep Shikha Vyas (2012PCY7039)	Synthesis and Study of Oral rehydration salt	2014
22.	Hansa Arya (2012PCY7010)	A Simple and Efficient Synthesis of Highly Functionalized 2H-Pyran-2-Ones = Versatile Intermediate for Diverse Transformations	
23.	RajnikantMahawar(2011PCY5062)	Study of Cement Chemistry and its Manufacturing	
24.	Neelam (2011PCY5056)	Pharmaceutical Drug Metronidazole	2013
25.	Sharda Saini (2011PCY5075)	Surface Active Agents	
26.	Manisha Bhagat (2011PCY5072)	Aqueous Film Forming Foam	

### Visiting Researcher

**2014-2015**: Dr. Rajpratap B. Kshatriya, Ph.D (University of Pune); Postdoc (South Africa), RA (ICT, Mumbai), Present Affiliation: Assistant Professor, Uka Tarsadia University, Surat, Gujarat.

#### Research Intern/Visiting Students from other institutions (10 Students)

June-July, 2024: Sweety Yadav, Pt. Deen Dayal Upadhyay Govt. Girls P.G. College (University of Lucknow), U.P.
June-July, 2023: Rewa Dwivedi, Banasthali Vidyapeeth (Deemed University), Rajasthan
15 May – 15 Aug, 2022: Vijeta Choudhary, NIT Warangal
1 June, 2019: Shweta Choudhary, IIS University, Jaipur [*Ph.D* (*Selected*), University of Manchester, UK]
20 May - 31 Aug, 2019: Chitra Goswami, IIS University, Jaipur
20 May - 10 July, 2019: Shagun Singh, and Ruchita Goyal, IIS University, Jaipur
20 May - 10 July, 2019: Shagun Singh, and Ruchita Goyal, IIS University, Jaipur
1 June, 2017-31 May, 2018: Aarohi Gupta [*Ph.D* (*Pursuing*), University of Massachusetts, Amherst, USA]
2017: Mukesh Saharan, Manipal University, Jaipur
2015: Rahul Meena, Pratik Yadav (IISER Bhopal)
Reviewer for Journals:
Journal of Biochemical and Molecular Toxicology, European Journal of Medicinal Chemistry, Archiv Der Pharm

Journal of Biochemical and Molecular Toxicology, European Journal of Medicinal Chemistry, Archiv Der Pharmazie, Journal of Chemistry (HINDAWI), DARU Journal of Pharmaceutical Sciences, Organic Chemistry Frontiers, Organic and Biomolecular Chemistry, Process Biochemistry, The Journal of Organic Chemistry, Medicinal Research Reviews, ACS Omega, RSC Advances, ChemMedChem, Bioorganic and Medicinal Chemistry Letters, BMC Chemistry, New Journal of Chemistry, Journal of Molecular Structure, Synthetic Communications, Plasma Processes and Polymers, BMC Infectious Diseases, Chemical Papers, Indian Journal of Pharmaceutical Sciences, Bioorganic Chemistry, Research on Chemical Intermediates (RINT), Ultrasonic Sonochemistry, Medicinal Chemistry Research, Acta Chimica Slovenica (Slovenian Chemical Society), Saudi Pharmaceutical Journal, Arkivoc (Arkat USA), Journal of Agricultural and Food Chemistry (ACS), Current Organic Synthesis, Scientific Reports, Current Trends in Medicinal Chemistry, Studies in Natural Product Chemistry (SNPC)- Book Chapter, Reviews in Cardiovascular Medicine (RCM), Biomedicine & Pharmacotherapy

#### Membership of Professional Scientific Societies / National and International Advisory Board

- Editorial Advisory Board Member: Current Indian Science (2021-Present); Current Organocatalysis (2020-Present); Arkivoc (2011-Present); National Advisory Board Member, 22<sup>nd</sup> ISCBC-2016 (6<sup>th</sup>-8<sup>th</sup> Feb, 2016); International Journal of Pharmaceutical Sciences and Research (2012-Present);
- Life Memberships: Chemical Research Society of India, IISc Bangalore (2013 Present); Indian Association of Nuclear Chemists and Allied Scientists, BARC, Mumbai (2014 Present); Indian Society of Chemist and Biologist, CSIR-CDRI Lucknow (2013 Present); Indian Science Congress Association, Kolkata (2014 Present)
- Fellows of Professional Societies: Fellow of Indian Chemical Society (F.I.C.S.), Indian Chemical Society, Kolkata (2014 Present)
- Membership: American Chemical Society, USA (2008 Present)

#### **Professional Training Received**

- "Principle and Hand-on expertise on ICP-MS Technologies", (24-26 Sep, 2013), Centre of Excellence, Agilent Technologies, Bangalore, India.
- "GRANT WRITING SEMINAR", Centre for study of gene structure and function, (9-10 Nov, 2009), The City University of New York, U.S.A.

