

## Publications 2018-2025

Faculty authored reference books:

1. Dr. Minakshi N. Nehete published a book "A Practical Book of Instrumental Methods of Analysis Lab" for Bachelor of Pharmacy; Semester VII as per the PCI syllabus along with co-authors Dr. Vedika Dadlani and Dr. Vineeta Khanvilkar on 1<sup>st</sup> July, 2024.
2. Kalyani Sheth, Pharmaceutical Quality Assurance, B. Pharm Sem III, as per PCI syllabus, by Brillion Publishing, ISBN:978-93-93980-50-2, 2023
3. Kalyani M. Sheth, Melroy Mervyn D'sa, Communication Skills B.Pharm- Sem-I as per the PCI syllabus, Brillion Publishing, ISBN: 978-81-19238-73-6

Faculty chapters in edited volumes/ translated books:

4. Pratima Tatke, Rohini Waghmare, Chapter 16 - Antidiabetic plants with insulin mimetic activity, Editor(s): M. Naeem, Tariq Aftab, Antidiabetic Medicinal Plants, Academic Press, (2024) Pages 491-513, ISBN 9780323957199, <https://doi.org/10.1016/B978-0-323-95719-9.00009-4>.
5. Niserga D. Sawant, Shweta Kulkarni, Vasanti Suvarna and Namita D. Desai, 'Neurological disease management with nanoparticles', In Dr. Prashant Pingale, Dr. Sanjula Baboota, Prof. Javed Ali (Eds) *Nanocarrier Drug Delivery Systems (Therapeutic and Diagnostic Medicine)* Walter de Gruyter GmbH, Berlin, Germany, pp. 85-123, 2024
6. Aparna D. Palshetkar, Prachi C. Mehendale and Namita D. Desai, Topical Drug Delivery for Psoriasis Using Nanocarriers' In Dr. Prashant Pingale, Dr. Sanjula Baboota, Prof. Javed Ali (Eds), *Nanocarrier Drug Delivery Systems (Therapeutic and Diagnostic Medicine)*, Walter de Gruyter GmbH, Berlin, Germany, pp. 307-353, 2024
7. Manasi Wagdarikar, Namita Desai, Sandhya Shenoy (2024) Polymers in Medical Devices and Pharmaceutical Packaging' in Vandana Patravale, John I. Disouza, Aliasgar Shahiwala (Eds), *Polymers for Pharmaceutical and Biomedical Applications Fundamentals, Selection and Preparation*, Elsevier Inc, USA 2024 (<https://doi.org/10.1016/B978-0-323-95496-9.00009-0>) (pp. 333-382)
8. Rohit Yennawar, Neel Parekh, Kshitij Mayekar, Pratigya Tripathi, Shallu Saini, Tanmayee Joshi, Rohini Waghmare, Hardeep Singh Tuli, and Ginpreet Kaur, Microbial Influence on Nutrient Absorption and Energy Metabolism, Gut Microbiota Characterization and Food Conversions to Therapeutic Implications, Jenny Stanford Publishing Pte. Ltd., ISBN 978-981-5129-57-1 (Hardcover) ISBN 978-1-003-59684-4 (eBook), Copyright © 2025, page 61-72
9. Kshitij Mayekar, Tanmayee Joshi, Rohini Waghmare, and Ginpreet Kaur, Microbial Modulation of Gut–Brain Axis: Implications for Mental Health, Gut Microbiota Characterization and Food Conversions to Therapeutic Implications, Jenny Stanford Publishing Pte. Ltd., ISBN 978-981-5129-57-1 (Hardcover) ISBN 978-1-003-59684-4 (eBook), Copyright © 2025. page 161-190
10. Desai Namita D., Sawant Niserga D. and Tatke Pratima A., Biopotential using Herbs: Novel Approach for Poor Bioavailable Drugs, In Drug Delivery Technology, Herbal Bioenhancers in Pharmaceuticals, Editor: Pingale, Prashant, Walter de Gruyter GmbH, Berlin, Germany, 2022, pp. 1 – 26, <https://doi.org/10.1515/9783110746808>
11. Wanegaonkar, A., Jagdale, D., & Bhitre, M. J., Design, Discovery and Optimization of Novel Molecular Hybrids N-1 Substituted Indolyl Chalcone of N-1 Substituted 2-Acetyl Benzimidazole as Potent Tubulin Inhibitor Agent. *Challenges and Advances in Pharmaceutical Research Vol. 6*, 70–87. 2022, <https://doi.org/10.9734/bpi/capr/v6/6218F>
12. Wanegaonkar, A. M. ., & Bhitre, M. J., Concise Synthesis and Potential Anti-angiogenic activity of N-1 Substituted Indolylchalcone Hybrids on Chorioallantoic Membrane

