

Current Position: Professor, DMIHER, Wardha (India)

Work History

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| 2023-10 - onwards | Professor DMCP, DMIHER, Wardha |
| 2022-09 – 2023-09 | Professor <i>Dr. Rajendra Gode College of Pharmacy, Amravati</i> |
| 2020-01 – 2022-09 | Post-Doctoral Fellow <i>Institute of Drug Metabolism & Pharmaceutical Analysis, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou, China.</i> (University 2023 World QS Ranking- 42, Asia Rank - 3) <ul style="list-style-type: none">Wrote and published high-impact articles concerning findings and highlighted possible applications for findings.Wrote research proposals for national funding.Collaborated with Pharmaceutical professionals to advance research and gain a deeper understanding of topics.Conducted research guided by the faculty supervisor under institutional and federal guidelines. |
| 2014-11 - 2019-11 | Research Scientist <i>Wockhardt Research Centre (R&D), Aurangabad, India.</i> <ul style="list-style-type: none">Performed research into study topics to increase knowledge and to provide valuable contributions.Performed drug analysis, and generated data as per regulatory requirements.Developed case report forms and conducted stability studies for NCEs as per ICH guidelines.Developed new analytical methods and performed validations by HPLC, GC, and GC-MS, etc.Followed GLP guidelines to compensate the data integrity with US-FDA norms.Review SOPs and performed various analytical instruments calibration as specified. |

Contact

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Analytical Instruments

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|------------------------------|-----------------------------------------------------------------------------------------|
| NMR-400 | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| HPLC | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| GC (HS/ALS) | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| FTIR | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| LC-MS | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| GC-MS | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| UV-Visible Spectrophotometer | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| ELISA | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| MFI | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| DLS | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| EPR | <div><div></div><div></div><div></div><div></div><div></div></div> <div>Excellent</div> |
| KF-Titrator | <div><div></div><div></div><div></div><div></div><div></div></div> |

2013-05 -
2014-10

Research Associate

Rose labs Ltd (R&D), Ahmedabad, India.

- Set up equipment, organized inventory, and maintained facilities.
- Performed synthesis and quality control-based analysis for drug products.
- Helped team meets regulatory requirements by coordinating documentation and filings.
- Conducted lab safety training as per norms.

2011-09 -
2013-04

Assistant Professor

R.C. /H.R. Patel Pharmacy Institute, Shirpur, India.

- Took attendance, graded assignments, and maintained student records to assist teachers with administrative tasks and maintain smooth daily operations.
- Used a variety of learning modalities and support materials to facilitate the learning process and accentuate presentations.
- Performed research to serve as the basis for academic writing for publications.
- Mentored students, communicated internship and employment opportunities.

Qualifications

2012-12 -
2018-02

Ph.D.: Pharmaceutical Sciences & Technology

S.R.T.M. University, - Nanded, India.

2009-06 -
2011-06

M. Pharmacy: Pharmaceutical Chemistry

Government College of Pharmacy - Aurangabad, India.
(Distinction)

2006-06 -
2009-06

B. Pharmacy: Pharmacy

Y. B. Chavan College of Pharmacy – Aurangabad, India. (First Class)

2004-06 -
2006-06

D. Pharmacy: Pharmacy

Government College of Pharmacy - Amravati, India.
(Distinction)

Accomplishments

Excellent

Coulometer



Excellent

M. P. Apparatus



Excellent

Polarimeter



Excellent

PH Meter



Excellent

Software's

MS Office



Excellent

Graph-Pad



Excellent

Marvin Sketch



Excellent

ChemDraw



Excellent

ChemSketch



Excellent

Scientific data retrieval from Internet portals including Scifinder, St. Jones Lib, PubMed, Science direct.



Excellent

Personal Dossier

- Date of birth: 10th Dec 1985
- Blood group: A ⁺
- Gender : Male
- Father's name: Late Mr. Gajanan S. Ingle
- Nationality : Indian
- Passport no : R9768884
- Marital status : Married

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|-------------------|--------------------------------------------------|
| 2009 GATE | Qualified (93.52%) |
| 2009 NIPER | Qualified (AIR Rank 457) |
| 2012 PET | Rank -1 st (SRTMU, Nanded University) |

Research Contributions

Research experience

- Executed industry-based biopharmaceutical projects on **various monoclonal antibodies, fused proteins, nucleic acids, etc.** in collaboration with **Institute of Innovative Medicine, Hangzhou Biopharma Town, China.**
- Performed stability studies on various NCE's as per **ICH guidelines.**
- Screening of quinoxaline derivatives for ***in-vivo* anticancer** activity on human 60-cell lines from the **National Cancer Institute; USA.**
- During my industrial carrier; I had worked on enoxaparin (LMWHs), along with billion-dollar **anti-infective** NCE projects i.e., Nafithromycin, Zidebactam, Levonadifloxacin, ESBL, WCK-771, WCK-5222, WCK-4282, WCK-2349, Tazobactam, etc., which received **QIDP** approval from **US-FDA**. In 2020 **DCGI, India** has approved Emrok (Levonadifloxacin).
- Sound experience at the **New Drug Discovery (R&D) Department of Wockhardt Research Centre** in drug analysis and testing.
- During my doctorate, I have synthesized quinoxaline derivatives and collaboratively worked with **Tropical Disease Research Centre; MGIMS; Medical College; Sewagram; Wardha** for the **Infectious Filariasis** screening.