#### List of Equipment's made available at MNIT Jaipur/ NIPER-Raebareli

Equipment available Generic Name of Equipment		uipment	
PI & his group	<ul> <li>(a) 02 Low temperature Reaction bath</li> <li>(b) 02 Two Rotavapor with vacuum pump and chiller</li> <li>(c) 14 Magnetic Stirrers with hot plate</li> <li>(d) 04 Weighing balance</li> <li>(e) 10 UV lamp with box</li> <li>(f) 10 Computer with printer</li> <li>(g) 01 Vertex Mixer</li> <li>(h) 05 Oil Free Diaphragm Vacuum Pump</li> <li>(i) 03 Laboratory Oven</li> </ul>	<ul> <li>(j) 01 Melting point apparatus</li> <li>(k) 03 Refrigerator</li> <li>(l) 03 Recirculating Chiller</li> <li>(m) 05 Working Fumehoods</li> <li>(n) 01 Centrifuge</li> <li>(o) 01 Overhead Stirrer</li> <li>(p) 01 Vertex Mixture</li> <li>(q) 02 Ultrasonicator Bath</li> <li>(r) 01 Microwave</li> <li>(s) 01 Overhead Magnetic Stirrer</li> </ul>	
PI's Department/ Institute	FT- IR Spectrometer, UV/Vis Spectrometer, LC-MS, UPLC-MS, GC, HRMS, FT NMR Spectrophotometer, TEM Spectrophotometer, CD spectrometer, Powder X-Ray Diffractometer, CEM Microwave		

#### Administrative Experiences: Responsibilities and Professional Activities at NIPER-Raebareli

#### Dean, NIPER-Raebareli

Designation	From	То	Nature of Work
Dean, NIPER-Raebareli (NIPER- R/REG/2022/ dated 21-02-2022)	21-02-2022	Till date	Academic and Administrative Responsibilities of the Institute
Secretary, Academic Planning and Development Committee (APDC0 NIPER- R/22-23/Office of Registrar dated 21-04-2023	21-04-2023	Till date	As per para 3.3.1 of NIPER Statutes
Chairperson, Board of Studies and Research (BSR) NIPER-RBL/2022- 23/Committee/23/653 dated 17-01-2023	17-01-2023	Till date	Work assigned to the committee as per NIPER ordinance
Chairperson, Constitution of Executive Board of Alumni Association (NIPER- R/Admin/2023-24/AAC/01 dated 18-05-2023)	18-05-2023	Till date	Draft the term of reference of the association and act accordingly.
Member, Results Committee (NIPER- RBL/Cte/15/2021-22 dated 03-11-2021)	21-02-2022	Till date	Result preparation and declaration

Member, Timetable and Academic Committee (NIPER-RBL/Cte/14/2021-22 dated 03-11- 2021)	21-02-2022	Till date	Technical and Financial Evaluation of the Tender for lab furniture of different departments
Senate Member, NIPER-R (NIPER-RBL/2023/committee/39/1080 dated 27-09-2023)	21-02-2022 27-09-2023	26-09-2023 (1 <sup>st</sup> tenure) Present (2 <sup>nd</sup> tenure)	Academic duties and responsibilities
Ex-officio member, Finance Committee (NIPER-RBL/2023-24/Committee/40/182 dated 27-09-2023)	27-09-2023	Till date	All financial matters of NIPER-R
Chairperson, Institute Safety Committee (Chemical/Biological/Electrical Hazard Committee) [NIPER-RBL/2022- 23/Committee/18/548 dated 11-08-2022	11-08-2022	Present	To draft a safety policy at the institute /dept. level and look upon all matters related to safety (Chemical/Biological/ Electrical Hazard)
Ex-Officio member, Proctorial Board, NIPER- Raebareli	05-08-2024	Present	To foster a conducive environment for academic excellence and holistic development of students
Director's Representative, Assessment of Acute Toxicity of Agrochemicals (NanoBioDAP) of NIPER-Raebareli	16-03-2023	31-03-2024	Finalization of accounts and disbursement of intellectual fees for consultancy work