- (CAM) Assay: A Recent Study. *Technological Innovation in Pharmaceutical Research* Vol. 5, 95–110., 2021, <https://doi.org/10.9734/bpi/tipr/v5/9633D>
13. Wanegaonkar, A. M., & Bhitre, M. J., Studies on Synthesis of N-1 Fused Heterocyclic Derivatives Using Potassium Carbonate and PEG- 400 as Green Catalyst. *Technological Innovation in Pharmaceutical Research* Vol. 10, 88–95. 2021, <https://doi.org/10.9734/bpi/tipr/v10/11966D>
  14. Pratima Tatke, Isolation and Analytical Methods of Catechin: A Critical Review *Advances in Chemistry Research*, Volume 56, In press Publisher: Nova Science Publishers, Inc. Hauppauge, NY, USA, 2019
  15. Tambe, Srushti M., and Namita D. Desai, 'Colonic Bacterial Enzymes: Pharmaceutical Significance and Applications.' Editor(s): Shashi Lata Bharati and Pankaj Kumar Chaurasia, *Research Advancements in Pharmaceutical, Nutritional, and Industrial Enzymology*, Global, 2018, pp. 71-99. <https://doi.org/10.4018/978-1-5225-5237-6.ch004>
  16. Pratima Tatke, Lal Hingorani, 'Extraction and Characterization of PhytoPharmaceuticals', *Emerging Trends in Phytopharmaceuticals*, CBS Publication House, Delhi, 2015, 24-34.
  17. Priti Patil, Pratima Tatke, 'Characterization of Betaine from seeds', *Betaine : Chemistry, Analysis , Function and Effects*, Royal Society of Chemistry, Cambridge, UK, 2015, 156-174.
  18. Dr. S. S. Mahajan, *Instrumental Methods of Analysis*, Publisher Popular Prakashan, New Delhi, ISBN: 9788179915776, 8179915778, Publication Year: 2010

#### Research publications

1. Monika L. Jadhav and Pratima A. Tatke (2025) Kalmegh Capsules as Adjuvant to Tuberculosis Treatment, *International Conference on Climate Change (ICCC2025)*, Paper ID 89, Conference Proceedings, BOOK I, ISBN : 978-93-48606-60-0, 141-146
2. Shraddha S. Joshi and Pratima A. Tatke (2025) Study on Bioavailability Enhancement of Metformin using Phytoconstituents, *International Conference on Climate Change (ICCC2025)*, Paper ID 89, Conference Proceedings, BOOK I, ISBN : 978-93-48606-60-0, 223-227
3. Niserga D. Sawant, Pragati Kokate and Namita D. Desai, (2025) Non-Invasive approach to improve brain delivery of selected CNS drug using enriched nanoformulations, *International Conference on Climate Change (ICCC2025)*, Paper ID 89, Conference Proceedings, BOOK I, ISBN: 978-93-48606-60-0, 240-244
4. Niserga D. Sawant and Namita D. Desai, (2025) Mechanisms and Biomarkers of menopausal transition, *APTI Women's Forum Newsletter*, Theme issue on Perimenopause and Menopause: Easing the transition, *APTI Women's Forum Newsletter*, Jan - Apr, 2025, 14-18
5. Monika L. Jadhav and Pratima Tatke (2024) A review of traditional and modern science convergence in Indian phytopharmaceutical *APTI Women's forum e-newsletter* Sept- Dec 2024
6. Niserga Sawant, Namita Desai, Shashikant Joshi, Pratima Tatke, (2024) Chitosan Functionalized Intranasal Nanoemulsions of Iloperidone for Improved Brain Delivery–Development, in Vitro and in Vivo Studies: 5th World Conference on Chemistry and Chemical Engineering and 5th World Conference on Advanced

