

Area of research: **Metabolic Disorders, In Silico Pharmacology, Network Pharmacology, Immunopharmacology, Reproductive Health.**

Research/review publication: **04**

Work experience: **02 years**

Conference/seminar/webinar/workshop attended: **30 +**

Patent: **01 (Granted)**

### Key Achievements:

- **Granted Indian Patent**
- **Awardee of SCHOTT FIOLAX Germany Scholarship**
- **Gold Medalist at ANVESHAN: Student Research Convention 2022 (Western Zone)**
- **Gold Medalist at ANVESHAN: Student Research Convention 2022 (All India Level)**
- **Awardee of Prof. S.K. Mukherjee Gold Medal**
- **Won 25+ Scientific Poster & Scientific Oral Paper Presentations**
- **Won 5+ Industry-based Case Study Competitions**
- **Won 5+ Scientific Model making Competitions**
- **University Level Elocutionist**

### ❖ Achievements & Awards:

- **Granted Indian Patent no: 522398 with the title “Combinatorial and chrono-pharmacology guided multi-target integrated holistic combination treatment for nonalcoholic fatty liver disease and nonalcoholic steatohepatitis.” dated 27/06/2023.**
- **Inventors: Mr. Sanket Shirodkar, Dr. Anuradha Majumdar**
- **Successfully Qualified GPAT (Graduate Pharmacy Aptitude Test) in 2020 (First Attempt)**
- **The SCHOTT FIOLAX Germany Scholarship for the year 2022 has been awarded to recognize exceptional accomplishments in both academic and co-curricular excellence and extracurricular achievements.**
- **Achieved 1st Prize in the ANVESHAN: Student Research Convention at the Zonal Level, an event organized by the Association of Indian Universities (AIU).**
- **Secured the 1st Prize in the ANVESHAN: Student Research Convention 2022, specifically in the Health and Allied Sciences category, at the National Level. This convention was also organized by the Association of Indian Universities (AIU).**
- **Awardee of Prof. S.K. Mukherjee Gold Medal for Attaining the prestigious 1st Prize in the ANVESHAN: Student Research Convention 2022 at the Overall Category, hosted by the Association of Indian Universities (AIU).**
- **1<sup>st</sup> Prize in the National Level Poster Competition in 2023, held at St. John Institute of Pharmacy and Research in Palghar.**
- **1<sup>st</sup> Prize in the National Level Poster Competition in 2023, held at NCRD's Sterling Institutes in Nerul, Navi Mumbai.**
- **The prestigious 1<sup>st</sup> Prize was secured at the National Level Poster Competition in 2023, hosted at the esteemed Mumbai Educational Trust-MET's Institute of Pharmacy, situated within the Bhujbal Knowledge City in Nashik.**

- **1<sup>st</sup> Prize in Scientific Poster Competition organized by the Indian Pharmaceutical Association (IPA), Maharashtra state branch on 11<sup>th</sup> March 2023, held at Bombay College of Pharmacy, Mumbai.**
- **1<sup>st</sup> Prize in Scientific Oral Paper Presentation organized by the Indian Pharmaceutical Association (IPA), Maharashtra state branch on 12<sup>th</sup> March 2023, held at Bombay College of Pharmacy, Mumbai.**
- **Acclaimed 1<sup>st</sup> Prize in the National Level Poster Competition 2023, hosted at the National Facility for Biopharmaceuticals (NFB) in Matunga, Mumbai.**
- **Earned recognition with a 2<sup>nd</sup> Prize in the National Level Poster Competition in 2023, which took place at the VIVA Institute of Pharmacy.**
- **Secured 3<sup>rd</sup> Prize in the Poster Competition on Lifestyle Disorders held at the VIVA Institute of Pharmacy.**
- **2<sup>nd</sup> Prize in the Scientific Model Making Competition in 2023, conducted at the National Facility for Biopharmaceuticals (NFB) in Matunga, Mumbai.**
- **Secured the 2<sup>nd</sup> Prize in the Poster Competition on Lifestyle Disorders held at IES Management and Research Center.**
- **Recognized with the 3<sup>rd</sup> prize for a Scientific poster presentation in 2022 at the National Facility for Biopharmaceuticals (NFB).**
- **Consistently excelled in the VICHAR MANTHAN- Intercollegiate Industry-based Case Study Competition associated with Mumbai University at the VIVA Institute of Management and Research by securing the 1<sup>st</sup> Prize in 2018, 2<sup>nd</sup> Prize in 2019 and 2<sup>nd</sup> Prize in 2023.**
- **1<sup>st</sup> Prize in the Debate Competition 2023, held at the K.G. Joshi College of Arts & N.G. Bedekar College of Commerce.**
- **Displayed excellent Oratory skills by emerging as the winner in both University-level (Mumbai University) and District-level (Palghar district) elocution competitions.**
- **Secured 1<sup>st</sup> Prize in a Storytelling Competition held at the VIVA Institute of Pharmacy.**
- **Secured 1<sup>st</sup> Prize in the Pharma Debate Competition, held at the VIVA Institute of Pharmacy.**
- **Published book chapters and scientific articles in reputable journals like Bombay Technologists and Panache Magazine of IPA-MSB.**
- **Won 1<sup>st</sup> Prize in the Innovative Pharmaceutical Packaging competition hosted at the VIVA Institute of Pharmacy.**
- **Demonstrated excellence in marketing skills within the pharmaceutical field, securing the 1<sup>st</sup> Prize in Pharma Marketing.**
- **Creatively marketed a pharmaceutical product, earning the 2<sup>nd</sup> Prize in the Pharma Product Advertisement Competition, held at the VIVA Institute of Pharmacy.**
- **2<sup>nd</sup> Prize won in the Street Play Competition on the Awareness of Diseases at the VIVA Institute of Pharmacy.**
- **Showed artistic prowess by winning the 1<sup>st</sup> Prize in Rangoli Making from Dry Waste, adhering to a theme, at the VIVA Institute of Pharmacy.**
- **Demonstrated literary skills by securing the 1<sup>st</sup> Prize in the Wordsworth Competition at the VIVA Institute of Pharmacy.**
- **Won 2<sup>nd</sup> Prize in Physics behind Bridge Making, effectively implementing principles of physics, at the VIVA Institute of Pharmacy.**
- **Demonstrated artistic flair by earning the 3<sup>rd</sup> Prize in the Live Poster Making Competition at the VIVA Institute of Pharmacy.**
- **Honored for promoting road safety as a Road Safety Messenger by Bramha Kumari Divya Prabha, the National Coordinator for Transport and Travel Wing.**
- **Acknowledged and appreciated by the Parmartha Niketan Trust (Belgaum) for consistently achieving top rankings in academics.**
- **Secured 2<sup>nd</sup> position in Creative flyer-making competition at Bombay college of Pharmacy.**
- **Secured 3<sup>rd</sup> position in Spin the yarn competition in which Elocution is judged at Bombay college of Pharmacy.**
- **Secured 2<sup>nd</sup> position in Graffitix competition in which the capability of making creative digital scientific**