### Administrative Assignments at NIPER-Raebareli (Institute level)

Assignments	Designation	From	То	Nature of Work
BOG-Member	Member-Professor of the Institute	02-11-2022	Till date	Academic and Administrative Responsibilities of the Institute
NIPER-Raebareli/2022- 23/Admin/ Internal Order dated 23-09-2022	Patron, International Symposium on Toxicology and Applied Pharmacology	29-09-2022	30-09-2022	Support and Cooperation to all the working committees and work as organizing team
NIPER-R/2021-22/Committee/ dated 04-03-2022	Coordinator, Common Research Program	04-03-2022	Till date	To coordinate the Common Research Plan (CRP) going on NIPER-R campus.
Committee Member	Tender Evaluation Committee	19-08-2021	Till date	Technical and Financial Evaluation of the Tender for lab furniture of different departments
NIPER-RBL/Cte/04/2021-22 dated 05-08-2021	Member, Committee for Technical and Financial Evaluation	05-08-2021	Till date	Technical and Financial Evaluation of the Tender dated 05-07-2021
NIPER-RBL/Cte/2021/10 dated 11-06-2021	Member, Physical Verification Committee	11-06-2021	30-09-2021	Physical verification of Assests of Computer Centre and Library
NIPER-RBL/2022-23/Swachhata packwada/2022 dated 31-08-2022 NIPER-RBL/2023-24/Swachhata Pakhwada/2023 dated 23-08-2023	Committee member	01-09-2022 01-09-2023 01-09-2024	15-09-2022 15-09-2023 15-09-2024	Execution of Swachhata Mass Pledge and various cleanliness activities
NIPER-Raebareli/2022- 23/Special Campaign Swacchata) 2.0/479 dated 03-10-2022	Committee member	02-10-2022	31-10-2022	Clearance of pending references from MPs; state government; cabinet-note; PMO references; parliamentary assurances; Record management, Identification of Cleanliness campaign sites
NIPER-RBL/CTE/Administration /2022-23 dated 06-12-2022	Chairman, Committee for formulating the policy for establishing Canteen in NIPER-Raebareli	06-12-2022	31-03-2023	TO formulate a policy for establishment of canteen
NIPER-R/Recruit/01/2021-22/695 dated 22-02-2023	Centre-In-Charge, Exam Centre management for 25-26 Feb, 2023	25-02-2023	26-02-2023	Recruitment exam for various non- teaching posts 25-26 Feb, 2023
NIPER-RBL/2022- 23/Committee/31/837 dated 10- 05-2023	Chairperson, Evaluation of Specification of equipments for Central	10-05-2023	Till date	To evaluate specification of equipments which are proposed to be sent for CPC evaluation.

