



**Centre:**School of Natural Resources

**Department:** Pharmacy

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**Name** :Dr.Achal Mishra  
**Qualifications** : M.Pharm (Pharm.Chemistry). Ph.D  
**Area of Interest/Specialization** : Pharmaceutical Chemistry  
**Experience** : 15.6 Years  
**Awards and Honors**

- **2023:** Received Best Publication Award In Shri Shankaracharya Technical Campus Faculty of Pharmaceutical Sciences, Bhilai (C.G.)

**Research Projects Completed**

- **MRP, funded by** Chhattisgarh Council of Science & Technology (CGCOST) topic"QSAR analysis of some derivatives of quinoxaline as antimalarial agent".

**List of Publications**

- Jaiswal P, Mishra A, Kesharwani D, Paul SD. Overview on ocular drug delivery through colloidal nano-suspension. Research Journal of Pharmacy and Technology. 2023 Mar 1;16(3):1533-9.
- Sahu M, Choubey R, Sahu P, Mishra A. A comparative molecular docking study of Syzygiumcumini to understand the binding pattern with four different proteins Used for anti-diabetic activity. Eur. Chem. Bull. 2023, 12(Special Issue 1), 4981-4993 .
- Rani M, Chauhan R, Sharma S, Singh A, Mishra A, Badwik H, Dwivedi J. Synthesis, Cannabinoid Receptor Targeted Molecular Docking of Some New Pyrazole Derivatives as Hypolipidemic and Anti-Obesity Agents. Indian Journal of Pharmaceutical Sciences. 2023 Feb 23;85(1):217-26.
- Patel VK, Shirbhate E, Tiwari P, Kore R, Veerasamy R, Mishra A, Rajak H. Multi-targeted HDAC inhibitors as Anticancer Agents: Current Status and Future

Prospective. *Current Medicinal Chemistry*. 30(24),2762 - 2795 2022 Sep 22. I.F.-4.74, 0929-8673 (print); 1875-533X (web)

- Shirbhate E, Patel VK, Tiwari P, Kore R, Veerasamy R, Mishra A, Rajak H. Combination therapy for the treatment of alzheimer's disease: recent progress and future prospects. *Curr Top Med Chem*. 2022 Sep 7. doi: 10.2174/1568026622666220907114443. Epub ahead of print. PMID: 36082857. I.F.-3.57, 1568-0266 (print); 1873-4294 (web)
- Jain S, Chauhan N, Bhardwaj A, Yadaw G, Singh MK, Mishra A. QSAR Modeling of  $\alpha$ -Ketooxazole Motif Analogues as Potent Anti-Alzheimer Agents. *YMER*. 2022 May 5(21):624-640. ISSN No. 0044-0477
- Mishra A, Jha V, Rajak H. Molecular structural investigations of quinoxaline derivatives through 3D-QSAR, molecular docking, ADME prediction and pharmacophore modeling studies for the search of novel antimalarial agent. *Journal of the Indian Chemical Society*. 2022 Jan 5:100343.
- Agrawal M, Dwivedi J, Kishore D, Jain S, Mishra A, Jain S, Sharma S. An Expedient Approach to the Synthesis of Novel Quinolone and Diazacine Condensed Analogues of Azepino [3, 2-b] Carbazole-2-one of Medicinal Interest. *Indian Journal of Pharmaceutical Education and Research*. 2022 Jan 1;56(1):S89-97.
- Mishra A, Vaishnav Y, Jha AK, Verma S. 3D QSAR analysis on quinoxaline derivatives as anti-malarial using K-nearest neighbour molecular field analysis. *Indian Journal of Chemistry-Section B (IJC-B)*. 2021 Jun 29;60(5):727-31.
- Mishra A, Waghela R. A Comparative Study of Approved Drugs for SARS-CoV-2 by Molecular Docking. *Journal of Molecular Docking*. 2021 Jun 30;1(1):25-31.
- Dewangan D, Vaishnav Y, Mishra A, Jha AK, Verma S, Badwaik H. Synthesis, molecular docking, and biological evaluation of Schiff base hybrids of 1, 2, 4-triazole-pyridine as dihydrofolate reductase inhibitors. *Current Research in Pharmacology and Drug Discovery*. 2021 Jan 1;2:100024.
- Arya R, Paliwal S, Gupta SP, Sharma S, Madan K, Mishra A, Verma K, Chauhan N. In-silico Studies and Biological Activity of Potential BACE-1 Inhibitors. *Combinatorial Chemistry & High Throughput Screening*. 2021 Jun 1;24(5):729-36.
- Vaishnav Y, Dewangan D, Verma S, Mishra A, Thakur AS, Kashyap P, Verma SK. PPAR gamma targeted molecular docking and synthesis of some new amide and urea