Materials, Nanoscience and Nanotechnology, Rome, Italy, May 2024, DOI: 10.62422/978-81-970328-7-5-021

7. Tanmayee Joshi, Isha Patel, (2024) Antibiotic-Smart Hospitals and the fight against Antimicrobial Resistance: Lessons learned from the Kerala Model International Journal on Community Pharmacy 5 (3) JULY SEPT.
8. Vanshika K Raut, Dr. Tanmayee Joshi and Dr. Rohini Waghmare, (2024) An overview of Indian herbs with the potential in the treatment of the Alzheimer's disease Journal of Pharmacognosy and Phytochemistry, 13(3): 165-178
9. Sawant, N.D., Tatke, P.A. & Desai, N.D (2024) Systematic Approach in the Development of Chitosan Functionalized Iloperidone Nanoemulsions for Transnasal Delivery, *In Vitro* and *In Vivo* Studies. *AAPS PharmSciTech*, 25, 247 <https://doi.org/10.1208/s12249-024-02964-x>
10. Aruna Murugan, Niserga Sawant, Vasanti Suvarna and Namita D Desai (2025) Lipid microspheres for topical delivery of Norfloxacin – development and evaluation, *Recent Advances in Drug Delivery & Formulation* (Manuscript accepted for Publication)
11. M Jadhav, P Tatke, *Allium cepa* L., A potential hepatoprotective and antituberculosis agent, *Indian Journal of Experimental Biology (IJEB)*, 2024
12. Minakshi Nehete, Suparna De, Mariam Degani, Pratima Tatke, (2023) A topical formulation of *Anacardium occidentale* L. leaves extract enhances wound healing via mediating TNF- $\alpha$  and TGF- $\beta$ , *Indian Journal of Experimental Biology (IJEB)*, 61:06, 424-435
13. Aparna D. Palshetkar, Saniya S. Jadhav, Nitija D. Save, Asfiya F. Khan, Namita D. Desai (2024) Formulation design and evaluation of Iloperidone nanosuspensions for nasal delivery using wet-milling approach, *Current Nanomedicine*, doi: 10.2174/0124681873 2988 5124 0702094437
14. Vasanti Suvarna, Niserga Sawant and Namita D Desai (2024) Curcumin conjugated Nanoparticles-An approach to target Mitochondria, *The Natural Products Journal*, 14 (1), 2024, 10.2174/2210315513666230515143651
15. Vasanti Suvarna, Niserga Sawant, Pradnya Jadhav, Namita D Desai (2024) Bile acid conjugated nanoparticles – an emerging approach for site specific drug targeting, *Current Nanomedicine*, 14 (3), 212-226
16. Palshetkar A.D, Rasal A., Murugan A. and Desai N.D (2023) Natural product-derived phytochemicals as potential inhibitors of angiotensin converting enzyme 2 (ACE2): promising drug candidates for COVID-19, *Current Drug Therapy*, 19 (1), 13-29
17. Jadhav M, Tatke PA, 2024, *Allium cepa* L., a potential hepatoprotective and antituberculosis agent, *Indian Journal of Experimental Biology*, 62(01):37-48.(Impact factor: 0.6)
18. Palshetkar A.D, Rasal A., Murugan A. and Desai N.D, 2024, Natural product-derived phytochemicals as potential inhibitors of angiotensin converting enzyme 2 (ACE2): promising drug candidates for COVID-19, *Current Drug Therapy*, 19 (1), 13-29 (Impact factor: 0.6)
19. Vasanti Suvarna, Niserga Sawant and Namita D Desai, 2024, Curcumin conjugated Nanoparticles - An approach to target Mitochondria, *The Natural Products Journal*, 14 (1), 2024, 10.2174/2210315513666230515143651 (Impact factor: 0.8)
20. Minakshi Nehete, Suparna De, Mariam Degani & Pratima Tatke, 2023, A topical formulation of *Anacardium occidentale* L. leaves extract enhances wound healing via

