

Bio-Data

Dr. Mangilal Chouhan

(M. Pharm., Ph.D, Medicinal Chemistry)

Assistant Professor

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Research Impact

(Citation Indices by Google Scholar)

Total Citation – **493**; h-index – **15**; i10 index – **15**

➤ **Research Area:**

Medicinal Chemistry: Design, synthesis and evaluation of novel bio-active scaffolds against communicable, non-communicable and neglected disease

Process Development: Greener process for bioactive molecules

Asymmetric Synthesis: Synthesis of bioactive natural product, amino acid derivatives and chiral building blocks.

➤ **Education:**

2008 – 2013

National Institute of Pharmaceutical Education and Research (**NIPER**); Mohali, Punjab, India

Doctor of Philosophy (**Ph. D**)

Subject: Medicinal Chemistry

Title: “Novel Strategies for Efficient Synthesis of Nitrogen/Oxygen Containing Heterocycles and Application for the Synthesis of a Naturally Occurring Oxyneolignan”

2004 – 2007

Institute of Chemical Technology (ICT); Mumbai University, Mumbai, Maharashtra, India
Master of Pharmacy (**M. Pharm.**); 1st Class

Subject: Medicinal Chemistry

Title: Studies in improvement of antimicrobial “Hits”

1999 –2002

Department of Pharmaceutical Sciences, Mohanlal Sukhadia University (MLSU); Udaipur, Rajasthan, India

Bachelor of Pharmacy (**B. Pharm.**); 1st Class

Subject: Pharmaceutical Sciences

➤ **Professional Experiences:**

2014 – Present

Designation: Assistant Professor

Department of Pharmaceutical Sciences, Mohanlal Sukhadia University (MLSU), Udaipur, Rajasthan, India

2013-2014

Designation: Research Associate & Scientist-I
Piramal Discovery Solution, Ahmedabad, India

2006 – 2008

Designation: Research Associate & Junior Research Scientist
Syngenta Bioscience Pvt. Ltd; Corlim-Illhas, Goa, India

➤ **Research Project:**

- UGC (BSR) Start-Up (Year: 2016-18; Grant 6.0 lacs ; Status: Completed)
- DST-SERB, New Delhi: (Year: 2018-21; Grant 35.51 lacs ; Status: Completed)

➤ **Research Expertise in:**

- Synthesis of individual small molecular libraries of heterocyclic scaffold such as azaindoles, isoquinolones, imidazole, functionalization of pyrroles, total synthesis of natural pyrroloindoloquinazoline alkaloid etc.
- Asymmetric synthesis of lignins, oxyneolignans and other natural products.
- Hands on preparation, handling and synthesis of organo-metallic compounds
- Reactions of milligram to multi-gram scale and compound isolation by normal and flash chromatography techniques.
- Analysis and structure elucidation of compounds through various spectroscopic techniques such as ^1H & ^{13}C -NMR techniques, Mass spectroscopy (LCMS/GCMS/MALDI-TOF-TOF), UV, IR, Chiral HPLC and GC etc.

➤ **Research Outcomes:**

- **Research Publications:** International: 17; National: 02

Link: <https://scholar.google.co.in/citations?user=RTxA1twAAAAJ&hl=en>

1. S. Puri, T. T. Yadav, M. Chouhan, K. Kumar, Synthetic and Clinical Perspectives of EVOTAZ: An Overview. *Min, Rev. Med. Chem.*, 2023, <https://doi.org/10.2174/138955752366230707151553>.
2. S. Goyal, A. pal, M. Chouhan, M. Gangar, S. Sarak, V. A. Nair A highly efficient stereoselective synthesis of β -lactams, *Tet. Lett.* **2017**, 58, 346. (**IF: 2.26**)
3. M. Gangar, M. Chouhan, S. Goyal, M. Harikrishnan, R. Chandran, A. Ittuveetil, V. A. Nair, Asymmetric glycolate alkylation approach towards total synthesis of 8-O-6' and 8-O-4'-neolignans, *Tet. Lett.* **2016**, 57, 5931. (**IF: 2.26**)
4. K. Kumar, D. Konar, S. Goyal, M. Gangar, M. Chouhan, R.K. Rawal, V.A. Nair, Water Promoted Regiospecific Azidolysis and Copper Catalysed Azide-Alkyne Cycloaddition: One-Pot Synthesis of 3-Hydroxy-1-alkyl-3-[$(4$ -aryl/alkyl-1H-1, 2, 3-triazol-1-yl) methyl] indolin-2-ones, *J. Org. Chem.* **2016**, 81, 9757. (**IF: 4.75**)
5. K. Kumar, D. Konar, S. Goyal, M. Gangar, M. Chouhan, R.K. Rawal, V.A. Nair, AlCl_3 /Cyclohexane Mediated Electrophilic Activation of Isothiocyanates: An Efficient Synthesis of Thioamides, *ChemistrySelect*, **2016**, 1, 3228. (**IF: 1.72**)
6. S. Goyal, B. Patel, R. Sharma, M. Chouhan, K. Kumar, M. Gangar, V.A. Nair, An efficient strategy for the synthesis of syn 1, 3-diols via iterative acetate aldol reactions and synthesis of atorvastatin lactone, *Tet. Lett.* **2015**, 56, 5409. (**IF: 2.26**)
7. M. Chouhan, K. R. Senwar, K. Kumar, R. Sharma, V. A. Nair, Catalytic C–H Activation of Arylacetylenes: A Fast Assembly of 3-(Arylethynyl)-3-hydroxyindolin-2-ones Using CuI/DBU, *Synthesis* **2014**, 46, 195. (**IF: 2.87**)

