Curriculum vitae

Dhairiya Agarwal

Date of Birth: **29-09-1999**; Nationality: **Indian**

Address: 06, Rajeev puram dasna, Ghaziabad, near devi mandir road, Uttar Pradesh, India, pin code- 201015	
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Education:

S. No.	Examination	Year of passing	Name of institute	Board/ University	Marks obtained
1.	M.S.(Pharm.) Medicinal Chemistry	2023	NIPER – Raebareli	NIPER-R	8 CGPA
2.	B.Pharm.	2021	Sunder deep college of Pharmacy, Ghaziabad	Dr. APJ Abdul Kalam Technical University, Lucknow	8.6 CGPA
3.	Intermediate (12^{th})	2016	Shri guru ram rai public school, Ghaziabad	CBSE, New Delhi	65 %
4.	High School (10^{th})	2014	Shri guru ram rai public school, Ghaziabad	CBSE, New Delhi	6.6 CGPA

Achievements:

S. No.	Achievement	University/Research Organization /Funding Sponsor	Year
1.	Qualified NIPER-JEE	Ministry of Chemicals and Fertilizers, Government of India	2021
2.	Qualified GPAT	All India Council of Technical Education, New Delhi	2021

Research interests:

Medicinal Chemistry, Drug Discovery, and Development: Mechanism/target/structure-based drug discovery, lead generation, and lead optimization; design, synthesis, and SAR study of new bioactive molecules/moieties, particularly in the field of novel anti-Alzheimer's agents.

List of Publications:

1. **Agarwal, D.**; Kumar, S.; Ambatwar, R.; Bhanwala, N.; Chandrakar, L..; Khatik, G. L.; In Silico Optimization and Lead Identification, Targeting Acetylcholinesterase Enzyme against Alzheimer's Disease. *Biophys. Chem.* **2023**. (In communication)
2. **Agarwal, D.**; Malik, J.; Bhanwala, N.; Ambatwar, R.; Kumar S.; Chandrakar, L.; Khatik, G. L.; Networkodynamic approach to perceive the key phytoconstituents of E. officinalis (Amla) as natural BACE1 inhibitors to manage Alzheimer's disease. *ACS Chem. Neurosci.* **2023**. (In communication)
3. Ambatwar, R.; Kumar, S.; **Agarwal, D.**; Chandrakar, L.; Khatik, G. L.; Cobalt Perchlorate Hexahydrate Catalyzed One-Pot Synthesis of Dihydropyrimidin-ones/-thiones through Sonochemistry and its Mechanistic Study using Density Functional Theory Calculations. *J. Iran. Chem. Soc.* **2023**. (Under review)

List of Conferences:

1. One-Day International Symposium on "Drug Discovery & Development Interface" organized by National Institute of Pharmaceutical Education and Research (NIPER), Raebareli on 01st Feb. 2023
2. National Intellectual Property Awareness Mission (NIPAM) organized by National Institute of Pharmaceutical Education and Research (NIPER), Raebareli on 03rd Feb. 2023
3. One-Day Symposium on "The Industry Perspectives on Translational Challenges in Drug Discovery & Development" organized by National Institute of Pharmaceutical Education and Research (NIPER), Raebareli on 11th Mar. 2022

List of Workshops:

1. **SERB** Sponsored Workshop on "**Hands-On Training on Computer Aided Drug Design and Discovery Tools**" from 11th to 17th July 2022 at Shree S. K. Patel College of Pharmaceutical Education and Research, Ganpat University, Mehsana, Gujarat.

Research Experience:

M.S.(Pharm.) Thesis Title: "Design, Synthesis and *In Silico* Studies of Coumarin Derivatives as Multi-targeted Anti-Alzheimer's Agents".

Research advisor: Dr. Gopal Lal Khatik, Assistant Professor, Department of Medicinal Chemistry, National Institute of Pharmaceutical Educational and Research (NIPER), Raebareli (Uttar Pradesh), India

Hand-on Experience:

1. Broad knowledge of purification methods and expertise in analytical characterization, such as **NMR, IR, HRMS** spectroscopy
2. Well-versed in various chromatographic techniques viz. column chromatography, chromatogram, preparative chromatography, and thin layer chromatography.
3. ***In silico* studies** (Ligand-based, Structure-based, as well as a Fragment-based computational approach), Network-pharmacology, and simulation.
4. ***In- vitro*** study (Ellman assay, and alpha-amylase assay), and

5. ***In- vivo*** study, Animal handling (dosing, feeding, and histopathology).

Computational skill:

1. A literature search by online databases such as SciFinder, Google Scholar, PubMed, PubChem, NCBI, Zinc database, etc.
2. Working knowledge of chemistry-related software and presentation media such as MS-office, Chem Office Ultra (19.0) including Chem draw ultra (19.0), Chem 3D Ultra (19.0), Bio-render, Swiss ADME, AutoDock Vina, Biovia Discovery Studio (Version 2021), Mestre Nova, Mendeley Desktop (1.19.5), and Schrodinger etc.