- mediating TNF- $\alpha$  and TGF-  $\beta$ , Indian Journal of Experimental Biology, 61:424-435 (Impact factor: 0.6)
21. Jadhav M, Tatke PA, 2023, Quality by design approach for the quantitative determination of andrographolide, gallic acid and quercetin from polyherbal tablets by instrumental thin-layer chromatography, JPC–Journal of Planar Chromatography–Modern TLC, Nov;36(4):279-94 (Impact factor: 1.6)
  22. Priyanka V Patil, Mala D Menon, Aparna D Palshetkar and Namita D Desai, 2023, Studies on topical delivery of Mupirocin calcium nanostructured lipid carriers using full thickness excision wound healing model, Journal of Wound Care, 32 (Sup5a), lxiii-lxxiv (Impact factor: 2.63)
  23. Vasanti Suvarna, Niserga Sawant and Namita D Desai, 2023, A review on recent advances in mannose functionalized nanocarriers for targeted delivery in cancer and infective therapeutics, Critical Reviews<sup>TM</sup> in Therapeutic Drug Carrier Systems, 40(2):43–82 (Impact factor: 2.7)
  24. Menon SA, Tatke PA, 2022, Development and validation of a high-performance thin-layer chromatographic method for the simultaneous estimation of berberine, gallic acid, mangiferin, and quercetin in Amritameharichurnam, JPC–Journal of Planar Chromatography–Modern TLC, Nov;35(5):453-61 (Impact factor: 1.6)
  25. Joshi, T.A. and Tatke, P.A., 2022. Network Pharmacological Evaluation of Glycyrrhiza glabra for its Activity against Neuropathic Pain. Indian Journal of Pharmaceutical Sciences, 84(6), pp.1398-1406. (Impact Factor: 0.623)
  26. Mallya, Rashmi; Bhitre, Milind, 2022, Evaluation of Antileukemic and Antimalarial Potential of *Zanthoxylum rhetsa* DC (Rutaceae), A Well-known Spice, Current Drug Therapy, Volume 17, Number 3, pp. 208-216(9) (Impact factor: 0.6)
  27. Dhum, P., Nehete, M. and Maheshwari, R., 2022. Novel Ecofriendly Technique For Spectrophotometric Analysis Of Diclofenac Sodium Tablets Using Melted N, N-Dimethylurea As Solid Solvent. Indian Drugs, 59 (04):46-50. (Impact Factor: 0.117)
  28. Khan Sania, Sawant Niserga, Mehendale Prachi and Desai Namita, 2022, Topical Delivery of Extractive Phytoconstituents of Soyabean Seeds For Management of Psoriasis, Indian Drugs, 59 (10), 91 – 94 (Impact factor: 0.13)
  29. Shweta Bhutada, Maryam Maqsood, Monika Jadhav, A Pavani, MantripragadaBhagavanraju, Pratima Tatke, COVID-19-A Pandemic in need of control, Journal of Advanced Scientific Research, 2021; 12 (4) Suppl 1: Dec.-2021
  30. Kulkarni, M., Sawant, N., Kolapkar, A., Huprikar, A. and Desai, N., 2021. Borneol: a promising monoterpenoid in enhancing drug delivery across various physiological barriers. AAPS PharmSciTech, 22(4), p.145. (Impact Factor: 4.026)
  31. Palshetkar A.D, Kitture S. and Desai N.D, 2021, Topical gel of extract of *Mangifera indica* L. seed kernels; an indigenous plant waste for potential anti – acne activity, Indian Drugs, 58 (5), 73 – 76 (Impact factor: 0.13)
  32. Priyanka, M.M., Ujwala, S.A., Kalyani, S.M. and Desai, N., 2021. In situ Gels of Acyclovir Nanoemulsions for Improved Delivery to the Eye. Drug Delivery Letters, 11(3), pp.265-273. (Impact factor: 0.84)