illustrations is judged at Bombay college of Pharmacy.

- Secured 1<sup>st</sup> position in a Working scientific model-making competition in which the capability of making realistic model with new innovations is judged at Bombay college of Pharmacy.
- Secured 1<sup>st</sup> position in Pictionary competition in which the knowledge of English vocabulary is judged at Bombay college of Pharmacy.

#### ❖ Research Skills:

- **Animal Handling:** Proficient in laboratory rat and mouse handling, including Specific knowledge of various rat and mouse strains, Health monitoring and behavioral assessment, Proficiency in aseptic techniques, Stress reduction during handling, Commitment to ethical considerations and regulations, Accurate data collection and record-keeping, Training, and supervision of others in rat and mouse handling.
- I am skilled in oral, intraperitoneal (IP), intravenous (IV), subcutaneous (SC), intramuscular (IM), intranasal, and topical drug administration in rats, tailoring the method to specific research needs. Also, I excel in tail vein, cardiac puncture, saphenous vein, and Retro-Orbital Puncture (ROP) bleeding prioritizing the welfare of the animals and applying aseptic techniques.
- **Expertise in Rodent Organ Isolation and Live Surgery:** I possess advanced proficiency in isolating organs from rats and mice, as well as expertise in performing live surgeries, with a particular focus on ovariectomy procedures. I am also skilled in administering precise anesthesia to ensure the well-being of research animals. My experience and precision in these areas contribute significantly to the success of scientific research projects.
- **Laboratory Techniques:** Skilled in a range of laboratory techniques, including RT-PCR (Reverse Transcription Polymerase Chain Reaction) and several biochemical assays.
- **Molecular Biology:** Proficiency in molecular biology techniques, such as DNA extraction, PCR (Polymerase Chain Reaction), and DNA gel electrophoresis.
- **Mammalian cell culture techniques:** Proficient in mammalian cell culture techniques, including cell line maintenance, propagation, and manipulation. Skilled in aseptic techniques, media preparation, and ensuring optimal growth conditions for various cell types.
- **Data Analysis:** Competent in data analysis, with the ability to process and interpret experimental results using statistical tools and software. I excel in data analysis, specializing in pharmacological animal data. I leverage various statistical methods, including descriptive and inferential statistics, regression, survival analysis, and correlation analysis. I'm well-versed in using GraphPad Prism software for creating informative graphs.
- **Experimental Design:** Capable of designing and executing experiments, from formulating research questions to planning protocols and troubleshooting issues.
- **Expertise in pharmacology,** encompassing drug mechanisms, pharmacokinetics, and pharmacodynamics. Proficient in conducting thorough literature reviews to stay current with the latest pharmacological research advancements.
- **Strong written and verbal communication,** adaptable to new techniques, adept at independent research, exceptional problem-solving abilities, and meticulous attention to detail.