Funding applied

1. Joint Research Agreement

Partner A, Zhejiang University (China): Prof. Huidi Jiang, Prof. Wei-Jie Fang

Partner B, DRGCOP (India): Prof. Rahul G. Ingle

Title: Establishment of regulatory guidance on handling of mRNA vaccines during clinical use.

Funding sources: Bill & Melinda Gates Foundation (USA),

National Science Foundation of China (China)

2. Core Research Grant, SERB-DST, India

Principal Investigator: Prof. Rahul G. Ingle

Title: Investigation on the impacts of manufacturing, shipping stresses on stability, and pharmacological profiles of freeze-dried monoclonal antibodies (biopharmaceuticals)

Funding source: DST (India – 35 lacks)

3. SERB-DST, India

Principal Investigator: Prof. Rahul G. Ingle

Title: Innovative Synthesis Approaches for Antibiotic Alternatives: A Focus on

Addressing Antimicrobial Resistance (AMR)

Funding source: DST (India – 24.5 lacks)

4. International Travel Grant (For Singapore Conference) DST, India

As a Speaker - International Conference on Pharmaceutics and Drug Delivery Systems, Singapore

Title: The Stability and Delivery Challenges of Commercial Nucleic Acid Therapeutics" Publications

Research Publications

(* Contributed as a first author)

1. *Histidine as a versatile excipient in the protein-based biopharmaceutical formulations (**International Journal of Pharmaceutics**, 2024, Accepted) **Impact factor: 5.3**
2. *The Precision Medicine: Advancement and Transformation in Cancer Treatment (**Bioengineering**, 2024, Accepted) **Impact factor: 3.8**
3. *Revolutionizing Eye Care: Exploring the Potential of Microneedle Drug Delivery (**Pharmaceutics**, 2024, Accepted) **Impact factor: 4.9**
4. *Unlocking the Potential: Advancements and Applications of Gene Therapy in Severe Disorders (**Bioengineering**, 2024, Accepted) **Impact factor: 3.8**
5. *mRNA-based vaccines – global approach, challenges, and could be a promising way out for future pandemics (**Pharmaceutical Development and Technology**) **Impact factor: 3.4**
6. The Effects of Excipients on Freeze-dried Monoclonal Antibody Formulation Degradation and Sub-Visible Particle Formation during Shaking (**Pharmaceutical Research**) **Impact factor: 3.7**
7. QSAR modelling to predict structural features of certain sulfonamide as Urokinase-type Plasminogen Activator inhibitors (**Chem Phy Impact**) **Impact factor: 2.2**
8. Application of In Silico Drug Discovery Techniques to Discover a Novel Hit for Target-Specific Inhibition of SARS-CoV-2 Mpro's Revealed Allosteric binding with MAO-B receptor: A theoretical study to Find a cure for post Covid Neurological disorder (**PLOS One**) **Impact factor: 3.75**
9. *An Overview of the Stability and Delivery Challenges of Commercial Nucleic Acid Therapeutics (**Pharmaceutics**, 2023, 15, 1158) **Impact factor: 6.57**
10. *Current development of bioanalytical sample preparation techniques in pharmaceuticals (**Journal of Pharmaceutical Analysis**, 2022, 12, 517-529) **Impact factor: 14.03**
11. Freeze-dried monoclonal antibody formulations are unexpectedly more prone to degradation than liquid formulations under shaking stress (**Journal of Pharmaceutical Sciences**, 2022, 1-5) **Impact factor: 3.78**
12. *Pre-filled dual-chamber devices (DCDs) – Promising high-quality and