	Purchase Committee of all NIPERs			
NIPER-R/Approval/23-24/32 dated 08-09-2023	Institute Academic Committee, Depat. of medicinal Chemistry	08-09-2023	31-03-2024	Document verification of new admitted students through NIPER JEE 2023
NIPER-Raebareli/2022-23/Hindi Pakhwada/2022 dated 13-09- 2022; NIPER-Raebareli/2022- 23/Hindi Pakhwada/2022 dated 13-09-2022	Committee member, Hindi Pakhwada	14-09-2022 14-09-2023	28-09-2022 28-09-2023	Celebration of Hindi Pakhwada in NIPER-Raebareli campus
NIPER-R/2023- 24/Recruitments/Faculty positions/III dated 04-10-2023	Scrutiny committee member, Professor (Pharmaceutical Analysis) and Assistant Professor (AI/ML & Data Analysis)	04-10-2023	31-03-2024	With ref. to adv. No. NIPR- R/2023-24/Recruitment/Faculty positions/III date 07 July, 2023.
NIPER-RBL/2023- 24/Committee/43/ dated 03-01- 2024	Chairperson, Assessing the modalities for procurement of laboratory consumables considering the guidelines issued by GOI, for NIPER_R	03-01-2024	Till date	To assess the modalities for procurement of laboratory consumables as per GFR 2017.
NIPER-RBL./2023- 24/Committee/44/1203 dated 02/05-01-2024	Member, Preparation and Finalization of Reservation Roster of NIPER-R	02/05-01- 2024	Till date	To prepare and finalize reservation roster
NIPER-RBL/2023- 24/Committee/46/1222 dated 30- 01-2024	Chairperson, Reviewing and recommending the Guests/students for their stay in the Guest House and Hostel room	30-01-2024	Till date	To establish an operational Guest house in the institute and to review and recommend the guest/students for their stay in the guest house and hostel rooms od NIPER-Raebareli
NIPER-RB 2023-<br 24/Admin.9Estt.)/Probation/1259 dated 23/26-02-2024	Member, Probation Assessment committee for non-teaching employees due for their probation confirmation	23/26-02- 2024	31-03-2024	To assess the probation confirmation of non-teaching employees
NIER-R/2023- 24/Recruitment/Non Faculty/IV & V/1277 dated 05-03-2024	Centre-In-Charge, Exam Centre Management Committee, 9-10 March, 2024	09-03-2024	10-03-2024	Management and fair conduct of recruitment exam scheduled on 9- 10 Mar, 2024 for various non- teaching positions adv. No. NIPER-R/2023-24/Recruitment/ Non Faculty/IV & V dated 0-07- 2023 & 04-10-2023
NIPER-R/A7E/OO/24-25/06 dated 13-08-2024	Member[DegreepreparationandRegistrationofStudentsCommittee,Convocation9th	13-08-2024	01-10-2024	Preparation and printing of Degree/mark sheets, Fabrication of medals; Registration of Students, Correspondence with students
NIPER-RBL/2022- 23/Committee/27/7649A) dated 29-03-2023	Chairperson, Asset Verification Committee- for laboratory Consumable (Chemicals)	29-03-2023	Till date	Physical verification of assets for laboratory consumables in each lab of NIPER_R as per GFR 2017, Rule 213(I).
NIPER-R/Recruit/01/2021-22	Member, Selection Committee for Library and Information officer, Estate and Security officer, Medical officer, Public Relation officer, Guest house and Hostel Supervisor, Junior Hindi Translator, Receptionist and Telephone operator	03-03-2023	31-03-2023	Selection of suitable candidates for various post adv. No. NIPER- R/Recruit/01/2021-22 dated 20-12- 2021

NIPER-RBL/2023- 24/Committee/34/972 dated 07- 08-2023	Member, Investment of funds lying in the internal revenue account of NIPER-Raebareli	07-08-2023	31-03-2024	To invest funds lying in the internal revenue account of NIPER-R
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### Administrative Assignments at Department level

Organization	Designation	From	То	Nature of Work
NIPER-Raebareli (NIPER- RBL/01/2020-21/10 dated 04-08- 2021)	Head of Department (HoD)	04-08-2021	Present	GeneralDutiesandResponsibilitiesrelatedtotheDepartmentofMedicinalChemistry including academic andAdministrative works
NIPERRaeBareli(NIPER/RBL/Cte/02/2021-22dated 28 Sep, 2021)	Departmental Academic Advisory Committee (Medicinal Chemistry)	28-09-2021	Present	Duties as per NIPER Ordinance.

### Administrative Assignments at Other/Previous Organizations

Organization Designation		n	From	То	Nature of Work	
Madan M University Gorakhpur	Mohan Malviya of Technology,	Expert, Board of (BOS), Dept. Chemistry		08-11-2023	Present	Duties and Responsibilities related to academic works

### Administrative Experiences: Responsibilities and Professional Activities done at MNIT Jaipur

### Administrative Assignments at MNIT Jaipur (Institute level)

Order No.	Designation	From	То	No. of Semester	Nature of Work
MNIT/Chief Warden/ 2013- 14/07 dated 16-08-2013	Warden		09-06-2014	2	Responsibility and Maintenance of Hostel No. 3, MNIT Campus, MNIT Jaipur.
MNIT/CW/2014-5/24R dated 09-06-2014	Warden		10-06-2015	2	Responsibilities and maintenance of Hostel No.1, MNIT Campus, MNIT Jaipur
MNIT/CW/2015-16/42 dated 31-07-2015	Warden	01-08-2015	07-08-2016	2	Responsibilities and Maintenance of Hostel No.1, MNIT Campus, MNIT Jaipur.
MNIT/DIR/2013/460 dated 23-07-2013	Co-coordinators (SC/ST/OBC/Persons with Disability (PWD) Development and Liaison Officer	23-07-2013	22-07-2014	2	SC/ST/OBC/Persons with Disability Development and Liaison Officer
Dean FW/MNITJ/2013/ dated 3rd Sep, 2013 Adjunct Faculty Position, Faculty-in-charge (Spectroscopy lab MRC, MNIT Jaip		22-08-2013	21-08-2015	4	Faculty-In-Charge (Spectroscopy lab)- Supervision and Maintenance of Instruments of Spectroscopy Lab
MNIT Jaipur DPGC Convener		20-07-2017	03-06-2021	8	As per MNIT Rules and Regulations of PG Schemes under the section no. 1.5.2: Responsibilities of DPGC
Dean Academics, MNIT Jaipur	External Member for DPGC, DSC and Guest Faculty Committee " in Department of Mechanical Engineering.	16-06-2017	15-06-2019	4	External Member for DPGC, DSC and Guest Faculty Committee " in Dept. of Mechanical Engineering, MNIT Jaipur