substituted 1, 3, 4-thiadiazole derivative as antidiabetic compound. *Journal of Heterocyclic Chemistry*. 2020 May;57(5):2213-24.

- Dewangan D, Nakhate K, Mishra A, Thakur AS, Rajak H, Dwivedi J, Sharma S, Paliwal S. Design, Synthesis, and Characterization of Quinoxaline Derivatives as a Potent Antimicrobial Agent. *Journal of Heterocyclic Chemistry*. 2019 Feb;56(2):566-78.
- Arya R, Gupta SP, Paliwal S, Kesar S, Mishra A, Prabhakar YS. QSAR and molecular modeling studies on a series of pyrrolidine analogs acting as BACE-1 Inhibitors. *Letters in Drug Design & Discovery*. 2019 Jul 1;16(7):746-60.
- Dhall E, Jain S, Mishra A, Dwivedi J, Sharma S. Synthesis and Evaluation of Some Phenyl Substituted Azetidine Containing 1, 2, 4-triazole Derivatives as Antibacterial Agents. *Journal of Heterocyclic Chemistry*. 2018 Dec;55(12):2859-69.
- Dewangan D, Nakhate KT, Verma VS, Nagori K, Badwaik H, Nair N, Tripathi DK, Mishra A. Synthesis and Molecular Docking Study of Novel Hybrids of 1, 3, 4-Oxadiazoles and Quinoxaline as a Potential Analgesic and Anti-Inflammatory Agents. *Journal of Heterocyclic Chemistry*. 2018 Dec;55(12):2901-10.
- Misra A, Sharma S, Sharma D, Dubey S, Mishra A, Kishore D, Dwivedi J. Synthesis and molecular docking of pyrimidine incorporated novel analogue of 1, 5-benzodiazepine as antibacterial agent. *Journal of Chemical Sciences*. 2018 Mar;130(3):1-2.
- Vaishnav Y, Thakur A, Kaur CD, Verma S, Mishra A, Jain SK, Ghode P. QSAR Analysis of some N, N-diphenyl urea derivatives as CCR5 Receptor Antagonist. *Research Journal of Pharmacy and Technology*. 2018;11(9):3802-10.
- Paliwal S, Sharma S, Dwivedi J, Mishra A. Synthesis of Novel Substituted Phenyl-3-Hydrazinyl-Quinoxaline-2-Amine Derivatives: Evaluation of Antimicrobial Activity and Its Molecular Docking Studies. *Journal of Heterocyclic Chemistry*. 2017 Nov;54(6):3689-95.
- Mishra A, Paliwal S, Sharma S, Dwivedi J. Synthesis and Molecular Docking Studies of Some New Quinoxaline Derivatives as Potential Antimicrobial Agents. *INDIAN JOURNAL OF HETEROCYCLIC CHEMISTRY*. 2017 Jul 1;27(3):249-54.
- Sanmati KJ, Achal M. 3D QSAR Analysis on Isatin Derivatives as Carboxyl Esterase Inhibitors Using K-Nearest Neighbor Molecular Field Analysis. *J TheorComput Sci*. 2015 May;2(2):1-2.