#### ❖ IT and Database Proficiency

- Microsoft Office (Word, Excel, PowerPoint)
- GraphPad Prism, Image J, ChEMBL, Swiss Drug Design, SuperPred, Similarity Ensemble Approach – SEA,

❖ **Workshop/ Conferences attended:**

<ul style="list-style-type: none"> <li>• <b>Attended National Symposium on “Integrating Traditional Knowledge in Evidence based Medicine” organized by ACTREC – Tata Memorial Centre in Association with Central Council for research in Ayurvedic Sciences, Ministry of AYUSH, Govt. of India.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Actively participated in a 7-day SERB-sponsored hands-on training workshop on Metabolomics for the development of biotherapeutics at the Institute of Chemical Technology (ICT).</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Volunteered in a 7-day DST-STUTI-sponsored hands-on training program focused on the application of sophisticated instrumental techniques for evaluating drugs and pharmaceuticals during the discovery and development phases. This program was hosted at the Bombay College of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended a national seminar on Molecular biology and genomics: A bullseye for future pharmacy on 25<sup>th</sup> of February 2023 held at VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended One-Day National Level Symposium in Collaboration with Indian Pharmaceutical Association (IPA-MSB) &amp; Association of Pharmaceutical Teachers of India (APTI-MS) on "DATA ANALYTICS AND AI-ML: OPPORTUNITIES IN HEALTHCARE" on Saturday, 4 February, 2023</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended seminar on recent technological advances in standardization of Phytopharmaceutical and ayurvedic medicines held at VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended seminar on IPR and patents held at VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended seminar on Marketing strategies in the Pharma industry held at IES Management and Research Center-Bandra.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended Seminar on “Recent Advances in Capsule Technology” by VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended Seminar on “Integrated Therapy for Lifestyle Disorders” organized by VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended seminar on Super food for Super youth by Rujuta Diwekar (Celebrity Nutritionist) held at VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended National Symposium on “Start-ups in Herbal Drug Industry” held at Aldel Education Trust’s, St. John Institute of Pharmacy and Research.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended National Symposium on Biosimilars held at VIVA Institute of Pharmacy.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Attended Workshop on Advances in LC-MS organized by National Facility for Biopharmaceuticals – G.N Khalsa College – Department of Science and technology, Govt. of India.</b></li> </ul>

❖ **Courses completed:**

<ul style="list-style-type: none"> <li>• <b>Completed Office automation course with GRADE-A</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Completed One Week RUSA Sponsored Workshop on Emerging Trends in Research Methodology (online mode) organized by Sophia College (Autonomous), Mumbai, India, and REST Society for Research International (RSRI) Krishnagiri, Tamil Nadu, India.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Completed 30 Hours of Hands-on workshop on Recombinant DNA Technology organized by the National Facility for Biopharmaceuticals, Mumbai on 30<sup>th</sup> December 2022.</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Completed 4-week MOOC on Anti-Microbial Resistance -Ramnarain Ruia Autonomous College</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Qualified Executive Course Analytics with Excel by NAVIGO ANALYTIX (3-month course) on 14<sup>th</sup> October 2021 - Bombay College of Pharmacy</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Managing Emotions in Times of Uncertainty &amp; Stress- Yale University-Coursera</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Introduction to Psychology- Yale University-Coursera</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Diabetes - a Global Challenge- University of Copenhagen-Coursera</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>Child Nutrition and Cooking- Stanford University-Coursera</b></li> </ul>

- **Non-Alcoholic Fatty Liver Disease – The Essentials- University of Copenhagen-Coursera**
- **Stanford Introduction to Food and Health- Stanford University-Coursera**
- **Vital Signs: Understanding What the Body Is Telling Us- University of Pennsylvania-Coursera**
- **E-Commerce Online Course-Thakur Educational Trust**
- **Basics of Clinical Research: Clinical Operations, Data Management & Medical Writing- QREC Clinical Research Institute, India**
- **Completed First Aid Training & CPR Course held at Abhinav College-Mumbai, Maharashtra.**

#### ❖ Membership

- **Life membership received from the Indian Pharmaceutical Association.**
- **Registered Pharmacist - Pharmacy council of India.**

#### ❖ Other Activities

- **Invited as Speaker at the American Chemical Society - Bombay College of Pharmacy. Topic-"Bonds beyond Biochemistry: Exploring NASH Therapeutics in Rodent Model."**
- **Invited as Speaker at the DBM – India for Personality and Skill Development Workshop.**
- **Invited as Judge for IPA-MSB-SF RxTechFest-2024 Oral Paper Presentation competition.**
- **Invited as Judge for IPA-MSB-SF RxTechFest-2024 competition- Convince Me (Oratory Skill-based competition).**
- **Class in charge during my M.Pharmacy at Bombay College of Pharmacy.**
- **Head of Student Research Project Committee at VIVA Institute of Pharmacy.**
- **Committee Member of the College's Annual magazine.**
- **Winner of more than 10 National Level Essay Writing and Elocution competitions.**
- **Participated in various Indian Pharmaceutical Association (IPA) organized events.**

#### ❖ Volunteering

- **National Service Scheme (NSS) for 2 Years (2018-2020)**
- **Volunteered in numerous Blood donation camps at various places.**
- **Volunteered in a Diabetes detection and arthritis awareness camp in association with C&C Pep at Meghwadi Police Station (Jogeshwari East)**
- **Worked as an educator with NGOs to provide secondary school education to underprivileged children residing in urban slums.**