- convenient drug delivery system (**International Journal of Pharmaceutics**, 2021, 597, 120314) **Impact factor: 6.51**
13. Formation of protein sub-visible particles during powder grinding of a monoclonal antibody (**European Journal of Pharmaceutics and Biopharmaceutics**, 2020, 149, 1-11) **Impact factor: 5.59**
 14. Enantiomeric separation and thermodynamic investigation of (R)-5-[1-(4-Nitrobenzylsulfonyloxy)-ethyl]-5-(pyridine-2-yl)-[1,3,4]-thiadiazole, a Key Intermediate of Nafithromycin (**Analytical Chemistry Letters**, 2019,9, 625-633) **Impact factor: 1.0**
 15. *Apoptotic impact on *Brugia malayi* by sulphonamido quinoxaline: search for a novel therapeutic rational (**Parasitology Research** - 2018, 117(5):1559-1572) **Impact factor: 2.57**
 16. *Sulfonamido quinoxaline: Search for anticancer agents (**European Journal of Medicinal Chemistry** - 2013, 65:168-86) **Impact factor: 7.09**
 17. *Pre-filled syringe - a ready-to-use drug delivery system - a review (**Expert Opinion on Drug Delivery** - 2014, 11(9):1391-9) **Impact factor: 5.55**
 18. *World of low molecular weight heparins (LMWHs): Enoxaparin as a promising moiety—A review (**Carbohydrate Polymers** - 2014, 106:148-53) **Impact factor: 10.72**
 19. *Search for antimicrobial agents: Quinoxaline as a promising moiety (**Indian Drugs** - 2017, 54(7), 5-9)
 20. *Review on methods of synthesis and pharmacological activities of quinoline, pyrazole, schiff's base, and beta-lactam (**Asian Journal of Research Chemistry** –2012, 5(6), 808-815)
 21. *Synthetic development of antimicrobial novel quinoxaline derivatives (**International Journal of Pharmaceutical Chemistry** - 2014, 4(01), 34-38)
 22. *Application of computational strategies for optimization of asparaginyl t-rna synthetase docking study of quinoxalines (**WJPR** - 2017, 6, 853-864)
 23. *Neoadjuvant chemotherapy - A new therapeutic challenge in the treatment of ovarian cancer- A review (**International Journal of Pharmaceutical Chemistry** – 2015, 5, 27-32)
 24. **In-vitro* cytotoxicity assay of quinoxalines (**Journal of Current Pharma Research**- 2015, 6, 1751-1762)
 25. *Sulfonamido quinoxalines - Search for anti-inflammatory agents (**IJPRA**, 2012, 1, 46-51)
 26. *Review on literature study of benzothiazole (**IJPRA**, 2012, 1, 11-15)
 27. *Review on a literature study of quinoxaline (**Pharmacophore**, 2012, 3, 109-116)
 28. *Introduction, therapies, and recent experimental approaches in cancer (**IJDRT**, 2012, 2(4), 360-370)
 29. *Multiscale modeling of tumors: non-small cell lung cancer (NSCLC) as a review (**IJDRT**, 2012, 2(4), 306-312)

30. *Heterocyclic chemistry of benzimidazoles and potential activities of derivatives (**IJDRT**, 2011, 1, 26-32)
31. Fast disintegrating tablet as a new drug delivery system: a review (**Pharmacophore**, 2011, 2(1), 1-8)
32. Heterocyclic chemistry of quinoxaline and potential activities of quinoxaline derivatives – a review (**Pharmacophore**, 2010, 1(2), 65-76)

Under Review

01. *Cut-cake Freeze-dried Monoclonal Antibody Formulations Cause More Degradation During Mechanical Shaking - A Novel Findings (**Current Pharmaceutical Biotechnology – Revision submitted**)
02. *Hydrogel-based Drug Delivery System: A Global Scenario, Current Development, and Future Prospective (**Current Drug Delivery- Revision submitted**)
03. *Ensuring Patient Safety: Navigating the Complexities of Drug Recalls and Withdrawals (**Therapeutic Innovation & Regulatory Science**)
04. Design, synthesis, and pharmacological screening of Pinocembrin analogues as nootropic caspase-3 inhibitors (**Journal of Taibah University for Science**)
05. QSAR Modeling for Prediction of Bioactivity and Identification of Structural traits for Therapeutic Agents Targeting NF- κ B as Anticancer Lead (**Chemometrics and Intelligent Laboratory Systems**)

Patents

- Published Indian patent: Novel quinoxaline derivative against Filariasis (Patent no: 201621033464).
- US patent: Benzoyl clarithromycin process development (in the process)

Books

- Medicinal Chemistry-II (2023, Gyan Publication, India)
- Pharmaceutical Chemistry (2022, Himalaya Publication, India)
- Fundamentals of Stereochemistry (2017, Unique Publication, India)

Resource Person

- Served as an industry resource person to various reputed pharmaceutical institutes in India.
- Conducted several scientific writing and career guidance one day workshops with Write and Scribe Solutions team.

Certifications

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| 2010-01 | Recent Advances in Drug Discovery |
| 2016-06 | Global Challenges in Drug Discovery, Development & Regulatory Affairs |

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| 2020-01 | Biopharmaceutical Stability Conference |
| 2023-01 | IPC |
| 2011-01 | Young Researcher's Conference |
| 2012-03 | Emerging Trends in P'ceutical Research |
| 2012-06 | Basics in Spectroscopy & Chromatography |
| 2013-06 | APP II nd Annual National Convention |
| 2013-11 | Recent Trends in P'ceutical Research: Emphasis on Viscosity & Texture Characterization, |
| 2013-09 | National Workshop on Applications of Spectroscopy in Structural Elucidation |
| 2016-06 | Emerging Trends in Drug Discovery & Drug Development Ethano Medica |

Honors and Awards

- MITCON Training Programme
- Intellectual Property Rights (I.P.R.) Course of WIPO-Geneva
- CCCO with MS Office (MSBTE)
- M. Pharm Ranker
- Certificate of Merit
- Recipient of JRF

References

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*All the information given above is true and correct to the best of my knowledge.

Date: 15.07.2024
Place: Wardha

Rahul G. Ingle