- Achal Mishra, BhavnaYadav, ShekharVerma, YashwantSwarnakar, A.K. Jha, PermanandVerma, DevendraSahu. A Short Review on Concept and Types of Combinatorial Chemistry, Asian Journal of Research in Chemistry, 7, 2, 2014, 243-248. 0974-4150(Online), 0974-4169(Print).
- Achal Mishra, Takesh Kumar Nagwanshi, RemanlalSahu, Lokendra Kumar Verma, RuchiYadav. A review on quinoxaline - pharmacophore and derivatives with diverse biological properties, world journal of pharmacy and pharmaceutical sciences, 2,6, 2013, 6486-6506. ISSN- 2278-4357.
- Naveen K. Mahobia, Sanmati K. Jain, Roshan Patel, Sudarshan K. Singh , Achal Mishra, RavindraDhardubey. 3D QSAR Analysis of Some Piperidiny Amide and Ureas as CCR5 Antagonist, Journal of Pharmacy Research 5, 9, 2012, 4706-4709. ISSN: 0974-6943,
- Achal Mishra, Harish Rajak, Green Chemistry: an insight into recent advances and their application in academics and research, India journal of technical education (CSIR), 35, 2012, 22-28. ISSN- 0971-3034.
- DhansayDewangan, Achal Mishra, Alok Pandey, ShekharVerma, RavindraDharDubey. Synthesis of Schiff bases of 2-amino-5-aryl-1, 3, 4-thiadiazole And Its Analgesic, Anti-Inflammatory, Anti-Bacterial and Anti-Tubercular Activity”, International Journal of ChemTech Research, 3, 1, 2011, 178-184. ISSN (online) 2455-9555, (print) 0974-4290.
- S. S. Pancholi, RajkumarAgrawal, Achal Mishra. QSAR on Heteroaryl-Phenyl-Substituted Pyrazole Derivatives as Selective and Potent Canine COX-2 Inhibitors, Current Pharmaceutical Science, 02, 2011, 68-76. ISSN-2250-2688.
- Sanmati K. Jain, Ravindra D. Dubey, S. Mallick, S. Nag, A. Yadav, Achal Mishra Naveen K. Mahobia. 2D and 3D-QSAR Analysis of some 1, 3-disubstituted Urea Derivativesfor Anti proliferative Activity. Der PharmaChemica, 2, 6, 2010, 125-133. ISSN 0975-413x.
- Naveen K. Mahobia, Roshan D. Patel, Naheed W. Sheikh, Sudarshan K. Singh , Achal Mishra, RavindraDhardubey. Validation Method Used In Quantitative Structure Activity Relationship, Der PharmaChemica, 2, 5, 2010, 260-271. ISSN 0975-413x.
- ParmanandVerma, Alpna Ram, Arvind Kumar Jha, Achal Mishra, Alok Thakur. Phosphatidylcholine: a revolution in drug delivery technology, international journal of

pharmaceutical sciences and research, 2010, 1, 2. 2010 ISSN (Online): 0975-8232, ISSN (Print): 2320-5148.

#### **Recent Books/Book chapters/Monographs etc:**

- Isatine derivative as human carboxylestarase inhibitors: an approach towards 3D-QSAR, pharmacophore and molecular docking, B.P. International Publication. Current Aspects in Pharmaceutical Research and Development Vol. 2, 18 September 2021, Page1-21, <https://doi.org/10.9734/bpi/caprd/v2/12980D>
- A Molecular Docking Study bring Golden Era in Pharmaceutical Drug Design and Chemical Engineering Process, Bharti Publication, India.
- Pharmaceutical Importance of Copolymers: A Special Note on Eudragit, AkiNik Publications, New Delhi, Page No.-31-46, ISBN: 978-93-5570-305-7, DOI: <https://doi.org/10.22271/ed.book.1751>.
- A Text book of computer aided drug design, Dr. P.K Publication, ISBN NO.- 97893-94919-327. Advanced Medicinal Chemistry, IIP iterative International Publishers, 2023, ISBN No.-978-93-5747-861-8.

#### **Research Supervision**

- 06- M. Pharm.- completed
- 03- PhD- Pursuing

#### **Administrative Responsibilities**

#### **Additional Information**

- Life Member of The Association of Pharmaceutical teachers of India (APTI)
- Life Member Indian Pharmaceutical Association (IPA)
- Life Member Indian Indian Pharmaceutical Graduate Association IPGA Life member