33. Mallya, R. and Bhitre, M.J., 2021. Cytotoxic activity and initiation of apoptosis via intrinsic pathway in jurkat cells by leaf extract of *Zanthoxylum rhetsa* DC. *Nutrition and Cancer*, 73(9), pp.1768-1779. (Impact factor: 2.816)
34. Desai, S., Tatke, P., Gaitonde, V. and Gabhe, S., 2020. Fast HPLC-DAD Method for Estimation of Catechin for Standardization of Extracts and Antiasthmatic Polyherbal Formulations Containing *Albizia lebbek*. *Indian Journal of Pharmaceutical Education and Research*, 54(3), pp.550-555. (Impact Factor: 0.683)
35. Joshi, T.A. and Tatke, P., 2020. Neuroprotective effects of licorice extracts in tibial and sural transection induced neuropathic pain in rats. *Indian Journal of Pharmaceutical Education and Research*, 54(2), pp.S285-94. (Impact Factor: 0.683)
36. Palshetkar, A., Pathare, N., Jadhav, N., Pawar, M., Wadhvani, A., Kulkarni, S. and Singh, K.K., 2020. In vitro anti-HIV activity of some Indian medicinal plant extracts. *BMC Complementary Medicine and Therapies*, 20, pp.1-11. (Impact Factor: 4.782)
37. Joshi Tanmayee Amit and Tatke Pratima Arun, 2020. Extract of *Withaniasomnifera* attenuates tibial and sural transection induced neuropathic pain. *Indian Drugs*, 57(3), pp.27-36. (Impact Factor: 0.117)
38. Srushti M. Tambe and Namita Desai, 2020, Development and Evaluation of Bioresponsive tablets of selective COX – 2 inhibitor for colonic drug delivery, *Drug Delivery Letters*, 10 (1), 72 – 83 (Impact factor: 0.84)
39. Nakanekar, A., Kohli, K. and Tatke, P., 2019. Ayurvedic polyherbal combination (PDBT) for prediabetes: A randomized double blind placebo controlled study. *Journal of Ayurveda and integrative medicine*, 10(4), pp.284-289. (Impact factor: 0.143)
40. Jain, D.D. and Desai, N.D., 2019. Development and Evaluation of Particulate Microcarriers of Adapalene as a Topical Delivery System. *Drug Delivery Letters*, 9(3), pp.222-233. (Impact Factor: 0.84)
41. Natu, K.N. and Tatke, P.A., 2019. Essential oils—prospective candidates for antifungal treatment. *Journal of Essential Oil Research*, 31(5), pp.347-360. (Impact Factor: 2.532)
42. Trimukhe, C., Patil, P., Sheth, K. and Desai, N., 2019. Studies on nanolipidemulgel of nimesulide for transdermal delivery. *Indian Drugs*. 56 (9), pp74 – 77. (Impact Factor: 0.117)
43. Jain, D.D. and Desai, N.D., 2019. Role of lipid excipients in oral sustained release drug delivery systems. *Pharma Times* 51 (09), pp45 – 47
44. Mehendale, P.C., Athawale, R.B. and Singh, K.K., 2019. Article Details Development and Validation of Rapid and Simple Bioanalytical Method for Docetaxel with One Step Protein Precipitation. *Indian Drugs*. 56(7), pp 23-32 (Impact Factor: 0.117)
45. Desai, S. and Tatke, P., 2019. Phytochemical markers: classification, applications and isolation. *Current Pharmaceutical Design*, 25(22), pp.2491-2498. (Impact factor: 5.8)
46. Takalkar, D. and Desai, N., 2018. Nanolipid gel of an antimycotic drug for treating vulvovaginal candidiasis—development and evaluation. *AAPS PharmSciTech*, 19, pp.1297-1307. (Impact Factor: 4.026)