Organizing Member	MNIT convocation 7 <sup>th</sup> (04 Nov, 2012) 8 <sup>th</sup> (10 July, 2014) 9 <sup>th</sup> (19 <sup>th</sup> Jan, 2015), 10 <sup>th</sup> (11 <sup>th</sup> Dec, 2015), 11 <sup>th</sup> (21 <sup>st</sup> Jan, 2017), 12 <sup>th</sup> (6 <sup>th</sup> Jan, 2018) 13 <sup>th</sup> (29 <sup>th</sup> Dec, 2018)			11	Printed Committee, Convocation brochure & Invitation cards
MNIT Faculty Recruitment (01/MNIT/Estt/2013) (No. MNIT/Dir./F- 65/2013/)	Scrutiny/Shortlisting committee member	30-01-2013	30-05-2013	4 months	Shortlisting/Scrutiny of candidates based on selection criteria.
MNIT Library Automation and up-gradation	Task Force Member	16-09-2013	15-09-2014	1 year	Proposed a detailed plan and devised scheme to upgrade automation of central Library
CSAB-2013, 2014, 2015, 2016	Reporting officer	June-July period of academic year			Admission through JEE- Exam
Annual Technical and Cultural Event, Blitzschlag, 2014	Finance, Registration & Prizes Committee member	April 4-6, 201	4		MNIT Institute Cultural Event
MNIT Faculty Recruitment (01/MNIT/Estt/2014) (No. MNIT/Dir./F- 65/2014/	Scrutiny/Shortlisting committee member	24-04-2014	24-09- 2014	5 months	Shortlisting/Scrutiny of candidates based on selection criteria.
West Zone Vice Chancellor Meet 2014-15 Association of Indian Universities	Protocol Committee	30/11/2014 to	03/12/2014		To plan and execute the protocol for the WZ VC meet 2014-15
Felicitation Ceremony- Silver Jubilee and Alumni Day celebration	Committee member	27-12-2014			Organizing the felicitation ceremony as committee member.
MNIT TA Chemistry Recruitment (F. No. AES-22/1/13/2014- Vol-III/94	Evaluator for Screening test	25-04-2015			Recruitment of non-teaching post
PHED JEN Exam, 2014	Observer	15-02-2015			Observe and inspect the exam
Hon'ble HRM and Co-NIT meet, 2015	Committee member	Oct, 10-12, 2015			Duties for coordinating visit

# Administrative Assignments at Department level

Organization	Designation	From	То	No. of Semester	Nature of Work
	Programme Advisor	07-07-2015	06-07-2017	4	Serving as M.Sc (Chemistry) Course advisor to M.Sc Students 2015-2017 related to academic affairs.
	Member, Department Purchase Committee	07-07-2015	06-07-2016	2	Serving as member in the DPC for procurement of equipment, chemicals, glassware, software etc.
Department	Committee member for Construction of New Research lab including OMC lab	07-07-2015	06-07-2016	2	To monitor the progress of construction work of new research OMC lab.
of Chemistry, MNIT Jaipur	Member, DPGC	04-07-2013	03-06-2021	16	Roles of members given in DPGC rules and regulation of MNIT Institute
	Member, DUGC	04-07-2013	03-06-2021	16	As per given in DUGC rules and regulations of MNIT Institute.
	Faculty-In-Charge, Placement	18-07-2016	03-06-2021	16	To look upon and guide students for placement to various companies.
	Member, Department Selection Committee (DSC)	01-06-2016	03-06-2021	16	To carry out written exam and interviews for Ph.D admissions, Guest Faculty etc.