8. **M. Chouhan**, A. Pal, R. Sharma, V. A. Nair, Quinine as an organocatalytic dual activator for the diastereoselective synthesis of spiro-epoxyoxindoles, *Tetrahedron Lett.* **2013**, *54*, 7119. (IF: 2.26)
9. G. L. Khatik, R. Sharma, V. Kumar, **M. Chouhan**, V. A. Nair, Stereoselective synthesis of (S)-dapoxetine: A chiral auxiliary mediated approach, *Tetrahedron Lett.* **2013**, *54*, 5991. (IF: 2.26)
10. D. Gahtory, **M. Chouhan**, R. Sharma and V.A. Nair, Total Synthesis of a Pyrroloindoloquinazoline Alkaloid, *Org. Lett.* **2013**, *15*, 3942. (IF: 6.56)
11. **M. Chouhan**, K. Kumar, R. Sharma, V. Grover and V. A. Nair, $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}/\text{NaBH}_4$ in methanol: A mild and efficient strategy for chemoselective deallylation/debenzylolation of aryl ethers, *Tetrahedron Lett.* **2013**, *54*, 4540. (IF: 2.26)
12. R. Sharma, K. Kumar, **M. Chouhan**, V. Grover and V. A. Nair, Lithium hydroxide mediated synthesis of 3,4-disubstituted pyrroles, *RSC Adv.* **2013**, *3*, 14521. (IF: 3.29)
13. **M. Chouhan**, R. Sharma and V. A. Nair, Stereoregulations of Pyrimidinone Based Chiral Auxiliary in Aldol and Alkylation Reactions: A Convenient Route to Oxyneolignans, *Org. Lett.* **2012**, *14*, 5672. (IF: 6.56)
14. **M. Chouhan**, K. R. Senwar; R. Sharma, V. Grover and V. A. Nair, Regiospecific epoxide opening: A facile approach for the synthesis of 3-hydroxy-3-aminomethylindolin-2-one derivatives, *Green Chem.* **2011**, *13*, 2553. (IF: 9.40)
15. **M. Chouhan**, R. Sharma and V. A. Nair, Cp_2ZrCl_2 Induced Reformatsky and Barbier Reactions on Isatins: An Efficient Synthesis of 3-Substituted-3-hydroxyindolin-2-ones, *Appl. Organometal. Chem.* **2011**, *25*, 470. (IF: 3.26)
16. R. Sharma, **M. Chouhan**, D. Sood and V.A. Nair, An efficient one-pot synthesis of 2-benzylpyrroles and 3-benzylindoles, *Appl. Organometal. Chem.* **2011**, *25*, 305. (IF: 3.26)
17. R. Sharma, **M. Chouhan** and V.A. Nair, A novel one-pot synthesis of 2-benzoylpyrroles from benzaldehydes, *Tetrahedron Lett.* **2010**, *51*, 2039. (IF: 2.26)

- **Conferences Attended/Presentation:** International: 04; National: 07

- **Patents:** International: 01 ; National: 03

- **Books:** 03 & **Book Chapters:** 01

➤ **Awards & Honors:**

- GATE qualified in Pharmaceutical Sciences
- Recipient of Scholarship from AICTE during Master program
- Recipient of JRF and SRF from NIPER Mohali during Doctoral research Program